



Effective Learning Form Afar: Optimizing Distance Learning During A Pandemic

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ABSTRACT

The distance learning should be able to respond to the challenges of the 21st century which require students to have skills, knowledge and abilities in the fields of technology, media and information, learning skills and innovation. Such as the substantial problems that occur during learning at home are difficulty getting access and stable internet facilities, not having access to books with good reading levels, and other problems. This research uses systematic review method, meta-analysis. Through this research, various efforts can be found to make learning effective in a pandemic by improving 21st century skills. Hence, this research has implications for teachers to be able to understand various potential problems in learning and to see how alternative solutions to problems are so that educators are able to apply learning to be more effective and efficient.

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1. INTRODUCTION

Currently the world is facing a covid-19 pandemic outbreak. The Covid-19 pandemic is a disease caused by a new coronavirus associated with the same virus family as Severe Acute Respiratory Syndrome (SARS) and several types of common cold viruses (WHO, 2020). The Covid-19 pandemic has impacted on various aspects of people's lives. One of the aspects that is affected by this pandemic is education. Due to the existence of Covid-19, it hampers all face-to-face learning processes that have usually been carried out so far. So from this problem distance learning is in use. As has been done by 138 other countries which have taken a policy of not implementing face-to-face learning, and turning it into online distance learning (Van Lancker et al, 2020). This type of learning is required to be an effective effort that is most precise to be use during this pandemic, because through online-based distance learning participants do not directly carry out face-to-face learning. Through online learning, learning materials are still delivered, this not only pays attention to the most essential thing of education, namely the transfer of knowledge but also pays attention to other essential things in students, namely health. Online learning is also being pursued to reduce massive transmission of the Covid-19 virus that occurs in schools. The concept of online learning should be an effective and efficient strategy because it can facilitate access to various sources of information, which includes local, regional and global information.

The concept of online learning can also improve the skills and potentials of students. In addition, distance learning is currently expected to provide other solutions for students so that they can still get access to proper education even though they are in an emergency situations like this. However, in reality, online-based distance learning experiences various obstacles that are felt by students in various countries. Substantial problems that occur during learning at home are difficulty getting access and stable internet facilities, not having access to books with good reading levels, and other problems (Van Lancker et al, 2020). This happens because there is no readiness to face a change quickly. But apart from these problems, it turns out that the concept of online learning that is currently being carried out still causes a lot of unrest in the community. Currently with online learning, the role of educators becoming facilitators has changed, educators are currently doing one-way learning more often, there are more tasks, and students feel more easily bored when carrying out the learning process (Handayani, 2020).

As consequence of this is the value and concept of understanding given by educators will tend to be more difficult to understand and accept by students. This is a drawback of the results of online learning, because the value and concept of understanding provided by educators online tends to be difficult for students to understand and accept. This distance learning should be able to respond to the challenges of the 21st century which require students to have skills, knowledge and abilities within the fields of technology, media and information, learning skills and innovation (Wijaya dkk, 2016). It should be understood carefully according to Benjamin Bloom (Larson, LC, & Miller, T. 2011) that educators today must be able to build and foster students in communication and collaboration skills, integrate technology and problem-solving skills, and encourage innovative and creative thinking. So if the concept of distance learning online is still carried out in a conventional conceptual way it will hinder students from developing the skills they should master to face the challenges in the 21st century.

As a consequence of these challenges, the value and concept of understanding provided by educators in the context of online learning can become more complex for students to grasp and embrace. This presents a notable drawback of online learning results, as the distance

between educators and learners can make it challenging for students to fully comprehend and accept the knowledge being imparted. In the modern educational landscape, the 21st century demands a skill set that encompasses proficiency in technology, media, information, learning techniques, and innovation, as emphasized by Wijaya and others in 2016. It is imperative to heed the insights of Benjamin Bloom, as discussed by Larson and Miller in 2011. Educators today must not only transmit knowledge but also nurture students' communication and collaboration skills, facilitate the integration of technology into their learning experiences, foster problem-solving abilities, and encourage innovative and creative thinking.

In light of these challenges, it becomes evident that the value and concept of understanding imparted by educators in the realm of online learning can be significantly more intricate for students to fathom and embrace. This presents a distinct drawback in the outcomes of online education, as the physical distance between educators and learners can render it arduous for students to fully grasp and accept the knowledge being conveyed. In the contemporary educational landscape, the demands of the 21st century necessitate a skill set that encompasses proficiency in technology, media literacy, information assimilation, effective learning strategies, and innovation, as underscored by Wijaya and his colleagues in their 2016 research.

It is paramount to heed the insights of Benjamin Bloom, as expounded upon by Larson and Miller in 2011. Present-day educators must not merely act as disseminators of knowledge but also as cultivators of students' communication and collaboration skills, facilitators of technology integration within their learning experiences, promoters of problem-solving prowess, and champions of innovative and creative thinking.

However, if online distance learning continues to adhere to conventional conceptual frameworks, it could inadvertently hinder students from developing the essential skills they need to confront the challenges of the 21st century. Therefore, it becomes imperative for educational institutions and instructors to adapt and innovate their teaching methodologies, bridging the chasm between traditional pedagogical approaches and the evolving needs of students in this digital era.

The 21st century is an era marked mostly by the evolution of technology, information, communication and globalization, so the need for innovation is very important. Therefore, students today must be equipped with basic competencies and skills that are relevant to the needs of the 21st century. So, even though learning is carried out remotely, educators are required to be able to innovate properly so that they are able to develop all the skills and potentials of students in today's emergency. Another challenge for educators is to ensure that the learning carried out does not only convey information or knowledge, but also conditions students to participate in the learning process and have motivation and enthusiasm. So, educators must be able to determine appropriate and varied learning methods. Based on the explanation above, teachers must be able to adapt or transform to existing conditions so that the challenge of the COVID-19 pandemic becomes an opportunity to improve teacher competence as stated in one of the impacted COVID-19 country Indonesia, where it is described that the Law on Education No.14 of 2005 which includes personality, social, pedagogic, and professionalism because basically these competencies also have an effect on increasing the ability of students. The ability of students which includes critical thinking, creative, collaborative and communication. Therefore, it is necessary to add more references and studies about how the Covid-19 pandemic and its relation to the learning process and its implications for teachers and students. So that through this study, teachers can understand various potential problems in learning and see how alternative solutions toward these problems so that educators are able to apply learning to be more effective and efficient.

2. RESEARCH METHOD

The systematic review method is a method that is carried out by systematic identification and with the systematic review method it can avoid subjective identification, so it becomes a literature substance that presents facts more comprehensively (Triandini et al., 2019). In conducting this research, the researchers looked for secondary data, by looking for various articles that were relevant to the effectiveness of distance learning and were limited from 2005-2020. Also, the location of the data-base within this study is from Google Scholar and Elsevier. The technique used in this research is meta-analysis. Meta analysis was chosen as a research technique because it can obtain an estimate of the effect size, namely the strength of the relationship or the magnitude of the difference between variables and to control the potential variables as confounding so as not to disturb the statistical significance of the relationship or difference.

The meta-analysis process according (Siswanto, 2012) states that there are 8 steps, namely: 1) Identifying research questions, 2) Developing a meta-analysis research protocol, 3) Establishing a research data-base location as a research area as a search area, 4) Selection of relevant research results, 5) Select relevant research results, 6) Extraction of data from individual studies, 7) Synthesis of research results using meta-analysis methods, and 8) Presentation of research results in the research report of the meta-analysis results. Thus, the systematic review method with the meta-analysis writing technique in this article is expected to provide a more comprehensive understanding of the effectiveness of online distance learning during the Covid-19 pandemic for the readers.

3. RESULT AND DISCUSSION

3.1. The impacts of the Covid-19 pandemic on the learning process

The current pandemic causes the learning process to be carried out remotely and completely online (Radha et al., 2020) Distance learning is actually able to provide opportunities for educators and students to further explore learning methods, media and techniques so that core competencies which are spiritual, social, knowledge and skills and additional competencies can be maximally achieved. So during emergency learning this time educators should not only focus on digital intelligence, but educators need to pay attention and create conditions for online learning by increasing comfort, intimacy and digital pedagogy training.



Picture 1. Learning process on pandemic

However the fact is, this distance learning process still has obstacles that students and educators have to face themselves. Obstacles that are felt technically are network instability, not having access to books with good reading levels, as well as other problems (Van Lancker et al, 2020). In addition, the obstacles faced during this distance learning are the lack of interaction between educators and students or even among the students themselves. Educators and students tend to ignore academic and social aspects and encourage the growth of business/commercial aspects. The occurrence of misconceptions of learning material and learning objectives, as well as obstacles for students who do not have high learning motivation, are likely to fail because this distance learning system emphasizes the independent learning aspects (Kahfi, 2020).

The same thing was stated in the research (Adnan et al, 2020) which stated that there was something that was not discussed was the motivational needs of students within distance learning. From the results of their research, it was explained that about 71.4% reported learning in conventional classrooms increased their motivation more than distance learning. In connection with the lack of motivation of students in distance learning, this is also due to the fact that students are more often given tasks that burden them during learning, which results in students feeling stressed about online assignments and moreover students have difficulty in understand the material being taught without an explanation by educators directly face to face (Pratama et al., 2020). It is not only felt by students, that onlinebased distance learning has pressure on educators as well. The unpreparedness of online learning forces educators to think outside the box. Then in a study it was stated that there was a missing meaning in education, namely teacher interaction, level of participation, and interaction between classmates during this distance learning (Al Lily et al., 2020).

3.2. Forms of distance learning in enhancing 21st century skills

If distance learning is still carried out with methods that are burdensome for students, efforts to increase learning motivation in building 21st century skills will not go well (Yuangga dkk, 2020). In addition, there are things that need to be applied to educators today, such as Theory Planned Action (TPA) which is a theory that can be used to analyze what learning activities will be carried out. This theory is part of the symbolic interactionism theory, in relation to online learning, educators must be able to position themselves as a central figure who provides enrichment but also gives students freedom to think critically.



Picture 2. 21st century skills

It should be noted that, in determining what activities will be provided by students, teachers tend to think that distance learning places more emphasis on independent learning so that it ignores good communication (Adnan et al, 2020). However, many are mistaken that communication is very important and must continue to run well so that students will more easily understand what they have learned (Kurowicka, 2020). Thus, educators must reduce learning methods that emphasize one-way communication. Students will find it difficult to ask questions and express their opinions about the teaching materials delivered by educators.

In addition, the problem of the lack of motivation of students in the learning process can be done by cooperative or group learning. The development of cooperative learning will provide synergies that arise through collaboration and increase motivation that is far greater than through individual environments when carrying out tasks or other learning processes (Pratama et al., 2020). Therefore with collaborative learning, it will build a good social network, and students will find it easier to exchange ideas and opinions with more flexibly (Huang et al., 2020)

Students should not only be given assignments or material in one direction, but educators as much as possible should be able to explore the value of critical thinking skills. Giving assignments such as Project Based Learning (PjBL) can be an effort to increase and build the criticism that students have (Mutakinati et al., 2018). Then learning using this project-based learning method will reduce excessive tasks, and educators and students will focus more on understanding the material by being directly involved in the applicable learning.

In addition, one of the learning method that requires higher order thinking skills is Problem Based Learning (PBL). If PBL is implemented correctly, students need to seek to process information from various sources, including the use of information technology (IT). Increasing creative skills in distance learning today should be easier, because there are many platforms

that educators can use, especially in this field of technology (Lervik et al., 2018). One method that can be used in this distance learning is the Edutainment method. Edutainment is a methodology that combines teaching methods and forms of play to attract students and take advantage of the active effects of play to aid our education. We can use the advantages of edutainment to increase student interest in learning, improve the quality & efficiency of teaching, and train their creative ideas (Putra et al, 2018).

4. CONCLUSION

Distance learning is not a problem that must always be debated, educational institutions and educators should be able to innovate and find better ways to overcome the problems that exist in distance learning. Educators must also be able to take advantage of various facilities and use a variety of learning methods that are tailored to the abilities of students. However, it is not only limited to developing cognitive aspects. Educators must be able to develop student needs in the future, namely 21st century skills.

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