The Transformation Of Learning During Covid-19 Pandemic Towards The New Normal Era

Ahmad Hatip[1]

[1]Dr. Soetomo University, Semolowaru 84, Surabaya, 60119, Indonesia

ahmad.hatip@unitomo.ac.id

Abstract. The purpose of this literature review is to describe the transformation in learning that occurred during the Covid-19 pandemic. The planned learning transformation process includes the transformation of the use of learning technology and learning media in distance learning, transformation of learning designs, transformation of learning models and transformation of learning assessments so that learning remains effective and efficient. In the transformation process, there are several learning problems, including: teacher and student competencies to use technology are still weak and learning facilities and the internet are not evenly distributed. The good impact of the Covid-19 pandemic is the ability of educators and students to grow well. Educators and students are "forced" to teach and learn using available learning technologies and platforms. Parents participate in children's home orientation in the areas of financial and emotional support, monitoring studies, advice and material support. In addition, this learning transformation can still continue to welcome a new normal era filled with virtual technology. Blended learning and distance learning will be a necessity to meet the future of education.

Keywords: transformation of learning, covid-19 pandemic, new normal

1. Introduction

The world is in mourning. Corona virus outbreaks have attacked every country in the world, including Indonesia. This pandemic affects various important sectors in a country's travel. Sectors affected by this epidemic are the economic, social, legal, and educational world. The impact of a Covid-19 pandemic is estimated to be very significant, especially in the economic sector. Each country feels difficult to get out of the problem of economic slowdown. The effects and restrictions on large-scale foreclosures cover many segments of the national economy, from small to large. The results of the study [1] show that there is a tendency for a significant correlation between the 19th case and the dollar exchange rate against rupees. If business continues to grow, it will further weaken the Indonesian economy. In addition to the economic aspect, another important sector which is the center of attention of countries in the world is the process of learning during the Covid-19 pandemic. Learning routines that take place every day at school for a long time and become a gathering place for the masses are the main concern in Covid-19 pandemic transmission. Important decisions made by various countries, including Indonesia, regarding the course of education during the pandemic of learning from home. Therefore learning takes place from afar. This decision was made as part of the country's main decision to stay at home, work from home and pray at home.

Learning at home has the effect of forcing rapid learning transformations to overcome learning gaps. During the Covid-19 pandemic, learning must continue even at home. As a result, the Ministry of Education and Culture issued a policy by issuing circular number 4 of 2020 concerning the implementation of education policy in the emergency period of the deployment of co-19. Some important points replace the learning process using an online system. With this circular, the teacher / professor and students / students will be able to adapt quickly to the current conditions. This condition is the starting point for the transformation of learning in Indonesia. The word transformation comes from the Latin "transformare" which means to change forms. Etymologically, this is a change in structure or form. Transformation is the process of transfer from one period to the next which occurs due to procedural or structural innovation, planned or unplanned [2]. The transformation process in [2] includes: changes that occur slowly or gradually,

unpredictable at the beginning and at the end, complete and ongoing, and are closely related to the existing value system in society.

In education, transformation is focused on changing the rules of the game in terms of aspects, practices, and educational institutions that are responsible for transmitting knowledge. The transformation referred to in this study is a paradigm shift from face-to-face learning to distance learning using virtual or virtual face-to-face learning. The process of change will certainly affect changes in the subsystems that exist in the learning learned in this literature review. Desired changes are changes that lead to the achievement of effective and efficient learning goals. [3] states that learning objectives are a major factor in the learning process. Clear objectives will provide a guarantee of legality and will determine where learning will take place. To achieve the learning objectives, the educators and students must be able to adapt immediately to environmental conditions so that the learning transformation process can take place properly. Covid-19 pandemic is a period where direct transformation of learning may need to be carried out so that learning can continue to achieve the desired goals. The co-19 pandemic has brought many changes to the implementation of learning throughout the world, especially in Indonesia. [4] states that there are several things caused by covid-19 in the world of education, namely: the process of education and learning in the world that are interconnected quickly, redefining the status of educators, the importance of life skills that must be possessed by all for the future, the use of technology is increasingly having a real impact on the learning process. [5] explained that the co-19 pandemic has brought fundamental changes in the world of education, namely the transformation of one's way of education, the emergence of new solutions that lead to educational innovation, digital divide can lead to new changes in the use of educational approaches.

As stated by [4] and [5] the co-19 pandemic provides instructions for accelerating the transformation of learning even if forced. Even though the transformation must be gradual, with a co-19 pandemic, the transformation process must definitely be carried out. In a short time, all education in the world affected by the epidemic has changed from face to face to distance education using virtual learning technology. Answering the problems as above, the author wants to provide a formula or a kind of prescription in transforming learning during the Covid-19 pandemic. This paper will discuss the transformation of learning which includes transformation of technology and learning media, transformation of learning design, transformation of learning models, and transformation of assessment during the process and assessment results during the Covid -19 pandemic. In addition, it will also discuss learning constraints during the transformation process and the impact on both educators and students in implementing learning towards new normal habits.

2. Method

This research uses the type of literature study research by finding theoretical references that are relevant to current problems in the world, especially in Indonesia. The data obtained are secondary data based on the results of research and previous studies that are treated and analyzed in accordance with the problem of this literature study. References obtained from this literature review include: 1) technology and virtual learning media, 2) designing online learning models, 3) online learning models, 4) 1 evaluation of processes and online learning outcomes, 4) online learning constraints, and 5) conditions study in a new normal era. The results of this literature review can be used as a strong basis and a main tool for further research in the field.

3. Results and Discussion

According to [2], transformation is a change to something new. Transformation is seen as a process of transition from one form to a new form. In the field of education, transformation in the form of changes in the rules of the game in various aspects, practices and educational institutions that are responsible and transmit science and art. In terms of learning, transformation is focused on a renewed vision. Teaching and learning are carried out effectively if they are meaningful, inclusive, successful in values, challenging and active.

The learning transformation achieved during the Covid-19 pandemic period is a change in various aspects, including the transformation of the use of technology and learning media, design and learning models, as well as an assessment of the learning process and outcomes.

A. Technology Transformation And Learning Media

UNICEF, WHO and IFRC in COVID-19 Prevention and control in schools (March 2020) say that as the virus spreads faster, schools must be closed and the education process must continue. takes place through online learning activities using various media. UNESCO data (2020) show 1.5 billion students and 63 million teachers from elementary to high school in 191 countries affected by the Covid-19 pandemic, which is unprecedented. The education world then "forced" itself to change the way of learning based on face-to-face meetings in online learning. This forced digital transformation is the surest way to stop the spread of the epidemic caused by the corona virus. Therefore, the right of students to education remains a priority without neglecting mental health and safety.

Educators must ensure that teaching and learning activities continue, even if students are at home. The solution, educators are required to think of learning media as an innovation using online media. This is in accordance with the Minister of Education and Culture of the Republic of Indonesia concerning circular no. 4 of 2020 concerning the implementation of educational policies during the emergency period of the spread of Corona virus (Covid-19). Under these circumstances, a learning transformation takes place. Initially learning that is often monopolized face to face directly in the classroom by relying on blackboards, LCD screens and projectors was changed into a learning system using personal computing devices (PCs) or portable computers that are connected to an internet network connection and produced with learning, distance learning or learning virtual. The results of previous studies related to online learning are with [6] showing that the average independence and interest in student learning in the experimental group using e-learning is higher than the control group not using e-learning. Furthermore, according to the results of research [7], it is said that the preparation of an online learning system, the support of teachers and also classmates in the process of teaching and learning activities. learning by providing feedback on forums and quizzes inspires students to become active in using Moodle-based online learning. The study of the use of distance learning in learning was conducted by [8] which states that virtual learning in distance education can provide an interesting presentation of learning material so students are motivated to learn. But on the other hand, virtual learning in the distance learning process has the disadvantage of the high costs involved, network delays. Therefore, virtual learning applications in distance education must be adjusted to the user's ability. In addition, research related to distance education is carried out by [9] shows that there are differences in students' motivation and interest in learning before and after implementing distance education with Google courses. Based on the results of previous studies, it can be used as a provision where the use of online learning and virtual distance learning can increase student motivation and interest, especially in the current pandemic conditions.

In using online or distance learning, educators can learn together at the same time using a variety of platforms to choose from, such as social media groups such as WhatsApp (WA), telegram, instagram, zoom applications or other media as learning media. The simplest thing a teacher can do is to use WhatsApp Group. The WhatsApp application is suitable for beginner online teachers, because this operation is very simple and easily accessed by students. As for online teachers who are more enthusiastic, they can improve their skills by using various online learning applications. So educators can make sure students learn at the same time, even in different places. Educators can also provide measurable assignments according to the purpose of the material given to students. Some research findings from the use of educational material are the results of research [10] showing that Edmodo online learning is based on students' interest in learning, student learning independence and student learning outcomes. It was also found that there was a positive correlation between interest in learning outcomes in edmodo-based online learning and learning independence from learning outcomes in learning. online based on edmodo. Further research using Whatsapp groups as learning aids was carried out by [11], which stated that the results showed that the use of Whatsapp Messenger as an integrated learning method of group investigation was effective to be applied in the learning process to improve students' critical. thinking ability.

Need to be reminded again, select the application that suits the needs of the teacher and students themselves. Not all e-learning applications can be used like this, but must be taken

into account with the needs of teachers and students, hardware compliance, limitations of device infrastructure such as networks. Very ineffective if the teacher uses the zoom meeting application but the network or signal in the student area is not good. Or, for example, an elementary school teacher giving homework to students by giving coloring video tutorials through WhatsApp will be more easily done and accessed by students to be effective.

B. Transforming Learning Designs

Distance learning needs to be designed carefully so as to facilitate optimal student learning. Many teaching design principles are available in the literature to do this. In this article we will offer the principle of 'teaching as interaction' as a framework for designing distance learning. Why this principle? This principle recognizes that teaching involves a complex process between learning actors. Learning actors depend on each other. Furthermore, this principle can provide an overview of the interactions between learning agents that occur in distance learning. Finally, this principle also provides opportunities for modern learning approaches that require interaction between students in an online learning environment, for example computer-supported collaborative learning (CSCL). According to [12] states that collaborative learning is a general term for various educational approaches that involve intellectual efforts by students or students and teachers simultaneously. There are 6 (six phases passed in collaborative learning [12] namely 1) assessing collaborative abilities; 2) creating various abilities; 3) Practicing collaborative learning; 4) Capture and disseminate learning; 5) creating value; and 6) Increasing interdependence (mutual need). During this pandemic, collaborative learning uses computer aids. Students can continue to collaborate with the help of computer technology that is connected to each other. Therefore, to design effective distance learning, it is necessary to think about and design various strategies to facilitate interaction between educators and learning content, students with learning content, students with educators, and students with other students.

C. Transforming Learning Models

After educators are able to master a variety of online learning tools, this will create reflections on more diverse learning methods and models that have never been developed by educators. For example, the teacher creates creative video content as educational material. In this case, the teacher is more persuasive because it makes students more interested in the material provided by the teacher through creative videos. Students will certainly be able to understand what is explained by the teacher through creative videos created by the teacher. So by applying the learning model at home, students do not feel bored participating in online learning. The use of technology in students 'homework performance can also lead to students' creativity in developing the knowledge they already have. With a variety of teacher learning methods, they can create creative learning products that can develop thinking through their own analysis, without leaving the subjects delivered by the teacher. While e-learning will provide greater opportunities to explore the material to be taught, teachers must be able to choose and limit the various materials and applications that are suitable for the learning materials and methods used.

Project-based learning is a learning model that can be achieved during the Covid-19 pandemic. Project-based learning according to Mansoor and Moss in [13] argue that project-based learning is a collaborative approach to learning and teaching that places students in situations where they use authentic language to achieve certain goals. As part of the process, students plan projects, work on complex assignments, and assess their performance and progress. A project is designed around problems, questions, or needs identified by students.

Figure 1, Project Based Learning

In Figure 1, the implementation of project-based learning cannot be fully realized in online learning. Learning in the future Covid 19 certainly requires adjustments in the implementation of project-based learning, due to the application of the Minister of Education and Culture No. 4 of 2020 makes teachers and students can not meet directly to lead the learning process. Project-based learning is generally done in groups or in collaboration with students, but during a pandemic, collaboration can be established between students and parents to involve teachers, students and parents. The implementation of project-based learning during the Covid 19 pandemic was achieved by choosing the right media because learning was not done face-to-face but was carried out using distance learning methods. Implementation of learning at home namely distance learning emphasizes the concept of learning by using means that allow interaction between teachers and students, not creating new costs because the learning conditions that occur are not normal conditions.

The fact that this happens, many teachers are too arrogant applications that are considered contemporary and cool, but this is not in line with the original purpose of online learning which is to facilitate student learning or education in this pandemic situation co-19. Instead of helping to alleviate psychological burdens, this puts students under pressure, coupled with a large amount of homework that is not measured by their teacher. Thus, the success of teachers in directing online learning in a Covid-19 pandemic situation is their ability to be creative in the design and collection of learning materials, methods and applications that are appropriate to the tools and methods. Creativity is the key to the teacher's success in motivating students to stay enthusiastic in learning online and not become a psychological burden. Making learning fun, meaningful, creative, critical and able to make students independent is certainly not an easy task. In addition, the teacher cannot face to face with students. The teacher's foresight in developing designs and methods that are able to attract students so that they continue to be eager to learn become extraordinary. If only giving students the burden of homework makes them bored.

D. Transforming the Assessment Process and Learning Outcomes

The assessment process during a pandemic must also be changed. Assessment does not always have to be like in a face-to-face class. Evaluation can be done with a variety of independent tasks or in collaboration using computer media. The educators must understand the condition of students then and now. Evaluation can develop at any time depending on the material and objectives to be achieved. Assessments are made not to be directly involved in practice on the ground because of the pandemic situation. At the analysis level, evaluation can use virtual subjects or objects that can be accessed via the Internet and can be directly achieved according to instructions. The main purpose of assessment is the assessment of student performance processes independently or collaboratively based on car or computer learning. According to [12] Collaborative learning based on mobile offers various advantages such as the context of independent learning, portability, connectivity, and social interaction. With this system, students are expected to have a strong motivation to explore their abilities and share and work

together with students and other teachers to achieve shared learning goals. Examples of evaluation of learning processes and outcomes when the model chosen is project-based learning is authentic evaluation that prioritizes process evaluation but does not neglect final evaluation. Authentic assessment conducted is portfolio assessment. The portfolio according to Slavin in [14] is a collection of student work that has been systematically organized in an organized manner as a result of the learning effort that he has made in a certain period of time. The results of the study [15] showed that the application of the project-based learning model assisted by portfolio evaluation had an effect on the scientific culture of fifth grade students of SD IV Cluster Sawan District.

Project-based assessment is carried out from planning, work processes, to the final results of the project. For this reason, educators must determine the things or steps that need to be assessed, such as preparing designs, collecting data, analyzing data, and preparing written reports. Task reports or research results can also be presented in the form of posters. Implementation of assessment can use assessment tools / instruments in the form of checklists or rating scales. During this assessment the teacher uses appropriate media to provide rubrics, receive reports, or provide student counseling. Examples: assessment rubrics or questionnaires to complete student assignments using Google forms, monitor communications and project work consulting services using what is an application or video conferencing group, document student activities via email, organize lessons using virtual classes, Google or Edmodo classes, complete work home or report students using google slides or google sites or using bird documents. Additionally, all student results are collected in student purses stored in the player or in cloud content using Google Drive, Lark Suite Drive or other unpaid cloud storage. All media choices take into account the conditions and technological capabilities of teachers, students and parents.

Constraints On The Implementation Of Online Learning

A. Competence of Educators and Students

The current pandemic situation is indeed very influential for education in Indonesia. With an online learning system it is indeed not efficient enough to do this. This happens because the competence of teachers and students is not ready in part to face the changes. Lecturers / senior teachers still experience limitations in the use of technology. Indeed, inevitably the implementation of learning must be done online or remotely. The use of technology as the main learning tool is the most important factor after learning itself. [16] mentioned that it is not easy to take distance learning courses with students. Although this learning is easier to do for students who are already adults. In addition, this learning must be supported by class conceptions and appropriate delivery methods so that online learning can encourage students to reflect on their beliefs; provide a safe environment for discussing various perspectives; guide them to explore, validate and expand new perspectives; and help them develop new roles.

The availability of teachers and students to use learning technology, especially at the secondary school level, is relatively good and continues to improve in quality. However, online learning content still needs to be refined to be more interactive so students can be more involved in the learning process. The capacity of technology support also needs to be improved, as does the facilities used by content providers. The lack of teacher and school administration preparation and the lack of consultation due to the limited preparation time provided, making the learning policy at home raises criticism / complaints from some parents of students. Some people complain about studying at home, as an activity to move class activities from school to home with more burden / homework. In addition, some schools also continue to carry out assessment activities in the interests of grades in the lower classes. Students in the final class are always overshadowed by the final exam. The final exam may be postponed and not interrupted. Students face a lot of anxiety; Final Covid-19 school assignment / exam.

B. Learning and Internet Facilities

The Ministry of Education and Culture has facilitated a home study program with a virtual face-to-face approach. Students can access learning media in the form of video, audio, text, and

practice independently. The application has been provided by the Ministry of Education and Culture and digital platform partners. But the use of technology in the field of education is currently more widely applied in cities and regions that have been reached by the Internet. The government is considered to have to do technological equalization to disadvantaged, frontier and outermost regions because not all people have access to electricity, especially the internet. So that many students are hampered to carry out learning activities from home. The results of research by [17] states that there is a significant influence of the use of the internet as a learning resource on learning motivation. Based on the description it can be seen that the most students use the internet as a source of learning in both categories (50.00%), while learning motivation in both categories is (63.89%). In this case it can be concluded that the higher the use of the internet as a source of learning, the higher the student's motivation to learn. Based on these results it can be explained that during the Covid-19 pandemic like this, when distance learning was implemented, the need for the internet was important. Without the internet, the use of learning platforms cannot work. This limitation is what is happening in Indonesia. Internet needs are still not evenly distributed. Rural areas are still not affordable. In addition to internet facilities, learning facilities also affect learning outcomes. Research conducted by [18] states there is a significant influence between learning facilities and learning motivation partially and simultaneously on the learning achievement of economic subjects. This indicates that learning facilities play an important role in implementing learning. Even more so in the pandemic condition Covid-19. Learning facilities such as laptops, handphone, and other facilities are needed in online and distance learning. During the Covid-19 pandemic, online learning must be a comprehensive evaluation for all lines of education. This is an important note for us in the future so that we can face the teaching and learning process when there is or no Covid-19 pandemic. Good, covering infrastructure, school buildings, to the availability of technology.

The Impact of Covid-19 Pandemic in Learning
A. Competence of Educators and Students
    The impact that has been received as a result of this co-pandemic has forced teachers and students to renew themselves to use better technology, to think creatively in creating learning models that are easily understood and understood. work well, without being overloaded. Pandemic has motivated teachers and students to learn and be creative using technology. The use of technology and information generated in online learning as a provision for students to work and create new jobs using online media. For teachers, the use of technology will develop teacher or teacher skills in learning, research and community service, which has recently used a lot of digital and online technology. The results of the study [19] showed that teacher competence had the greatest influence on the performance of the department / study program at Diponegoro University. This means that teachers who have good technology and information skills will be able to lead higher education well so that they can support teachers in the development of study programs.

B. Parental Involvement in Learning
    The existence of a co-19 pandemic also provides another lesson. Homemade learning can make it easier for parents to directly monitor or supervise the development of children's learning. Parents more easily guide and supervise children's learning at home. This will lead to more intensive communication and will lead to closer relations between children and parents. Parents can give direct advice to children about learning material that is not yet understood by children. The results of research conducted by [20] indicate that there are five forms of parental involvement in education, namely: financial support, emotional support, follow-up studies, advice from members and material support. While the five benefits felt by students from parent involvement are: the spirit of college, self-assessment increases, can continue to learn, help in terms of courses and help materially and financially. During the Pando-19 pandemic, the role of parents was very important in terms of financial, material, emotional support or educational guidance. In online learning activities offered by teachers, parents can monitor the extent of their children's skills and abilities. Then, the unclear material provided by the teacher or teacher

makes communication between parents and children more established. Parents can help children's material difficulties. The next wisdom is the use of media such as handphone or gadgets, which can be controlled for children's learning needs. The role of parents is increasingly needed in controlling the use of gadgets. This has a positive impact on children, using technology for useful things. Children tend to use cell phones to access various learning resources from homework provided by the teacher. So that children avoid using gadgets on things that are less useful or negative.

The involvement of parents is very important for the success of online learning. A dilemma situation then occurs when parents are unable to attend the children's assistance because they still have to work. These are people who don't have the luxury of working from home. Health workers, informal workers, factory workers, herders, fishermen and farmers, for example, must continue to work. Even though they don't have other people who can help the child. Parents who can work from home but still prefer office work cannot help children learn optimally. Especially for children at an early age is certainly the case. If both parents work and they do not have domestic helpers, for example, they must be able to divide roles to look after children. If it cannot be treated wisely, again, mental health problems become a part that must be anticipated.

C. Online Learning In New Normal
Although education in Indonesia has been influenced duringCovid-19 pandemic, behind all this there are lessons and lessons to be learned. Government policies to provide distance education online can offer benefits, such as raising awareness to take advantage of current technological advances and addressing the problems of the education process in Indonesia. In addition, teachers will be familiar with the use of technology, distance or online education, and will use learning models that are adapted to various situations. This habit will continue to face a new normal life that requires everyone to be able to directly adapt to different conditions. Under new normal conditions, blended learning and distance learning must remain at the forefront of learning. Covid-19 pandemic, which is still unknown when it finally means that learning cannot occur directly. In this case, blended learning and distance learning play a role in learning. According to [21] Blended learning, it is generally understood as a learning process that combines face-to-face learning and online learning. According to [22], fundamentally, the existence of blended learning is a response to the existence of technological progress in line with traditional best learning practices. He said blended learning was an opportunity for efforts to integrate progress in innovation and technology offered online with the interaction and participation offered in traditional learning. Furthermore, according to [23], in blended learning means a combination of various activities, including face-to-face classes, online learning and independent learning. All of them are a combination of traditional learning (guided by teacher / lecturer), synchronous online learning, asynchronous independent learning and structured learning based on the experiences of students and mentors. In addition, [24] argue that blended learning fundamentally combines the positive aspects of two types of learning environments, namely classroom learning and online learning. Blended learning is illustrated in Figure 2

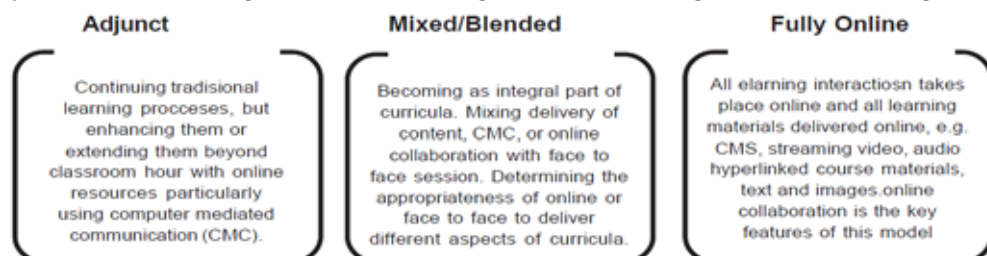| **Adjunct**	**Mixed/Blended**	**Fully Online**
Continuing tradisional learning procceses, but enhancing them or extending them beyond classroom hour with online resources particularly using computer mediated communication (CMC).	Becoming as integral part of curricula. Mixing delivery of content, CMC, or online collaboration with face to face session. Determining the appropriateness of online or face to face to deliver different aspects of curricula.	All elarning interactiosn takes place online and all learning materials delivered online, e.g. CMS, streaming video, audio hyperlinked course materials, text and images.online collaboration is the key features of this model

Figure 2. The elearning continuum adapted from Rasthy (1999) and Noirid (2007)

Figure 2 illustrates the continuum of online learning from "*adjunct*", "*blended/ mixed*" and "*fully online*". Complementary categories are more traditional learning processes. This means that traditional learning is supported by an online delivery system as an enrichment. The existence of an online delivery system is additional. Example to support learning in class, a

teacher / lecturer instructs his students to look for information on the Internet. Meanwhile, the mix / mix category places an online delivery system as an inseparable part of the whole learning process. This means that the process of face-to-face and online learning is one unit.

After the teacher / lecturer is able to achieve blended learning in the new normal era, the teacher / lecturer must get used to and continue to improve their skills to design and choose a learning model that is suitable for all situations. Technology is only a tool that can be used by teachers. The use of simple media such as the WA group can be the simplest and easiest alternative media to use in learning. The key is how to achieve the learning objectives. Students must be familiar with the use of technology and learning platforms in accordance with the conditions and material being studied. Besides learning, in the new normal era, activities such as seminars, final exams, which require video reconstruction, are used to be done online using platforms such as zoom, google meet or the Microsoft team. Other learning platforms that can be used are edmodo, schoology, google classes or WA groups. This platform can be chosen or combined with priority which is always given for comfort and the humanist side. The government must also play an active role in providing affordable Internet services to every corner of the village. In addition, it is hoped that the government will provide assistance to various schools and colleges regarding the provision of the Internet. The government can work with providers to prepare Internet needs as a basis for using online learning. The role of parents must also grow and develop. Parents are expected to remain in control of the child while at home in terms of providing learning facilities, tutoring and intermediaries between school and children if there are problems or learning constraints. This is done so that learning in the new normal era continues as it should.

The results of the study [25] indicate that the Covid-19 pandemic is likely to continue to present challenges beyond the challenges that arise from routine virtual education. Even if the spread of the virus is reduced or if vaccination is available, the transition from online courses to direct learning can create its own disturbances and therefore must be adapted to a higher level of responsibility. this phase can give universities, teachers, and students the opportunity to practice adaptability, patience, and resilience. this experience as a form of preparation for future challenges with the next epidemic, pandemic and other disasters. The results of subsequent studies collected with e-learning during the Covid-19 pandemic are in [26] showing that there are five principles of the great impact of e-learning, namely: (a) high relevance between online learning designs and students. learning, (b) providing effective online teaching information, (c) adequate support is given by teaching staff and instructors to students; (D) high quality participation to increase the breadth and depth of student learning; and (e) contingency plans to manage unexpected incidents from online education platforms.

Furthermore, according to [27] during the Covid-19 pandemic, digital internationalization activities and international initiatives in education include: virtual learning abroad, the use of technology to provide deep intercultural experiences, changing digital learning environments from top to bottom (instructors becoming students) for students, Encourage and empower students to study outside the virtual classroom and share what they have found, Facilitate the use of ongoing knowledge exchange between faculties such as video conferencing and online chat, Assist in the production of intercultural knowledge for the development of general skills in digital space

Online learning has opened up various educational problems in the country. In addition, it also shows that the development of education in Indonesia requires support from various parties. Education as a whole is an ecosystem that cannot be separated from political policy, technological support, adequate infrastructure and support from parents / community. Without all this, education cannot be optimal for educating the country's children.

4. Conclusions

Transforming learning is the key to implementing learning during the Covid-19 pandemic. Transformation of learning is a change in learning paradigm due to certain conditions so that learning continues to run effectively and efficiently in accordance with the learning objectives to be achieved. The learning transformation undertaken during the Covid-19 pandemic is to change learning from face-to-face to distance learning with virtual learning. To implement virtual learning,

the transformation of learning that can be pursued includes the transformation of technology and learning media, transformation of learning designs, transformation of learning models and transformation of assessment processes and learning outcomes. The transformation of learning technology includes the change from the use of technology in the classroom to the use of information and communication technology using laptops, internet-connected handphone. Distance learning can use synchronous learning or synchronous learning. Transforming learning media in distance learning can use learning platforms such as WhatsApp (WA), telegram, instagram, zoom applications or other media as learning media. Learning design can use computer-supported collaborative learning or computer-supported collaborative learning (CSCL). Learning models can use project base learning which stages can be adapted to current conditions with the help of technology. If the learning model used is project base learning, the assessment that can be done when distance learning is to use portfolio assessment. The implementation of learning transformation that must immediately be carried out certainly has an effect on the readiness of educators and students in carrying out learning. Besides learning facilities and the internet can be a serious obstacle for educators and students who live in the interior. The good impact of the transformation of learning, educators and students can immediately learn quickly to be able to carry out learning well. The role of parents can also be more optimal in helping children at home. It is hoped that the transformation of this learning will become a starting point and a habituation in the implementation of learning in the new normal era with the implementation of blended learning.

5. References

[1]   E. D. Sihaloho, "Dampak Covid-19 Terhadap Perekonomian Indonesia," no. April, 2020.

[2]   H. Khairiansyah, "Strategi Transformasi dan Tradisi Pembelajaran dalam Model Integrasi Manajemen Kurikulum Pendidikan Islam (Studi Kasus di SMA Ar-Rohmah Dau Malang)," *Thesis, No Publ.*, 2018.

[3]   A. Samsudin, "Transformasi Pembelajaran di Pendidkan Non Formal (Upaya mempersiapkan pendidik dan peserta didik dalam menghadapi tantangan global untuk menjadi manusia pembelajar)," vol. 2, no. 2252, pp. 1–15, 2013.

[4]   S. Luthra, Poornima & Mackenzie, "4 ways COVID-19 could change how we educate future generations," 2020.

[5]   D. Tam, Gloria & El-Azar, "3 ways the coronavirus pandemic could reshape education," 2020.

[6]   A. R. E. D. Nugraheni, "Pengaruh Penerapan Pembelajaran E-learning terhadap Kemandirian dan Minat Belajar Mahasiswa pada Mata Kuliah Wawasan dan Kajian MIPA," vol. 9, no. 1, pp. 111–116, 2017.

[7]   A. Ratnasari, "Studi Pengaruh Penerapan E-learning terhadap Keaktivan Mahasiswa dalam Kegiatan Belajar mengajar Studi Kasus Universitas Mercu Buana Jakarta," vol. 2, no. 2, pp. 15–16, 2012.

[8]   I. Munawaroh, "Virtual Learning dalam Pembelajaran Jarak Jauh." 2005.

[9]   N. Septantiningtyas, "Pengaruh Pembelajaran Jarak Jauh dengan Aplikasi Google Class terhadap Hasil Belajar Mahasiswa," vol. 2, no. 2, pp. 1–5, 2019.

[10]   A. Y. L. Hatip, "Minat, Kemandirian dan Hasil Belajar Mahasiswa Pendidikan Matematika dalam E-Learning Berbasis Edmodo," vol. 8, no. 3, pp. 485–496, 2019.

[11]   S. Kartikawati and H. Pratama, "Pengaruh Penggunaan WhatsApp Messenger Sebagai Mobile Learning Terintegrasi Metode Group Investigation Terhadap Kemampuan Berpikir K," vol. 2, no. September, pp. 33–38, 2017.

[12]   M. Multazam and K. Gunawan, "Konsep Pengembangan Pembelajaran Kolaboratif Berbasis Mobile Learning," vol. 7, no. 2, pp. 18–23, 2018.

[13]   I. M. Ramadhani, "Efek Model Pembelajaran Berbasis Proyek dengan Strategi Think Talk Write dan Kreativitas Ilmiah terhadap Hasil Belajar Kognitif Tingkat Tinggi Siswa SMA pada Pelajaran Fisika," *Dikfis*, vol. 4, no. 1, pp. 17–24, 2015.

[14]   Sunandar, "Pengaruh Penilaian Portofolio dan Kecerdasan Emosional terhadap Hasil Belajar Matematika Topik Dimensi Tiga Siswa kelas X SMA Negeri 4 Kendari Tahun 2006," *Semnas Mat. dan Pendidik. Mat. 2008*, pp. 281–299, 2008.

[15]   L. D. Anggreni, I. N. Jampel, and K. S. Diputra, "Pengaruh Model Project Based Learning

Berbantuan Penilaian Portofolio Terhadap Literasi Sa," vol. 25, no. 1, pp. 41–52, 2020.

[16] B. J. Hoskins, "Is Distance Learning Transformational ?," vol. 61, no. 1, p. 7363, 2013.

[17] N. Batang, "Pengaruh Penggunaan Internet Sebagai Sumber Belajar Terhadap Motivasi Belajar Siswa SMTK Long Bia Kecamatan Peso Kabupaten Bulungan Provinsi Kalimantan Utara," pp. 0–4, 2017.

[18] L. C. Cynthia, T. Martono, and M. Indriayu, "Pengaruh Fasilitas Belajar dan Motivasi Belajar terhadap Prestasi Belajar Mata Pelajaran Ekonomi Siswa Kelas XI IIS dI SMA Negeri 5 Surakarta Tahun Ajaran 2015/2016," 2016.

[19] W. E. Zepiliana, "Analisis Pengaruh Pemanfaatan Teknologi Informasi, Budaya Akademik dan Kompetensi Dosen terhadap Kinerja Jurusan/Program Studi di Universitas Diponegoro," pp. 1–11, 1993.

[20] Alfikalia, "Keterlibatan Orang Tua dalam Pendidikan Mahasiswa di Perguruan Tinggi," *INQUIRY*, vol. 1, 2017.

[21] U. A. Chaeruman, "Designing Blended Learning Model," pp. 399–409, 2013.

[22] K. Thorne, *Blended Learning : How to Integrate*. 2003.

[23] B. H. Khan, "Managing E-Learning Strategies :," no. April, pp. 1–2, 2005.

[24] I. C. Bonk, C. Graham, and C. Graham, "Innovations Strategist, Sun Knowledge Systems, Sun Microsystems 2.3 Putting Customers First — Blending Learning Capabilities with Customer Needs; Lutz Ziob, General Manager of Microsoft Learning, Bob Mosher, Director, Learning and Strategy Evangelist," 2004.

[25] Y. Iwai, "Online Learning during the COVID-19 Pandemic," pp. 1–4, 2020.

[26] W. Bao, "COVID-19 and online teaching in higher education : A case study of Peking University," no. March, pp. 113–115, 2020.

[27] J. W. Moravec, "Paper International education in the era of COVID-19 : Making learning visible," vol. 8, no. 1, pp. 38–42, 2020.