

Distance Learning In The Covid-19 Pandemic Based On Information And Communication Technology To Strengthen Country

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Abstract

The purpose of this research is to find out about distance learning during the Covid-19 pandemic and to provide the right learning model. The research method used is a library model obtained from documents and learning articles, with pandemic online learning. Data were analyzed with descriptive qualitative, to reveal the phenomena and events that occurred. Valid data source analysis. The results of the research can explain the problems in online learning, and the components of online learning, as well as meaningful collective learning in online learning, namely: (1). Pedagogic constructs, (2). Learning strategies, (3). Pedagogic tools or Internet and web-based technologies. Analyze and provide input on influencing facts, namely: (1). Internet speed. (2). There is no social interaction, between lecturers with students, (3). Lecturers are less able to control students. Online learning is an alternative solution to organizing education through learning during the Covid-19 pandemic, so by utilizing information and communication technology it can carry out systematic learning, achieve educational goals, and improve the quality of graduates.

Keywords: Learning, Covid-19 Pandemic, Information, and Communication Technology

1. INTRODUCTION

Education is the right of every child of the nation which has been stated in In the opening of the 1945 Constitution of the Republic of Indonesia in the 4th paragraph, namely protecting the insult of the nation and all of Indonesia's bloodshed and promoting the welfare of the general public, and educating the nation's life, and being involved in carrying out world liberation based on the freedom of the rights of all nations, lasting peace, and social justice. In addition, it is also stated in Article 31 Paragraph 1 of the 1945 Constitution of the Republic of Indonesia, namely "every citizen has the right to education". In this article, the government should closely monitor the process of developing education in Indonesia to reduce the loss of every citizen's right to education (Putri, 2020). In the Law of the Republic of Indonesia Number 20 of 2003, concerning regulating the Indonesian national education system, in article 11 paragraph 1. That has mandated that the central government and regional governments are obliged to provide services accompanied by convenience and guarantee the implementation of quality education for every citizen regardless of discrimination.

The era of globalization is marked by rapid changes in various fields of life, especially in the location of education. These changes are driven by advances in information communication and technology which demand the availability and affordability of educational services that can provide opportunities to learn anywhere, anytime, and from anyone, about anything, in any way, and source according to conditions and needs. Education (learning) is a lifelong process, namely learning from birth to the end of life which is held in an open and

multi-meaning way. Life-long education takes place openly through formal, non-formal, and informal channels that can be accessed by students at any time without being limited by age, place, and time. Learning with an open system or distance learning system is carried out with flexibility of choice and completion time of cross-unit programs and educational pathways (Multi entry-multiple exit system) (Ministry of National Education Strategic Plan, 2014).

That the rapid development of information, communication, and technology in the current era of globalization cannot be avoided which has an impact on the world of education. Information and communication technology is the development of information systems by combining computer technology with telecommunications. Communication and technology information, as knowledge, has been disseminated quickly, so that it is easily accessible to anyone who needs it. Education has experienced great distortions and problems. So the role of lecturers and teachers who are sources of knowledge has been transferred to social networks and education. then the role of the presence of teachers and lecturers in the classroom will be increasingly challenging and open up opportunities and require teachers and lecturers who are creative and think highly.

Development of learning-oriented to higher order thinking skills or Higher Order Thinking Skills (HOTS) was developed as an effort to improve the quality of learning and improve the quality of graduates and develop Strengthening Character Education and learning oriented to Higher Order Thinking Skills (HOTS) in facing era industrial revolution 4.0 (21st century).

The outbreak of the Covid-19 pandemic can change the pattern and order of education. The learning process that is carried out face-to-face in class, turns into distance learning. The learning process is carried out online by utilizing a network of communication information systems and technology. The benefits of online learning have changed the educational process through digital learning. Infectious disease as a pandemic that first appeared in Wuhan, China in December 2019. So the online learning system carried out by the world of education for the learning system between lecturers and students, teachers and students are carried out online remotely by utilizing the internet network due to the Covid-19 pandemic. The implementation of learning, even though it continues to be carried out, must go on without stopping, to improve the quality of education and the standard of living of the community in improving the lives of the nation.

Based on the discussion above, to explain the learning problems that are carried out online and remotely due to the Covid-19 pandemic. The right strategy is carried out to answer problems in overcoming online learning problems, by utilizing information, communication, and technology so that education in Indonesia is of high quality.

2. RESEARCH METHODS.

To obtain data related to the topics discussed, the authors use the library study method. In addition, Obtain data supported from several documents, and several scientific articles, as well as learning materials related to the Covid-19 pandemic. Some of the data were also obtained from national and international journals with various other sources. Then the data that has been collected and is valid is analyzed using a qualitative descriptive method, namely a research method that reveals several phenomena that occur, as well as facts and data, it is necessary to analyze the statements obtained from the sources studied.

3. RESULTS AND DISCUSSION

The development of an increasingly globalized world is influenced by developments in information and communication technology. Globalization makes the world full of competition

and networking, so mastery of information and communication technology is an important factor to survive and compete. For this reason, it is necessary to find ways to effectively accelerate the utilization of information and communication technology, which has enormous potential. Distance education is organized into various learning patterns which rely on the availability of various learning resources (Warsita, 2011). As for what is meant by learning resources facilities, resource persons, environment, learning materials, and media used by students in the distance learning process. The current implementation of distance learning.

Distance learning in its implementation is according to the foundation in distance learning proposed by Babbage, who said that the key components in distance learning are: The components of online learning collectively encourage students to be active in learning and improve the quality of their learning: (Dabbagh-Bannan, 2005)

- a. Pedagogical learning model.
- b. Instructional learning strategy model
- c. The web-based online learning model

The three main components of distance learning work collectively to encourage meaningful learning and interaction, these three components influence each other: (1). Pedagogic models or constructions, (2). Learning and learning strategies, (3). Pedagogic tools or online learning technologies, Internet and web-based technologies. These three components form an iterative relationship in which a pedagogic model or construction is based on learning as a social process to provide information in designing an online learning environment, which leads to the specification of learning strategies which are then implemented or enforced through the use of learning technology that functions in supporting the distance learning process. The three components of distance learning can be seen in Figure 1.1 below:

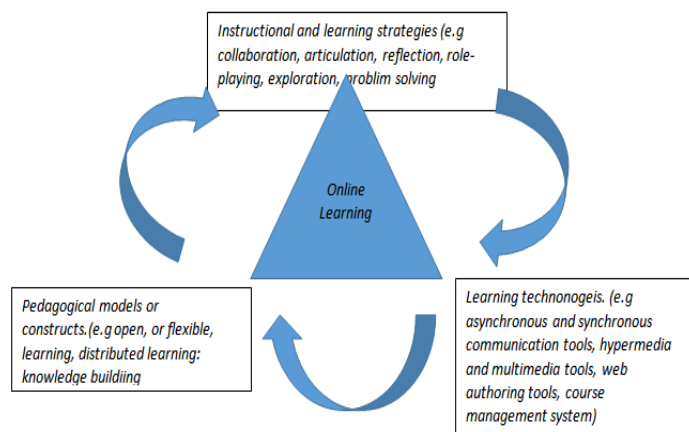


Figure 1.1 Three-Component Model For Online Learning

3.1. Distance Learning Management

G.R. Terry (1978) quoted by Abbas defines management as preparing plans, driving activities, and achieving the desired results through the involvement and utilization of human resources. This management concept emphasizes the activities of carrying out certain activities using the power of other people. Learning management is a process for coordinating various learning resources, such as lecturers, students, learning infrastructure, and so on to achieve educational goals and objectives. Management of the learning process is a very important strategy to improve the quality of student learning during the Covid-19 pandemic. Various

attempts have been made to improve the quality of education while still considering health. The learning process is very important in educational institutions. So it takes the right method or method so that the teaching and learning process achieves the learning objectives that have been determined. Lecturers as educational facilitators must be able to create enjoyable learning conditions even in distance learning conditions. As a lecturer, you must be able to choose and apply learning methods according to the complexity of the material and the character of each student. The role of lecturers and teachers is very important and needed in managing student learning, preparing and planning management, organizing and structuring the organization, implementing and evaluating learning to improve the online learning process during the COVID-19 pandemic, in implementing online learning that is carried out remotely using the Internet.

The right solution is that those who manage in the field of education must improve education management online. Several steps following the scope of management as follows:

- a. Doing planning, everything must be planned so that the results obtained are right on the desired target, the government must do planning to start with how the distance learning system is carried out, the facilities provided, and what actions and responses must be taken if unwanted things happen. The reach of education is not only for students in big cities but also for students in remote parts of Indonesia who often experience difficulties in terms of networking. Therefore, proper planning is needed.
- b. Organizing or organizing is the management and arrangement of all available resources within the organization, both human resources and material resources. Organizing includes the division of tasks, determining the level of authority, and delegation of authority which is the power to act responsibly.
- c. Implementation of Actuating. Or mobilizing is the activity of moving and controlling all organizational resources to achieve educational goals and educational goals. In (actuating) carried out the unification of all activities and the creation of cooperation from all existing components in distance learning, so that learning objectives can be achieved smoothly and efficiently.
- d. Evaluation is the final stage is carrying out the evaluation needs to be carried out, so that the elements or components that exist in distance learning can work together well, and have the same movement towards achieving the goals of distance learning. If deviations are found, corrective action is immediately taken against these deviations. Carry out evaluations to obtain feedback on the implementation of distance learning, as material in studying, analyze each component of distance learning, and improve the quality of learning better according to predetermined educational goals.

3.2. Distance learning strategy.

The success of lecturers in providing effective learning is marked by the existence of a learning process for students so that they are expected to have knowledge, skills, and attitudes according to the standards that have been formulated in educational goals. Learning is the interaction of lecturers with students. This process is not only the provision of knowledge information from lecturers to students without developing students' creative ideas but through reciprocal communication between lecturers and students so that there is a learning atmosphere that supports students to learn actively. A good learning process is when students are active in learning, active in increasing their awareness to understand the subject matter so that lecturers are expected to also increase their activeness in learning through providing guidance, encouragement, stimulation, and direction on how to learn and help students who have learning difficulties.

Distance learning strategies are all efforts made by lecturers so that the learning process occurs in students through active learning. Learning activities will be meaningless if they do not produce learning activities for students which are characterized by increasing the ability of students. The essence of learning is how to create a learning process that occurs in students who are actively learning by using several learning methods that are appropriate to the learning material and are supported by learning media.

3.3. Factor Analysis and Distance Learning Constraints.

National education is regulation through learning to improve and develop and shape students to understand the character and be able to educate the life of the nation, which aims to develop the potential of students so that they become students who believe and have a noble character, are healthy, knowledgeable, creative, independent, and democratic and responsible for everything. Distance learning is enabling students to obtain education independently by using various learning resources with learning programs that suit the characteristics and needs of students. Distance learning is expected to overcome the problem of inequality in the distribution of learning opportunities and to improve the quality of education, relevance, and efficiency in the field of education caused by obstacles such as distance, place, and time.

Associated with the quality of education in distance learning which is held using online media, there are still many obstacles and influencing facts. Obstacles in the implementation of distance learning can be analyzed from various aspects of education including:

- a. Infrastructure. In carrying out distance learning it must be supported by good facilities, in this case, the implementation of distance learning still needs to be improved because there are still obstacles faced by students and lecturers regarding internet networks which often experience limitations in internet speed sometimes making the delivery of material unclear and hindering the teaching and learning process, for this reason, it is necessary to support facilities, especially the addition of the internet network to support the implementation of distance learning.
- b. Students. One of the characteristics of distance learning is the physical separation between lecturers and students, thus making the interaction between lecturers and students or between other fellow students non-existent or lacking at all. This lack of interaction makes the lecturer less close or intimate with students which can hinder or interfere with the success of the learning process.
- c. Lecturer. Lecturers must know and master strategies, and methods of learning techniques based on information and communication technology which may not be mastered during conventional learning. If the lecturer does not master it, In the process of transferring knowledge based on information communication and technology, from lecturers to students and teachers to students is a learning process in improving the quality of graduates. Lack of knowledge and skills or skills and knowledge that operate computers and make optimal use of the internet. For this reason, human data sources are needed, such as lecturers who are skilled at using computers and the internet optimally in learning techniques.

3.4. Development of Distance Learning Methods

Distance learning is a learning model that gives students the freedom to be able to learn without being bound by space and time with a little help from other people. The development of distance learning starts with careful planning and adequate resource support so that the implementation of distance learning can be carried out effectively and efficiently and

evaluation of learning is carried out continuously so that the obstacles encountered can be improved and developed.

The development of effective and efficient distance learning methods can be done by developing several educational components including the following

- a. Lecturer. Perfect ability physically, intellectually, and emotionally or having three abilities, namely: knowledge, skills, and attitudes. Students have abilities that must be developed, and for that, a lecturer must understand the appropriate methods and media to develop these abilities. The development of learning media is rapidly developing along with the development of information and communication technology. By utilizing the development of information and communication for the educational aspect, it can be implemented in distance learning, which can reach all levels of society who live in various places, even in remote or inland areas, so that educational equity efforts can be carried out. In carrying out distance learning, lecturers must develop their abilities, especially learning methods must be varied which are supported by information technology, so that students can easily understand the material presented so that the quality or quality of education can be realized. Distance learning forces students to study independently. Independent learning is a learning process that is based on the initiative, desires, or interests of the students themselves, so independent learning can be carried out alone or in groups, such as tutorial groups.
- b. Lecturers'duties aside from transforming knowledge, are also required to design learning materials into models according to independent learning patterns. Learning materials in distance learning are developed and packaged and combined with other media that students can use for independent learning. The role of the lecturer in implementing distance learning is to develop learning content, adapted to the needs of students and learning objectives. Lecturers must always develop professionalism to improve and develop their skills, attitudes, and knowledge, this is a demand that must be carried out by a lecturer in following developments in information and communication technology in supporting learning and developing learning strategies to meet the needs of students
- c. Learners. The process of distance learning through e-learning uses internet services which require students to learn independently to acquire knowledge or information provided by lecturers, and also students can add knowledge or information from various learning sources such as journals and libraries. which can be accessed via the internet, so they don't depend on information only from lecturers. Each learner has a different way of learning according to their respective characteristics. The effectiveness of student learning methods is not necessarily effective for other students. Therefore, each student has an independent learning strategy, which differs from one student to another. To find the most effective learning strategy for himself, a student needs to understand the concept of understanding independent learning because the concept of independent learning is individual. Learners must character in themselves about learning concepts that are suitable and follow their abilities. If students have found the accuracy of independent learning that is following their character, the learning process will be easy to understand and implement. The educational paradigm that was previously centered on lecturers has changed to become student-centered or "Teacher Center Learning to Student Center Learning", which is what happens in distance learning. With distance learning, students will become more creative so that they can lead interaction with lecturers, which is one of the requirements for learning to occur.
- d. Education personnel. The task of the education staff is excellent administrative services, professional management, continuous coaching, strict supervision, and specific technical services to support the learning process in educational units, the educational staff who carry out their work are more required to have technical operational or administrative

technical skills because they have to prepare facilities and infrastructure before implementation. learning begins, and monitors during learning and ensures learning goes well and smoothly. With this task, it is expected that educators will have more competence, especially in supporting the implementation of distance learning and understanding internet networks and internet system utilities. Because in carrying out their work they rely on educational academic expertise, education staff in supporting distance learning must have certain expertise

- e. Facilities and infrastructure. The Internet is an information and communication network that is a revolution in technological development. Information and technology occur because of the convergence between communication technology, computers, and broadcasting (broadcasting). The internet network has become a necessity for many people so it affects various lives. The internet has developed from a medium for exchanging information into a means for carrying out various activities, including in the field of education, especially learning activities. For this reason, the world of education needs to create an internet-based education system so that it can reach users who so far have had constraints regarding the place and limited time to get an education. Achieving the effectiveness and efficiency of distance learning programs requires research, planning, and design at various sectors and levels. Designing a distance learning program requires commitment from all elements of the educational institution. The use of Internet technology has advantages, including (1) the ability to penetrate the boundaries of time and place. (2). Ease of updating learning materials or information to be conveyed. (3). Facilitate the relationship between students and lecturers (4). Wide openness to learn science e) Opportunity to deepen the learning material being studied without being limited so that one can learn to the limit of one's abilities.

Utilizing the internet network through learning media, with the development of knowledge, communication information systems, and technology that can be used in learning properly. Science and technology can assist in the online learning process so the use of technology must be addressed by obtaining benefits that are useful for improving the quality of education.

4. CONCLUSION

Based on detailed analysis and discussion data which has been described through the stages, a concluding trick can be obtained that answers the formulation of the research problem as follows:

- a. Analyze the implementation of the distance learning process. The learning process is the heart of education, so distance learning occupies a very important position. The three main components of online learning work collectively to encourage meaningful learning and interaction. Education management is preceded by good planning and followed by implementation and ended by carrying out learning evaluations, then utilizing information and communication technology, especially internet technology to support educational interests in learning development.
- b. Analyze the factors and obstacles that hinder the distance learning process. Some obstacles and facts affect it, namely: (1). Limited internet speed. (2). There is no social interaction, (3). Lecturers are less able to control students.
- c. Analyzing the development of an effective and efficient distance learning model. web and internet networks are useful in the world of education because they can contribute to accelerating the equal distribution of learning opportunities and improving the quality of learning by providing as complete information as possible and were formed to improve

the quality of human resources to become professional. Develop educational components, namely: (1) lecturers must develop varied learning methods supported by information and communication technology. (2). Students must understand the character in themselves about the concept of learning. (3). Educational staff must have certain expertise, through educational academic expertise. (4). Creating an internet-based education system so that it can reach users who have had constraints regarding the place and limited time to get an education.

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