Pros and Cons of Digital Learning

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ABSTRACT

Background. Education in the 21st century has entered the era of the industrial revolution 4.0 so it is required to continue to innovate to digital. The use of digital media in learning does bring benefits, but there are also many problems that arise in addition to these advantages, these problems include changes in low student motivation to be active in learning, decreased interaction between educators and students, saturation in learning and not infrequently academic stress.

Purpose. The purpose of this research is to find out the pros and cons of all-digital learning.

Method. The method used in this study is a quantitative method, data is obtained through the distribution of questionnaires using google forms.

Results. The results of this study show that many students are pro with all-digital learning, but there are also students who are against all-digital learning. This is because some students experience obstacles when doing all-digital learning. This can be seen from students' responses to all-digital learning.

Conclusion. The conclusion of this study is important to examine more deeply the pros and cons of digital media-based learning in students.

KEYWORDS

Cons, Digital Learning, Pros.

INTRODUCTION

In 2019 a new outbreak called Corona Virus Disease 2019 (COVID19) has hit the world. This virus is said to have originated in the city of Wuhan, China. The COVID-19 virus spreads very quickly and almost all countries are exposed to the Covid-19 virus, including Indonesia which has a positive case that occurred in early March 2020 (et al., 2022). The Covid-19 pandemic has had a huge impact (Kurniasih & Cendriono, 2021) on the world of education around the world. The Ministry of Education and Culture (Kemendikbud) approved the policy as a guideline for handling this disease at the education unit level. This change is a challenge for teachers and students in conveying and understanding learning materials. The current educational situation both in Indonesia and around the world is in a transition period (Analysis & Religion, 2022) to adapt to new conditions.

Online learning is internet-based learning that is supported electronically for teachers, student interaction, and delivery of learning materials.

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The rapid development of technology has facilitated distance learning (Julianto, 2023). The terms e-learning, or blended learning, all have something in common, namely using a computer network that provides the ability to learn anywhere, anytime and for any purpose. Teaching and learning activities are communicative activities that can motivate students and teachers to achieve achievable goals based on different perspectives, such as attitudes, knowledge and skills that can demonstrate the ability to understand the material during learning. Of course, learning cannot happen without the participation of teachers. An important role of teachers is the ability to properly connect learning activities, while students actively participate in the learning process.

Regarding digital media-based learning, the cooperation of teachers and parents is indispensable in the learning process (Isrofah et al., 2022). Information related to digital media technology shows that the use of digital media in early childhood learning is indeed beneficial, but in addition to these benefits, many problems arise such as changes in behavior patterns and habits in children. Digital learning materials in the form of digital dictionaries are alternative learning facilities that can be used. The use of digital media can be an innovative learning strategy in today's digital world. Digital dictionaries are one of the learning products that can be provided by teachers by utilizing digital technology (Azmi Alwi, 2023). Digital dictionary applications generate a variety of information that can be useful for successful and efficient translation of words or sentences . The school supplies needed are laptops, projectors and an adequate internet network that also supports the selection of digital dictionary media.

Education plays an important role in creating people who can make a difference by generating ideas in learning (Huda et al., 2023). Information technology is the development of information systems that combine information technology with communication. Global demands demand that the world of education always adapts to technological developments, strives to improve the quality of education, especially by adjusting its use in the world of education, especially in learning, building hardware infrastructure, internet networks and other practices (Utami & Dewi, 2020). High-quality education (Nurmilawati et al., 2021) requires high-quality and available teaching aids. Before the era of the industrial revolution, teaching aids were dominated by physical objects such as textbooks, printed modules and LKS, where the method of distributing teachers to students based on photocopies was expensive and time-consuming.

The essence of the development of science and technology is one way to improve and improve the quality of people's lives, one of which is through digitalization events (Indra Adi Budiman1, Yuyun Dwi Haryanti2, 2021). Therefore, teachers must be IT literate. Teachers must be able to use mobile phones or laptops as teaching tools, for example using YouTube to make educational videos and using Google Classroom, Google Meet or Zoom in the teaching process (Martini et al., 2022). But in reality, there is an imbalance between hope and reality (Rahayuningsih & Muhtar, 2022). In the implementation of the 2013 curriculum, each subject contains three competencies, namely knowledge, attitude and skills. It is not easy when learning is not done face-to-face. There are many obstacles in the implementation of the 2013 curriculum. The cause is less effective and less effective learning, one of which is the lack of infrastructure to support online learning itself. Therefore, the implementation of the 2013 curriculum e-learning is still not fulfilled.

During the Covid 19 emergency, learning was carried out at home through online/distance learning so that students could have a meaningful learning experience. Although e-learning policymaking initially brought benefits and disadvantages in society, it seems to be the best option today (Winarti et al., 2022). Covid-19 is a terrible pandemic that has attacked the whole world

since the end of 2019 until now. At least 188 countries have been affected, with a total of 2.38 million positive cases, 1.97 million recoveries, and up to 62,908 deaths as of July 7, 2021 (Udhmah et al., 2022). Coronavirus Disease 2019, or Covid-19, first appeared in the Chinese city of Wuhan. The spread of this virus is so massive that it easily infects people of all ages and has even mutated into more than 6,600 variants of the ten most dangerous virus mutations. This pandemic has had a major impact on various sectors, one of which is education. Digital literacy (Fitriani et al., 2022) is also a type of literacy that responds to the demands of change or transformation of the learning process in the world of education.

In the last two or three years, there has been a trend that the industrial revolution has reached a new chapter called the 4.0 era (Hartanto et al., 2022).Reports of Covid-19 cases (Rustam, 2022) in Indonesia began to appear after the President of the Republic of Indonesia announced the first case on the 3rd of March 2020. Online learning uses Google Classroom, Google Met, You Tube, WA and other applications. Educational technology continues to develop and is undergoing constant changes (Saidi et al., 2022). The use of smartphones is increasing from year to year (Innovation et al., 2022). The development of digital learning materials must also be accessible offline in small volumes and open in various media (Nurlaelah et al., 2023). Books are one of the learning materials that become a reference in learning (Hendrawan & Marlina, 2022). Various innovations based on digitalization technology are beginning to emerge, one of which is e-books as an innovation in learning media (Afifah & Mulyani, 2022). Therefore , innovation is essentially a great idea (Surbakti et al., 2022) that creates new things.

Digital innovation in the industrial world is very well known in the community (Quispe, 2023). Given the importance of the role of education (Yati, 2022) in the midst of changes that occur in human civilization, education must also adapt through planned educational innovations. The era of the industrial revolution 4.0 is an era where information technology develops rapidly and colors everyone's life (Wahyuni et al., 2022). The problems of teachers (Eriyanti et al., 2022) in these schools are related to efforts to further develop critical and creative skills in weak students. The media plays an important role in the world of education, especially in the implementation of learning (Laily et al., 2022). Improving the quality of education in Indonesia is very important and main for Indonesia (Priambodo et al., 2022). The learning process requires media that supports the implementation and achievement of goals (Maisarah et al., 2022). Along with the development of the times (Heryani et al., 2022) science and technology have also undergone development.

A study by Khoirul Anwar (2020) entitled Research on the Utilization of Digital Technology to Support Online Education Services found problems in the learning process. When students are less aware of the learning process because teachers are less creative in presenting learning materials. As a result, students do not actively participate in learning, the teaching and learning process seems boring, and students find it difficult to understand the material presented. Therefore, teaching and learning activities must be changed or updated. One of them is the creativity of teachers in creating teaching materials and providing teaching materials to attract students' attention and achieve maximum learning outcomes and involve students in the teaching and learning process.

The study also examines how students are distracted while learning and teachers' creativity in creating engaging classroom materials Therefore, technology must be used in the classroom that can help teachers and students increase motivation and enthusiasm for learning. Therefore, learning requires the creativity of teachers, both in the creation of teaching materials and in the transfer of what has been learned, which can improve the teaching and learning process. So in this case, students need guidance and direction from teachers in using digital technology to support learning.

Thus learning does not become boring and students learn actively and increase student creativity by following the learning process, so that learning goals can be easily achieved. A study by Khoirul Anwar (2020) entitled Research on the Utilization of Digital Technology to Support Online Education Services found problems in the learning process. When students are less aware of the learning process because teachers are less creative in presenting learning materials. As a result, students do not actively participate in learning, the teaching and learning process seems boring, and students find it difficult to understand the material presented.

Therefore, teaching and learning activities must be changed or updated. One of them is the creativity of teachers in creating teaching materials and providing teaching materials to attract students' attention and achieve maximum learning outcomes and involve students in the teaching and learning process. The study also examines how students are distracted while learning and teachers' creativity in creating engaging classroom materials. Therefore, technology must be used in the classroom that can help teachers and students increase motivation and enthusiasm for learning. Therefore, learning requires the creativity of teachers, both in the creation of teaching materials and in the transfer of what has been learned, which can improve the teaching and learning process. So in this case, students need guidance and direction from teachers in using technology to support learning. Thus learning does not become boring and students learn actively and increase student creativity by following the learning process, so that learning goals can be easily achieved.

RESEARCH METHODOLOGY

In this study, the research method used is quantitative. The quantitative method is an information search process that uses information in the form of numbers as an information analysis tool about what you want to know (Richard Oliver (in Zeithml., 2021)). This research is included in the quantitative type of correlation (Mirmoadi & Satwika, 2022) because it was carried out to determine the relationship between variables. This type of research is suitable for use because research often uses correlational studies. The application of problem-based learning can be a solution to stimulate HOTS (Simangunsong et al., 2023). In this study, the sampling technique is using the purposive sampling method. The instrument used was a questionnaire (Antika & Marpaung, 2023). This study is a descriptive research (Sitorus et al., 2023) analysis using primary and secondary data sources.
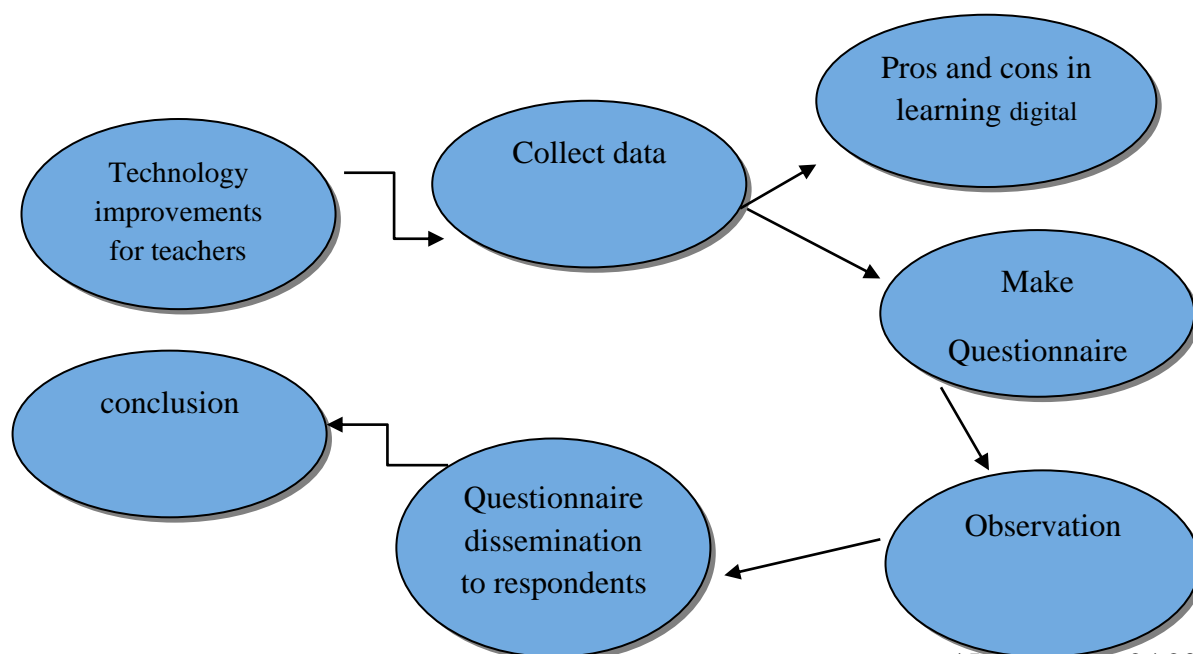
Figure 1. Research Steps

RESULT AND DISCUSSION

Teachers are the focus and hope of the nation to improve children's living standards. Teachers are also called heroes. This shows the readiness and sincerity of the teacher when he or she works, the teacher does not expect anything. Teachers can enjoy their assignments even if there are challenges in something, for example digital. The implementation of learning assessments through social media Kahoot.it and Facebook was made by providing Nationalism training materials through laptops, LCDs and speakers. The learning method is carried out by applying andragogi or teaching methods. Pedagogic competence is a management skill of coaches who are learning pedagogically, teachers' competence in learning management is important in receiving serious attention. Law No. 14 of 2015 says that competence is a set of skills, knowledge, and behaviors that can be acquired, which are possessed and entered by teachers or lecturers during the implementation of professional duties.

The character of a PAI teacher is an educator with special knowledge is very important. Because PAI teachers do not only convey learning, but they have a very important task, where their task is to instill the values of religious education for students. Related to efforts to improve PAI teachers, the pedagogic competence of an online learning teacher cannot be separated from training and practice. Training is often used as the first step, even a teacher who continues his profession is in dire need of special training and exercises related to learning. In education and training, the online learning process still uses various digital applications such as google classroom, whatsapp, teacher's room, etc. Based on research conducted by researchers in completing the online PAI learning process of digital programsFor example, Google Classroom, WhatsApp, and Teacher 's Room are obtained as a result of an overview of online learning digital programs such as Google Classroom, WhatsApps, and Teacher's Room in the same category.

No	Question	Strongly agree	Less agree	Disagreement	Strongly disagree
1	Learning in this all-digital era can improve cognitive abilities	13,2%	79,2%	7,5%	0%
2	Learning in this all-digital era can improve motor skills	34%	64,2%	0%	0%
3	Learning in this all-digital era curated socialization with others	7,5%	49,1%	0%	37,7%
4	Learning in this all-digital era makes there is a lack of interaction with the outside world	9,4%	41,5%	9,4%	39,6%
5	The lack of initiative to read is because in this all-digital era, everything that you are looking for is already on gadgets	90,6%	7,5%	0%	0%
6	The challenges of education in	11,3%	54,7%	11,3%	22,6%

	this all-digital era have been well faced				
7	The digital era is very important in the world of Education because it can support the learning process	81,1%	17%	0%	0%
8	Education that integrates information and communication technology is more effective and efficient	84,9%	13,2%	0%	0%
9	Education that integrates information and communication technology is less effective and efficient	28,3%	67,9%	0%	0%
10	Education in the digital era really requires the integration of ICT into the learning process	75,5%	20,8%	0%	0%
11	There are still many learning media that have not supported education in this digital era	83%	15,1%	0%	0%
12	Easy access to information about learning in this all-digital era	84,9%	11,3%	0%	0%
13	There are many negative activities carried out by students in this digital era compared to positive activities	71,7%	22,6%	5,7%	0%
14	The emergence of several communities in cyberspace that can add new relationships	86,8%	11,3%	0%	0%
15	Young in seeking information for students	90,6%	7,5%	0%	0%
16	Many new methods for learning have emerged, which can help students and students and teachers	94,3%	5,7%	0%	0%
17	There is still a lack of self-control in this all-digital education	88,7	9,4	0%	0%
18	The moral damage of students and students is due to the number of sites that should not be displayed but are seen by	92,5	3,25%	3,25%	0%

	students and students				
19	Too much freedom of association because this all-digital world can cover a very wide world, and greatly affect behavior for students and students	92,5%	5%	2,5%	0%
20	There is a lot of reduced direct friendship or even learning can be done only through gadgets	56,6%	41,5%	0%	0%

Table 1. Results of Questionnaire Distribution

In the table above, there are several questions about the pros and cons of an all-digital learning process. The development of technology cannot be separated in the teaching and learning process, because it has advantages that can improve the quality of teaching, as a tool that can help teachers and students to learn actively, avoid boredom of learning, and improve understanding of subject matter. facilitate, especially students This researcher tested 20 questions, including questions Learning in this digital era can improve cognitive abilities obtained a percentage of less agreeing as much as 79.2%, from the results of these percentages it can be concluded that digital technology plays less of a role or almost no role in children's cognitive development. This study also examines learning in this digital era that reduces socialization, obtaining a percentage of 49.1% and obtaining a percentage of 37.7%.

This study also examined the lack of initiative to read because the digital era obtained a percentage of 90.6 in the strongly agree category. The high percentage is because in finding information everything is available in this digital era. The statement stating that the challenges in this digital era have been faced well obtained a percentage of 54.7 in the disagree category, the high percentage in this category is because in facing the challenges in this digital era, in fact, it has not been faced well because there are still many negative impacts that have been caused by this digital learning. The statement stating that the digital era is very important in the world of education because it can support the learning process obtained a percentage of 81.7% in the strongly agree category, this is because the role of technology in learning is needed. The statement that education that integrates information and communication technology runs more effectively and efficiently obtained a percentage of 84.9%, the percentage of this statement is high in the strongly agree category because education that integrates technology is superior in delivering media in learning. The statement that there are still many learning media that have not supported education in this digital era obtained a percentage of 83% in the strongly agree category due to the lack of facilities or funds in efforts to provide media.

The statement stating that there are more negative activities carried out by students in this digital era than positive activities obtained a percentage of 71.7% in the strongly agree category. The statement that the emergence of several virtual communities can add many new relationships obtained a percentage of 86.8% in the strongly agree category. The statement that it is easy to find information for students obtained a percentage of 90.6% in the strongly agree category. The statement that many new methods for learning have emerged, which can help students and teachers in the learning process obtained a percentage of 94.3% in the strongly agree category. The statement that there is still a lack of self-control in today's all-digital education obtained a

percentage of 88.7% in the strongly agree category. The statement of moral damage to students and students because of the many sites that should not be displayed and seen by students and students obtained a percentage of 92.5% in the category strongly agreed. The statement of too free association because in this digital era it can cover a very wide world and greatly affects the behavior of students and students obtained a percentage of 92.5%. The statement that there is very little direct contact or even pbm has been done through gadgets obtained a percentage of 56.6% in the strongly agree category. The statement that integrating technology in the learning process results in less effective and efficient obtained 67.9% in the disagree category.
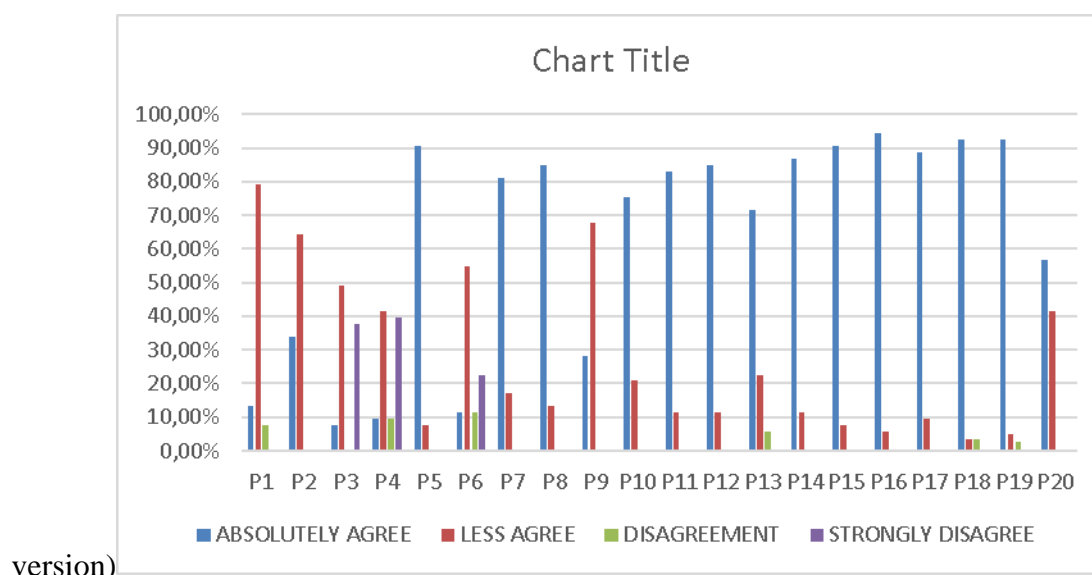

version)

Figure 2. Graph of pros and cons in Learning

The graph above is a graph of the pros and cons of all-digital learning. The graph above explains that the study used 20 questions about the pros and cons of all-digital learning. in the perspective of educational technology which aims to improve the teaching and learning process by utilizing technology in education, so that it will make it easier for teachers and students to achieve learning goals, the learning process can be carried out effectively and efficiently. Questions that get the highest percentage of strongly agree categories are 14 questions, namely 5,8,10,11,12,13,14,15,16,17,18,19,20. that is, the highest percentage result is 94.3. And the second highest was in questions 1,2,3,6,9,20 with a percentage of 52% in the strongly agree category. The next highest percentage result is the strongly agree category. So the highest data acquisition is in the strongly agree category and the lowest is in the strongly disagree category.

The result of this research is a STEM-based digital module for magnetic materials. A first step in this research is to analyze the needs of local teachers and students of digital modules. The results of a preliminary study conducted by researchers on students using the survey method showed that magnetic materials are difficult to access in solving difficulties related to magnetic materials. Based on the results of the preliminary study, students have difficulty in understanding and remembering formulas and materials and have difficulty in solving problems. Based on the evaluation results, it was found that students did not meet the minimum qualifications of students carried out every year with sufficient materials. This is due to the limited source of special study materials that require learning materials, one of which is a module. The magnetic material is difficult for students to understand, therefore teaching materials are needed in learning the concept.

The material provided by the implementation team is the concept of knowing without face-to-face learning through e-learning media. This section explains the advantages of online learning during the Covid-19 pandemic. Then using the Internet learning environment the learning is still ongoing. When the teacher explains the material the enforcement team sends the online learning instructor challenge information that is: the teacher must have the creativity to convey to the students and must know how to make the learning material interesting as easy as possible to understand. Important competencies that teachers must have are personal, pedagogic, social and professional. Personality competencies include emotional maturity, honesty and courage to make decisions. A teacher's pedagogical competence includes the ability to understand students, planning and conducting studies, evaluating learning outcomes and developing students' potential so that it becomes a reality.

The use of technological media is growing very rapidly, creating a new means of communication that gives its users the freedom to send, read and track available information. This ease of access to information has a huge impact when used wisely. Today, however, there is still information being distributed without responsibility for the accuracy of the information. Some social media users still do not understand the ethics of using the media. Especially in the millennial era, it is necessary to be informed to behave ethically in sorting, selecting and using social media effectively to prevent ethical violations in the world. Technological advances and developments in the era of revolution 4.0 extend to all aspects of education in playing an important role in the use of technological needs that are very important and cannot be fulfilled quickly.

The implementation of digitalization in schools is currently still being intensified in peripheral areas to expand connections that are inadequate in the availability of devices. By 2022, school digitization will be implemented in special economic zone areas, marine centers and areas and integrated fisheries of small and medium industries in tourist areas. The Ministry of Education and Culture is investing in school digitization through the creation of a digital school platform called Rumah Belajar. The Rumah Belajar platform application can be found in game stores to facilitate the application to teachers and students as school digitalization. Kemdikbud Study Center supports learning digital content for all students that can be used on Android, computers, tablets, and so on. The adaptation of university e-learning during the Covid-19 pandemic has negatively impacted student performance. In the process of migrating learning from a virtual learning system to an e-learning system, universities need to study the effectiveness of the implemented education system, facilitating effective teaching and learning.

A very different learning atmosphere can have an effect at school and at home in motivating and enthusiasm for learning in students. infrastructure such as devices and sufficient internet networks, time, process connections are able to promote learning, support more energy and enthusiasm for student understanding can lead to optimal achievement of things. Educational policies during the Covid-19 pandemic prioritize health and students, teachers, families and safety in the community. In general, attention to student development and psychosocial conditions fulfill school education services because there is flexibility in curriculum selection according to student learning needs during the pandemic. Early childhood digital media-based learning in the era of the industrial revolution already needs to be given an explanation of the introduction of educational media suitable for use in the era of the Industrial Revolution 4.0 in the midst of the COVID-19 pandemic. The application of mass media in early childhood provides digital learning which is very important for cooperation between teachers and parents in dealing with problems to be successful in learning.

The development of technology makes a significant contribution to the achievement of educational goals that can be understood quickly. The purpose of education is to form cultural intelligence and respected national figures in the development plan and education of people's lives. Therefore, the goal is to develop the potential of students with education that aims to make humans devoted and faithful to God Almighty. Everyone from anywhere urban or rural can be accessed thanks to the development of information technology-information obtained. A lot of information about addresses in various fields such as art, politics, religion, economics, culture, education, health and others that are expected to develop knowledge and other aspects learned to be applied in everyday life. In addition, we hope to develop a critical, independent, creative, disciplined and responsible attitude. The education and learning process in educational institutions is greatly helped by the development of information technology.

Descriptive analysis is presented in the form of tables, reports and graphs to see the distribution or tendency of the data collected when analyzing the relationship of variables using this square meaning test. Predict and suppress the number of people. Among other things, proposing policies that restrict activities from leaving home, school activities are stopped, working at home, and even religious services are suspended. This is already an aspect-based government policy that has of course been fully analyzed. The development of information technology in education has internal limitations in application. These limitations may be obstacles to achieving what educational goals exist. In the study, there were several obstacles in the past, namely technological developments and innovations in the world of education, especially human resources. As is known, the rule of reopening face-to-face classes continues to receive pro and con arguments. Many students want to return to campus with strict procedures, but some students and even parents still have concerns about health insurance.

CONCLUSION

In suburban areas, the implementation of school digitalization is currently gaining momentum to expand insufficient connections in terms of equipment availability. In 2022, school digitalization will be implemented in special economic zones, centers and integrated marine and fisheries areas for the SME industry in tourism areas. The platform application on home learning can be found on the play store to make it easier for teachers and students with school digitization applications. The Ministry of Education and Culture Learning Center supports all students to learn digital content that can be used on Android, computers, tablets and so on. The adaptation of online learning in higher education during the Covid-19 pandemic has had a negative impact on student performance. When transferring learning from a virtual learning system to an online learning system, universities must examine the effectiveness of the educational system implemented, facilitating effective teaching and learning.

In general, in providing educational services, schools pay attention to the development and psychosocial conditions of students, because during the pandemic there is flexibility in choosing a curriculum   that suits the learning needs of students.. Digital media-based early childhood education in the era of the industrial revolution already requires clarity on the adoption of educational media that is suitable for use in the era of the industrial revolution 4.0 in the midst of the COVID-19 pandemic. The application of mass media in early childhood provides digital learning, which is very important for the cooperation of teachers and parents in facing problems to achieve academic success. Discussion is an important part of the application of learning media in the digital era.

AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

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