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E-Learning in the Educational System Post COVID-19 Pandemic: a Review of the Obstacles and Opportunities to Curriculum Designers

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ABSTRACT

The COVID-19 epidemic has been spreading since the year 2019. Each country that has been affected by COVID-19 possesses its own unique political, social, cultural, economic, and educational system; however, each country has become a model for limiting the disease's further spread (COVID-19). The government and society in Indonesia are both affected by COVID-19 policies. The educational policy implemented by the government has implications for those who teach, those who regulate education, and the environment. The COVID-19 virus was a burden for educators. Learning is enhanced through media platforms with several other students. This study uses a qualitative approach to understand better educational and technological development and student benefits and drawbacks. This study uses mixed data collecting, inductive/qualitative data analysis, and qualitative research outputs to explore descriptive phenomena using the researcher's qualitative generalization technique. relates to implementing and employing e-learning platforms, the findings indicate that instructors' perceptions of the complexity of technology have a positive impact on attitude simplicity of use but have no effect on perceived usefulness. Results show that instructors' perceptions of the complexity of technology have no effect on perceived usefulness. the quality of education is crucially significant, which strongly supports both of these viewpoints.

INTRODUCTION

The coronavirus disease, known as COVID-19, has been spreading globally at an alarming rate ever since the year 2019 concluded. This pandemic has affected a broad variety of locales and periods all over the world. Additionally, it has continued without interruption until now (Shi *et al.*, 2020). One hundred governments in various regions have begun responding directly to the outbreak. Wuhan was one of the first cities where the coronavirus spread outside China after discovering that the first coronavirus disease (COVID-19) occurred in China. It was disclosed that the first cases of coronavirus illness had occurred in China. It occurred not long after discovering the illness's earliest cases in China. This finding came about when it was established that China was the location where the disease was first documented to have made its appearance. Although there are differences in the political, social, cultural, economic, and educational systems of each country affected by the coronavirus disease (COVID-19), each has served as a model for other countries in the implementation of steps to limit the spread of the illness to other regions of the world. However, each country has a unique political, social, cultural, economic, and educational system. Although every nation has distinct political, social, cultural, economic, and educational structures, this remains the case. This circumstance has occurred although every country has its political system, as well as its social system, cultural system, economic system, and educational system. Although each nation has its architectural

heritage, which is highly different from others, this is still the case (COVID-19). In response to the outbreak of the coronavirus disease known as COVID-19, Indonesia has implemented a wide variety of prophylactic measures. These preventative actions include the following: It has ramifications inside the Indonesian government's control area and simultaneously has repercussions outside the country's borders. Not only has the strategy that the government has chosen to execute in the field of education influenced practitioners, but it has also had an impact on the regulatory and environmental aspects of the company. Those who work in the education field have felt this strategy's effects (Wajidi *et al.*, 2020)

Educative activities continued to be carried out with bravery and determination during the COVID-19 outbreak. Even though the pandemic caused dread and uncertainty, it is possible to facilitate more meaningful learning by using social media to encourage engagement between educators and students. This interaction might take place while students are in class. A solution that may be used benefits the teachers and students. This objective can be accomplished through many strategies, one of which is logging onto social media platforms such as Facebook, Twitter, and Instagram. Other strategies exist as well. The students can access various online learning settings such as YouTube, Whatsapp, and Google Classroom. There are a significant number of others. Because of the time constraints imposed by the health restrictions currently being campaigned for by the Health Office and the Government, the students are separated

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into smaller groups and instructed at different times. In order to accommodate the time constraints. We do this so that we can better accommodate the time restrictions that we have. In addition to the extensive implementation of online education, this strategy is also being used for education delivered in the more conventional classroom setting.

LITERATURE REVIEW

The rigidity in responding to the Coronavirus disease 2019 (COVID-19) period will only be able to be maximized with the productivity that distinguishes meaningfulness if changes in thinking patterns, learning patterns, and scientific intention patterns utilize the learning process that occurs during a pandemic. The only way in which the rigidity in responding to the Coronavirus disease 2019 (COVID-19) period will be maximized. The maximum rigidity in our response to the Coronavirus disease 2019 (COVID-19) period will only be achieved by doing so, as this is the only method available. Doing so will be the only way to reach the highest rigidity possible in our reaction to the Coronavirus disease 2019 (COVID-19) timeframe. The sole scenario in which there is even the tiniest possibility that something of this kind will ever take place.

Everyone needs to adjust to the new reality and think about the shifts brought on by the virus as a reflection of the attitudes and behaviors that will characterize the new order to ensure that work can continue despite the outbreak. To ensure that work can continue despite the outbreak. An important to guarantee that work will be able to proceed as usual. Because of this, normal business operations can continue even when there is a virus. Performing the task this way is the only way to guarantee that it will be continued at any point. Individuals will be authorized to return to participate in their typical activities once this criterion is met and exceeded. The findings of this study shed light on the importance of adaptability because any change made to the educational system can bring about new situations that are different from the present and the future. The findings of this study shed light on the importance of adaptability because any change made to the educational system carries with it the potential to bring about new situations. The results of this research shed light on the significance of adaptability because any modification to the educational system carries with it the potential to bring about new circumstances. The findings of this study shed light on the significance of adaptation because any change made to the educational system carries with it the potential to bring about new. This research was conducted to investigate the value of adaptability. This research shed light on the importance of maintaining a flexible mindset.

Challenges in the E-learning Process

Both time and physical space are at a premium for the myriad of mundane activities that must be completed within the confines of the educational system, which

begins with preschool and continues through college. Clarity is provided to the scenario when it is heard that the learning approach is growing at each level, which provides excellent insight into the matter. Students are expected to learn within a specific block of time in the classroom; nevertheless, the timetable demands them to study in their rooms during an inconvenient period (Wagiran *et al.*, 2022). In recent years, the term “online” (which is also known as “E-learning”) has become an increasingly popular means of expressing this phenomenon. Another name for this phenomenon is “distance learning.” In the past, it was common practice to use the phrases “traditional” and “traditionally,” which are essentially interchangeable, in the same sentence. The illness brought on by the coronavirus (COVID-19) has had significant repercussions on the educational system and on integrating technology into the learning environment. Because of how reliant people are on the internet, those who wish to continue their education while the coronavirus illness is active have no choice but to pursue it in a digital format, and this is the only option that is even remotely practical COVID-19 (Gumelar & Dinnur, 2020)

Learning can occur through indirect interaction rather than the direct connection that is generally present in the educational process among the various components (students, teachers, and teaching assistants). Direct interaction learning Restrictions on direct contact between students and teachers are highly unusual in educational settings and under no circumstances be imposed in the context of community-wide quarantines that were implemented to contain an outbreak of a contagious disease. Although this restriction makes it easier for youngsters to learn, it also makes it more challenging for them to do so. The educational plans put into place and the subsequent pursuit of those goals are subject to the restrictions imposed by society, which can lead to various results depending on the situation’s particulars. Modifying the teaching methodology and the overall system are significant factors to consider throughout the adaptation phase.

The Effects of New Technologies on Online Education

One indication that the sound effects have the desired effect is the growing number of teachers who can complete work connected to the education of their students while remaining in the comfort of their homes. An indication that the sound effects have the desired effect. Through hybrid learning, students are given a chance to assume a greater level of responsibility for their education and devise methods for maximizing the utilization of the materials that are made accessible to them (Guo & Wan, 2022) They picked it up quickly and became skilled in it, even though not everyone had prior experience working in an environment centered on IT. Educators who were put in potentially risky situations that demanded instant ability were expected to adapt quickly to the new environment. Some experts have come

forward to say that the period during which they were socially isolated inspired them to complete their tasks with an exceptional degree of creativity and competence that was before unreachable to them (Fischer *et al.*, 2005) Educators of diverse ages can work together to have a better understanding of the advantages that come with making use of information technology in the classroom. The personnel who operate in the education sector use various forms of technology to carry out and organize their administrative obligations. Students, especially millennials, are getting more worried about their ability to correctly complete educational tasks and activities that rely on information technology. The process of bringing all relevant parties in the education sector up to date on their skills and knowledge includes incorporating occurring and unanticipated ideas like these as a vital component of the process. Challenges present themselves at every stage of the learning process. With the way this educational strategy is organized, sure pupils will not be able to participate. In order to perceive information technology (IT) as the recommended career route, individual preparation is necessary. This preparation can include help and even specialized recommendations. Affects the responsiveness of education practitioners, some favorable and some harmful. As a result of the incredible variety of natural skill sets possessed by individuals, it is unavoidable that some individuals will produce inconsistent responses and that there will be voids in the accomplishment of educational objectives (Nurulfa *et al.*, 2021)

The Factors that Affect the Growth of Educational Technology

The study of educational technology and the practice of designing, executing, and supervising the administration of appropriate technical procedures and resources can be referred to as “educational technology,” a phrase that can be used interchangeably in both contexts. The intention of maximizing the amount of knowledge acquired by students as well as the effectiveness of their instructors. The study of educational technology and the actual act of studying educational technology can be included in the definition of “educational technology” (often abbreviated as education technology). As the educational system attempts to solve various issues, it is confronted with several challenges today, including accessibility, quality, and social justice. These are only some of the concerns. Even though the existing state of affairs does not validate the notion that technical progress is the silver bullet that would heal all of these problems, this point of view is often pushed. As a direct result of the epidemic, more people are unable to attend college due to a lack of finances.

Furthermore, a more significant number of people can now attend college as a direct effect of the pandemic. The epidemic that has been going on is directly responsible for this situation. One significant use of technology that is frequently seen in educational settings is the teaching and instructing of pupils through the use of the internet.

The more prominent applications of technology have been noted. This frequent habit has become even more widespread over the past many years. This serves as an example of just one of the many beneficial applications that can be found for modern technology. Utilizing a wide range of different variables in terms of acceptance and modification, this study intends to establish the factors that impact the technological change that is taking place in the educational sector (Saleh *et al.*, 2023). This research aims to determine the factors that influence the change. The goal of this research is to identify the factors that are responsible for the shift in behavior. This goal will be attained by utilizing a vast number of different factors. This research aims to identify the elements that contribute to the shift so that appropriate action can be taken, and it is being carried out with that objective. These characteristics include (1) the benefits and downsides of utilizing digital technology, (2) the assessments that participants made of their digital technology competency, and (3) the capability of parents to assist their children in the utilization of digital technologies (Guo & Wan, 2022)

METHODOLOGY

This investigation will use a qualitative research methodology to obtain a more complete and nuanced picture of the factors driving technological change in education as well as the positive and negative effects that this shift has had on the students as a direct result of the shift. This investigation aims to obtain a more complete and nuanced picture of the factors driving technological change in education. Qualitative research tries to comprehend the phenomena that the subject of the study experiences, such as behavior, perception, motivation, and action (Arikunto suharsimi, 2006). In an all-encompassing and descriptive manner by utilizing words and language in a naturalistic context and employing various natural approaches. Qualitative research tries to comprehend the phenomena that the subject of the study experiences, such as behavior, perception, motivation, and action. Data gathering is considered an essential stage in the research process by adherent. This research examines the significance of qualitative research outputs concerning the researcher’s qualitative generalization approach to studying descriptive phenomena. Some of this study’s characteristics include combining (mixed) data collection procedures, inductive/qualitative data analysis, and an examination of the significance of qualitative research outputs. The study provides evidence for each one of these traits (Gorgy *et al.*, 2022). Qualitative methodology as a research method that creates descriptive data in the form of written or spoken words of individuals and observable behaviors using various existing methodologies. In other words, qualitative methodology is a research method that creates data. Qualitative methodology is a type of research methodology.

Primary data will be gathered directly from sources by previous researchers from the research gate, international journals, books, and DOI journals; secondary data will

be gathered from other studies. These will be used by the researchers in this study to support their findings. Primary data will be gathered directly from sources by previous researchers from the research gate. In addition, the concerns raised by the investigation are finally addressed by the data collected for the study. Those with knowledge and information about Teacher Performance can improve the Teaching and Learning Process by utilizing the E-Learning system as a new type of Technology in Education for Junior High Schools located in Aceh in, Indonesia. These schools are located in the country of Indonesia. The study will use primary data from previous researchers' sources on research gates, international journals, books, and DOI journals. These sources include research gates, international journals, and books. This will ensure that the study adequately solves the research issues and offers support for the assertions that the study makes. The following is a list of some of the questions to which it is hoped that the results of this research may provide answers: (a) The role of the principal as an education leader, which includes the principal's role as an educator, the data collected from the teacher, the principal's role as the supervisor of data obtained from documentation and observation, and the principal's role as the leader of data collection and analysis

Data Analysis

In order to conduct an analysis based on the data that was used, the steps that are listed below need to be carried out in the appropriate order:

1. Data reduction, sometimes referred to as the selection process, is concerned mainly with reducing, abstracting, and transforming the raw data gathered in the study area.
2. A data presentation is an explanation of a data collection, also known as a data display. This explanation can be used to draw conclusions and take action.
3. Qualitative data are often presented through narrative compositions as their primary presentation mode.

As soon as the data was collected, the researchers who utilized qualitative methods started obtaining data by examining the significance of each field indicator for their findings. This occurred immediately after the data was collected.

Scientific Study Instruments

In order to compile all of the necessary study materials, the authors gathered the necessary information using the two methods listed below:

The Academic Subfield Focuses Primarily on Analyzing and Interpreting Textual Texts

This study was carried out so that the author could acquire theoretical data by reading books, journals, papers, and other reference works that discuss Curriculum Development and E-Learning Technology in Education. This research was conducted so that the author could gain theoretical data. This study was carried out to allow the

author to acquire this knowledge. The author's intention in carrying out this research was to collect theoretical data, and they were successful in doing so due to their efforts.

Documentation

It is structured in a way that is compatible with the goals of the research in order to make it easy to grasp, and the information is presented in tables, graphs, pie charts, and pictograms. This is done to make the information as easy as possible to comprehend. In order to ensure that the information is as understandable as possible, this step was taken.

RESULTS AND DISCUSSION

It has been found that instructors' opinions of the difficulty of the technology have a positive effect on their perceptions of the ease of using e-learning platforms but have no effect on their perceptions of the value of adopting and using these platforms. This discovery was made after it was discovered that instructors' opinions of the difficulty of the technology have a positive effect on their perceptions of the value of adopting and using these platforms. The correlation between the two variables was examined, which led to the discovery of this fact. Recently, this information has come to light for a variety of reasons. Idoga, Patience E., and Dokun Iwalewa Ol. are credited with publishing these findings.

On the other hand, the educators' judgments regarding the quality of the educational experience play a vital part in raising the perceived ease of use and utility of the product. The fact that educators are in the best position to evaluate these aspects. Views held by educators regarding the overall quality of the educational experience Idoga, Patience E., and Dokun Iwalewa Ol. Compiled these findings, and their paper contains a publication of them. Blended learning is one of the pedagogical approaches that believe is ideally suited for use in this age of increased information availability (Ruparel *et al.*, 2020). They believe that blended learning is one of the most effective ways to educate students today. Blended learning is a strategy in which teachers take on the roles of facilitators, motivators, mentors, advisors, and learning partners. In these roles, they interact with students, share their knowledge and opinions, and motivate them to learn. Learning through face-to-face interaction with students is combined with online education in blended learning. In blended learning, students engage in in-person and virtual instruction to meet their educational needs.

The concept of blended learning refers to one of the new schools of thought in the field of education that has emerged in this day and age due to the proliferation of digital information (Tran *et al.*, 2019). Students were encouraged to study openly and flexibly, to comprehend how to solve problems, and to become oriented to the actual world with genuine action through practical learning when the Blended or Hybrid method of education was used. Blended or Hybrid education can also be referred

to as blended learning or hybrid instruction. The terms blended education and hybrid education are synonymous with one another can use mixed learning in place of either of those terms. Google has developed a wide variety of products, one of which is Google Classroom. Google created this environment for online learning, which is now utilized by virtually every educational organization worldwide. It has gained widespread acceptance, and there are no costs associated with using it, making it an excellent alternative for teachers employed in primary and secondary schools because there are no fees associated with using it. Because it is a web-based application, the educational tool Google Classroom requires nothing more than a connection to the internet for users to access and utilize it. Google Classroom allows users to access it from any location in the world. It is not out of the question that a significantly, more significant percentage of children will have access to various forms of information technology in the distant future. The instructor would also educate the students on how to use the platform to guarantee that the learning process is carried out correctly and that the newly gained knowledge maintains its value. This would prevent the knowledge that has recently been gained from becoming obsolete. This would be done to preserve the newly gained knowledge and stop it from being forgotten about in the future. This will ensure that the recently gained knowledge is preserved and remains relevant due to time.

The Benefits of Utilizing E-Learning Technologies for Instruction

The conclusions of the research regarding the advantages of online education have been supported by both the teachers and the students who took part in the study. When using online learning, educators report that they find it simpler to include references from the internet and other types of learning materials in their classes than when they use traditional classroom methods. Students have the view that it is easier to comprehend and remember knowledge when presented in an e-learning environment, the opinion that it is also simpler to carry out the tasks necessary to accomplish these goals (Lubis & Dasopang, 2021)

According to Fauzi (2022) blended learning has helped construct strong relationships between students and professors and among students themselves. This is true for the relationships between students and professors and the relationships between students. The contributions made by these interactions have assisted in the construction of a more robust learning environment. The contributions that these interactions have made have helped build a more resilient learning environment. there is a universal opinion that this style of education can boost students' learning processes in the present period The educational institution as a whole, as well as the students and teachers, are all the beneficiaries when a person who prioritizes education rises through the ranks of an organization and assumes a leadership position (Shi

et al., 2020). This is because the educational institution is better able to fulfill its mission. Numerous organizations are going to get a significant amount of assistance in the advancement of their missions from the processes that are supposed to be put into place, and these processes are going to be put into place. This assistance will come from the fact that these processes will be put into place. This support will be provided as a direct result of the fact that the procedures that are intended to be put into place will be put into place

The Negative Effects of E-Learning Technologies

The instructor shared that while the students can comprehend the content and use various additional materials, it is challenging to accomplish the necessary learning outcomes when utilizing an online platform. This is even though the students can understand the material. The lecturer underlined that the goals of the course go beyond simply ensuring that students comprehend the content being delivered to them. As a result, the following topics will be emphasized throughout the course. Utilizing the concept of Learning with a Hybrid has a lot of significant elements, but certain limitations need to be considered. These positives and negatives are listed below. The significant amount of preparation time necessary before implementing this method in the classroom is one of the drawbacks of doing so. It is essential for educators to be conversant in a variety of media technologies and to devote a significant amount of time to work on this strategy, mainly while it is being put into action (Guo & Wan, 2022)

The dual role that the technology of learning plays in instructional design and leadership comes with additional responsibilities and requires the development of new skill sets that may not be part of the curriculum for the technology course, as well as new knowledge areas that are not typically related to teaching and learning technology (Wajidi *et al.*, 2020). This is because the dual role that the technology of learning plays in instructional design and leadership comes with additional responsibilities and requires the development of new skill sets. Additionally, it was mentioned that the dual function that the technology of learning plays in instructional design and leadership comes with additional responsibilities and necessitates the development of new knowledge domains. It was also mentioned that the dual function that the technology of learning plays in instructional design and leadership comes with additional responsibilities and requires the development of new skill sets that may not be a part of the curriculum for the respective fields. This is because the technology of learning plays a dual role in both of these areas (administrative in higher education, educational theory, and educational policy). If the individual is adequately prepared, they have the potential to have a significant impact on how educational settings are altered as a direct result of the use of technology; however, this only holds if they are adequately prepared must be ready to assume a leadership position, should the necessity arise.

Even though they received training that prepared them with the core capabilities, still need to keep their skills, particularly those linked to management and leadership, current to be competitive for open opportunities. Because of the continuous evolution in both the professional world and at educational establishments of higher learning, it is essential to maintain one's current abilities while simultaneously making an effort to acquire new ones. A dual purpose is required from learning technology in order for the instructional design process to proceed (Indrayana & Sadikin, 2020). They are needed to learn new skills and take on more responsibilities when they take on a leadership post. These responsibilities and skills may be outside of a standard technology curriculum. They also need training in subject areas such as administrative work in higher education, educational theory, and educational practice, all of which are commonly related to the teaching that takes place inside of the classroom and the use of educational technology (Wagiran *et al.*, 2022)

CONCLUSION

When traditional classrooms are combined with online learning settings, students and teachers can effectively improve their capabilities in technological, informational, and interpersonal communication, and the process can also be more cost-effective. Traditional classrooms can be combined with online learning settings. Our attention has been drawn to the information discussed earlier in this conversation. This conclusion is in agreement with the findings of (Wagiran *et al.*, 2022) who believe that it is essential to do so in order to achieve success in online learning outcomes. This conclusion follows the findings of this study are consistent with this conclusion (Ruparel *et al.*, 2020). This discovery is in line with the findings discovered in earlier investigations. The results of this investigation are consistent with the conclusions obtained from other studies. If teachers have access to the internet, they may use an e-learning platform that is made available through online learning better assist their students' educational pursuits. Online learning makes this platform available. Assuming that the teachers in question have access to the internet on their own devices.

As a consequence, teachers can carry on a dialogue with their students nearly anywhere on the planet. The fact that students can access these platforms from any location provided that they have a computer and an internet connection makes the option to participate in online learning a simple one to make that provides a great degree of flexibility that can be utilised to its fullest potential. In addition, students can access these platforms from any location provided they have a computer and an internet connection and decide to participate in online learning. Online learning makes it easier for teachers and students to recognise references to learning, which can assist students in remembering the information offered in instructional materials. This makes it easier for students to retain the information they have been taught. The creation of educational materials can also be

facilitated through the use of online learning. This is a result of the fact that educators find it much simpler to locate references to learning when using online learning. When using an online learning platform, it is far easier for teachers and students to find relevant references to learning. This makes the use of an online learning platform quite advantageous. E-learning platforms, which are utilised in online education, require either a connection to the internet or a network to provide access to and enable the functioning of the e-learning platforms. E-learning platforms, which are utilised in online education, necessitate either a connection to the internet or a network. When utilising this strategy, both teachers and students face challenges in maintaining momentum toward learning goals; when utilising this strategy, E-Learning systems, which are utilised in online education, require either an internet connection or a network (V.Rasih, 2014). Teachers and students need help maintaining momentum toward learning goals when utilising this strategy.

When employing this technique, some obstacles arise for teachers and students in sustaining momentum toward their learning goals. E-learning platforms, which are utilised in online education, present a barrier as a consequence of the situation that has formed as a result of the case because one must be linked to a network or the internet in order to access these platforms (Jeong & So, 2020). Nevertheless, students and teachers in remote places encounter challenges as a result of interruptions in their capability to access the internet through a range of network connections. Because of these disturbances, it may be difficult for them to finish their coursework. All parties concerned will face many challenges as a direct result of this, and they will need to overcome these challenges. When it comes to embracing online learning through the E-Learning platform, the ever-increasing cost of meeting internet quotas creates a barrier that presents itself to both the instructors presenting the class and the students taking the class. This presents a once-in-a-lifetime opportunity for learning to take place through the internet.

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