THE IMPACT OF LEARNING LOSS ON HIGHER EDUCATION STUDENTS IN INDONESIA: A CRITICAL REVIEW

Dalimawaty Kadir STKIP Asy-Syafi'iyah Internasional Medan, Indonesia <u>d5waty@gmail.com</u>

Ika Sartika

STKIP Asy-Syafi'iyah Internasional Medan, Indonesia ikasartika121@gmail.com

Edwin Mirzachaerulsyah

Department of History Education, Faculty of Teacher Training and Education Universitas Tanjungpura, Indonesia <u>edwin.mirzachaerulsyah@fkip.untan.ac.id</u>

Anju Nofarof Hasudungan

Senior High School 1 Rupat, Indonesia anjuhasudungan81@guru.sma.belajar.id

ABSTRACT

This study aims to describe the impact of learning loss on students at universities in Indonesia who are often overlooked in educational discourse during the COVID-19 pandemic. Learning loss is only considered to have an impact on students at school. Whereas learning loss is a global phenomenon, which threatens all students around the world, both in schools and universities. The research method used is descriptive research method with a case study approach. Data were collected through questionnaires, interviews, document analysis, literature study, and observation. Then the data was analyzed adopting interactive analysis from Miles and Huberman. The results of the study indicate that learning loss that occurs in students affects student readiness, not only in the process of achieving competence and learning objectives at university, but also students' readiness to enter the world of work. As many as 87% of students are worried about whether they can get a job after graduating during the COVID-19 period. This concern is reinforced by the phenomenon: around 88% or 9 out of 10 companies are affected by the pandemic in Indonesia. Unemployment is open as much as 3.5 million to 8.5 million people throughout 2020, while Indonesia's economic growth in 2020 is minus 2.07 %.

Keywords: Higher education, distance learning, students at university, learning loss, pandemic COVID-19

INTRODUCTION

Online lectures due to the COVID-19 pandemic have been going on for more than two years. Not only does it pose new challenges for students and lecturers in their innovation and creativity, one of the effects of prolonged online lectures that are currently being faced is the emergence of the threat of learning loss or reduced knowledge and skills academically. Basically, the potential for

1

learning loss occurs due to the reduced intensity of interaction between lecturers and students during the learning process (Hasan & Bao, 2020; Efriana, 2021). In addition, limited facilities and infrastructure, internet quota, availability of gadgets and limited internet access can be the trigger (Widayanti & Suarnajaya, 2021; Hastuti et al., 2021).

Dean of the Faculty of Engineering and Information Technology as well as a senior lecturer at the Swiss German University (SGU) Postgraduate, Maulahikmah Galinium (in kalderanews.com, 2021) emphasized that the COVID-19 pandemic, which forced the lecture system to switch to an online system, gave birth to a number of problems. He mentioned two weaknesses, namely related to engagement and motivation. That in the early days when Indonesia implemented a distance learning system or distance learning, stuttering was everywhere. Starting from the capacity of educators who are not able to carry out the distance learning process properly. Stuttering also occurs in inadequate supporting facilities and infrastructure, both from educational institutions and from learning partners, in this case parents. So then from here it can be seen that the learning loss problem is not singular (Engzell et al., 2021; Muhlisin et al., 2022). But it is more massively structured and of course comprehensive and complex.

Face-to-face lectures on Saturdays are a time for refreshing, gathering with new friends and not office friends, then chatting and discussing together with lecturers. That all no longer exists when studying online. Students' motivation to learn is reduced when studying online (Kim & Frick, 2011; Gustiani, 2020; Meşe & Sevilen, 2021). During face-to-face lectures, he explained, not infrequently office problems were brought up for discussion on campus. Engagement like this no longer exists, so it can be said that this is one of the weaknesses of the online lecture system. The problem is engagement, there are no meetings/encounters. Then the tasks that normally can be discussed directly but are now forced to be fully online. The discussion became a bit difficult, because you have to make an appointment with your group friends. Although online lectures come with a number of weaknesses, he admits, online lectures can actually give birth to new programs that are visionary as long as these weaknesses can be solved. So the intensity of communication between lecturers and students is more intensive is the key (Almendingen et al., 2021; Godber & Atkins, 2021; Fenton et al., 2021).

The curriculum has not changed at all. The only change is in the medium of delivery, which previously met face-to-face, is now online (Mishra et al., 2020; Singh et al., 2021; Lockee, 2021). Because there is no longer face-to-face, the solution is through video calls and assignments. Students are challenged to be more pro-active. Likewise with the lecturers who usually meet, but because now they can't meet in person, the lecturers are obliged to spend more time than when they are offline. The time needed online must be more and more intensive. The COVID-19 pandemic has brought education systems around the world to a standstill and has caused learning loss for millions of students over the last two years (Darmody et al., 2020; Pasani et al., 2021). The decline in productivity, income, and even the global economy overshadows the lives of this generation in the future.

After the pandemic, this share has the potential to rise to 70% given that universities can be closed in the long term and the distance learning pattern implemented is less effective in According to the report published by the World Bank with UNESCO and UNICEF, the current generation of students is at risk of losing US\$17 trillion in income lifetime in present value, or about 14 % of current global GDP. These projections are more severe than previously thought, and far exceed the US\$10 trillion forecast released in 2020. And the potential for increased Learning Poverty may have an adverse impact on future productivity, income, and well-being for this generation of children and youth, their families, and the world economy. The research team from the three world institutions also found that in low- and middle-income countries the impact of learning loss is worse for female students, as they quickly lose the protection that universities and learning offer for their well-being and life opportunities (Darmody et al., 2020; Stringer & Keys, 2020; Fruehwirth et al., 2021).

To stem the 'wounds' of this generation, we must reopen universities and keep them open, target outreach to return students to university, and accelerate the recovery of learning. One of the effects of online lectures felt by students is learning loss (Khalil et al., 2020; Middleton, 2020; Hasudungan et al., 2022). This phenomenon refers to the condition of loss or limited ability and knowledge in academic matters. In general, learning loss occurs because of a prolonged gap or discontinuity in education. As a result, the knowledge received by students is not as good as it was before the pandemic.

There is always an impact from abnormal conditions in this case, the motivation of students is very necessary in adjusting to the conditions (Zaccoletti et al., 2020; Ikhwan & Andriyanti, 2021; Koob et al., 2021). The potential for learning loss will still exist if the students are unable to adapt and students cannot develop according to the existing subject areas. The limited access to online lectures can be circumvented by participatory and project-based learning patterns (Nitiasih et al., 2021; Miller et al., 2021). Not all lecturers have to provide material. And with limited access, participatory and project-based learning patterns can be developed further. All of this really depends on the student's motivation to adapt to the conditions.

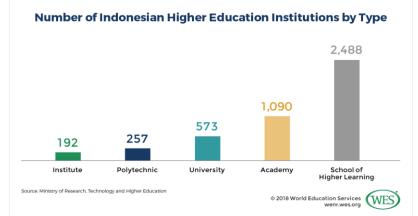


Figure 1. Number of Indonesian Higher Education Institutions by Type Source: (World Education News & Reviews, 2019)

The adjustment also has an impact on reducing the number of lecture meetings in one semester, from the previous minimum of 14 to 12 lecture meetings. Related to trimming lecture meetings with the aim of making lectures more flexible. So lecturers are allowed to multiply meetings as needed. The policy of reducing the number of meetings is an effort to make it easier for students by reducing study hours and minimizing quota spending for lecture purposes. This is a challenge to provide concrete understanding to students. With the limited number of meetings, it creates an additional burden of lectures. Initially, the lecturer had planned 14 meetings, but it had to be reduced to 12. The dense material required students to continue learning and adapting to the pandemic situation. Another obstacle to online lectures is related to the Zoom Premium facility from the faculty. The campus has provided Zoom facilities for all teaching staff, provided that the lecturer submits the hours and days for the virtual meeting to be held (Rapanta et al., 2020; Pokhrel & Chhetri, 2021; Bashir et al., 2021). Every lecturer can borrow the Zoom if they really need it.

³

It's just that because of the limitations of Zoom Premium, so if someone is using it, you have to be able to adjust it.

Inadequacy in the process of achieving competence and learning objectives at the university makes students experience learning loss and the effect causes students to be insecure about whether to get a job after graduating from university. This is exacerbated by economic conditions that have not fully recovered in the midst of the COVID-19 pandemic, making business actors often experience difficulties. The impact on the increasingly fierce competition to find work, especially for new graduates. The emergence of COVID-19 has become the epicenter of new problems in Indonesia, employment has narrowed, many companies have laid off workers, have not held recruitment, and their business has been suspended (Ayuningtyas et al., 2021; Gamalliel et al., 2021; Muhyiddin & Nugroho, 2021). Of course, in the long term, if a solution is not immediately sought, it will affect the preparation of the State of Indonesia to take advantage of the demographic bonus in 2030 and Indonesia Gold in 2045 in the future.

RESEARCH METHOD

The research method used is descriptive research method with a case study approach. Case studies are included in descriptive analytical research, namely research conducted focused on a particular case to be observed and analyzed carefully to completion. The case in question can be singular or plural, for example in the form of individuals or groups. A case study is an intensive, detailed and in-depth approach to certain symptoms, in this context learning loss as an impact, and students as research subjects or individuals experiencing learning loss during the COVID-19 pandemic.

In the case study, the researcher becomes the key instrument. As a key instrument, the presence and involvement of researchers in the field is prioritized. Therefore, in case studies, researchers must realize that they are planners, data collectors and analyzers, as well as reporting the results of their own research. The presence and involvement of researchers in the field is publicly known by the research subjects (students at the university).

Creswell & Creswell (2018) argues that case studies involve the collection of a lot of data because the researcher tries to build an in-depth picture of a case. A good analysis is needed in order to be able to compile a detailed description of the cases that arise. In this study, data were collected through questionnaires, interviews, document analysis, literature study, and observation. In the process of credibility of case study research data, Stake (1995) stated that a case study requires extensive verification through triangulation and member checks. Stake suggests triangulation of information, namely seeking to concentrate information that is directly related to "data conditions" in developing a case study. For member check, Stake recommends researchers to check with members involved in this case study research and represent their colleagues to provide reactions from their own views and situations to the data that has been organized by the researcher.

In data analysis, the authors adopt interactive data analysis from Miles & Huberman (1994) which is divided into several stages, namely as follows: First, data reduction is the stage of data simplification according to the needs so that it is easy to get information. The data that has been collected will be categorized or grouped into data that is very important, less important, and not important. Furthermore, researchers can store which data is necessary and discard data that is not necessary for research. That way the data will be simpler and clearer so that it is easy to move to the next stage.

Second, the presentation of data is done to display data that has been reduced into the form of graphs, charts, and others. The goal is to make it easier to convey and understand by other parties.

⁴

This will also make it easier for readers to absorb the information contained in the data. Third, conclusion drawing is information obtained from data that has been compiled and grouped which is then presented using certain techniques. Conclusions can be placed at the end or as a closing so that the reader can find conclusions from the entire research. In qualitative research, one very important component is the selection of respondents who will be used in research. As with quantitative research, qualitative research needs sampling techniques. The authors uses a purposive sampling technique to determine the respondents to be used in the research. The author determines the criteria regarding which informants can be selected as research subjects (Sugiyono, 2017).

Profession	Total	Male	Female
Lecturer	6	3	3
Students in the class of 2017	11	6	5
Students in the class of 2018	10	5	5
Students in the class of 2019	9	5	4

Table 1. Profiles of research subject

RESULTS AND DISCUSSION

Results:

This learning loss has an impact on children's intellectual abilities and skills in life in the future. In addition, it is risky to earnings or income, later he will work. The competence of students is also feared to drop and cannot compete in the world of work. One of the signs that shows that students experience learning loss while participating in distance learning is when writing a thesis or Final Project they cannot assemble and explain the problem in terms of the knowledge they are learning. Likewise, when working later, these students will have difficulty dealing with problems that must be solved.

In the next two years, how many graduates will get cum laude predicate? If there are more, it doesn't necessarily mean that the distance learning system currently implemented is successful. Need to prove the field whether their products will also be better. What needs to be done for students is their seriousness in participating in the learning process. They must demonstrate the success of the value obtained also reflects their success in adding knowledge. Learning loss is a challenge for universities, teachers, and parents to be more creative, innovative, adaptive, and collaborative, so that learning loss can be avoided. If the Wuhan virus pandemic continues to frustrate educators and parents, feel numb, numb, always apathetic and pessimistic, then learning loss could become a reality.

Many parties are worried about the phenomenon of lost generation, due to the lack of optimal education services for children during the pandemic season. The phenomenon of lost generation is the impact of the loss of opportunities for students to obtain maximum learning (lost learning). As stated in a survey of domestic and foreign institutions, distance learning carried out during this pandemic is considered ineffective. A UNICEF survey in June 2021, for example, said that 66 % of students were uncomfortable with distance learning. Moreover, so far distance learning has always relied on ownership of digital devices. Even though everyone understands that people's lives in the region and during the COVID-19 pandemic are very difficult economically. Learning

⁵

loss that can be identified from statistical literacy skills is 28.3% of students who do not answer the questions given from the indicators of interpreting the data provided, and 32.58% in communicating the results of information/data processing. Students only do what they can remember. Actually, the learning loss of students' statistical abilities can also be seen from the results of students' answers that none of them can do the 4 questions given correctly. Only a few students can do 2 questions correctly. Supported by the results of interviews with students, the potential for learning loss in students' statistical literacy skills is very clear.

Even among the parents of students have become victims of termination of employment. With this situation, let alone buying digital devices and internet quota, it is very difficult for people to meet the basic needs of everyday life. Online learning is also a problem for students who live in areas that have not been reached by the internet. That is why the policy of the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia to organize face-to-face learning needs to be supported by all parties. It is important for local governments to support while ensuring that face-to-face learning continues to use strict health protocols.

This is because the face-to-face learning policy is intended to prevent lost learning and lost generation. That way, the quality of the nation's generation does not continue to decline. Face-to-face learning is also important to ensure the government's projections when formulating the 2045 golden generation (*Indonesia Emas*) roadmap. This roadmap was created to welcome the birth of the nation's golden generation just as Indonesia celebrates the anniversary of the independence of the Republic of Indonesia or known as *Indonesia Emas* in 2045. At that time, our beloved country will enjoy a demographic bonus. The golden generation of productive age with character, competence, and high literacy is expected to be abundant.

This dream is very likely to fail if the country does not respond appropriately to the impact of the COVID-19 pandemic. This pandemic has entered its second year. The impact of the pandemic on education is also extraordinary. For three semesters, starting from March 2020 to July 2021, most education units are still carrying out online/virtual learning. Even in the new academic year 2021/2022, which is expected to be the beginning of the implementation of face-to-face learning, distance learning is still being used. This is because in July-August 2021 there was a spike in COVID-19 cases.

The government has designated this period as the COVID-19 emergency period. But now the condition of the pandemic continues to slide. With conditions continuing to improve, the Ministry of Education and Culture asked local governments to start the implementation of face-to-face learning. Until now, educational units ranging from Elementary Schools, Junior High Schools, and High Schools/Vocational High Schools and of course Universities/Colleges have carried out face-to-face learning. We certainly hope that all parties help the implementation of face-to-face learning so that it takes place well. It is important for parents to provide support by encouraging children to take part in face-to-face learning.

In addition, parents are asked to ensure their children continue to live a lifestyle with strict health protocols. Studying at university by wearing a mask, keeping a distance, diligently washing hands with soap, and other health cultures. It must be believed, face-to-face learning is the best choice in the midst of this on-going pandemic. Now what is being awaited is the readiness of universities to hold face-to-face learning. The challenge for educational units, including universities, is to prepare everything needed in the event of a case of the spread of COVID-19. If a cluster occurs in an educational institution, the best step is to find a solution so that the spread of COVID-19 does not continue to occur. So, not by cancelling face-to-face learning. This commitment is important for universities, local governments, parents, and students. Hopefully this way can save the nation's

generation from the threat of lost learning and lost generation during the COVID-19 pandemic and in the future after the COVID-19 pandemic ends.

Distance learning can cause the biggest learning loss in Indonesian history, we need to respond critically. The learning loss was caused by the Covid-19 pandemic that was experienced not only by the Indonesian people, but also by other nations in the world. Where our learning system or teaching and learning process so far, which incidentally exists in the era of the industrial revolution 4.0 to the era of 5.0, is not directly proportional to the increase in infrastructure capacity and the super-structure of the teaching and learning process itself. That there must be a fundamental commitment to reform the infrastructure and super-structure of the teaching and learning process in Indonesia today. So that the teaching and learning process can face what is currently referred to as VUCA (volatility, uncertainty complexity and ambiguity).

Online learning that is carried out must meet several aspects that must be ensured, which follows the direction of the Ministry of Education and Culture, Research and Technology, these aspects include: 1) Course Delivery; 2) Learning Feedback; 3) Assessment & Exam; 4) Knowledge Mastery and re-discovery; 5) Assuring Competency/ learning outcomes. To anticipate learning loss, a number of institutions under the auspices of the Ministry of Research, Technology and Higher Education are also actively developing lecture models and modules so that the implementation of online lectures can run more optimally. Held training for all lecturers related to how to prepare learning modules, conduct good lectures. Learning at the University in 2021/2022 will determine whether the learning loss will be even greater or the impact can be minimized. Because it has been almost two years that students have not studied optimally because of distance learning due to the COVID-19 pandemic. Therefore, studying at universities in 2021/2022 is a momentum to restore students' confidence that, after they graduate from university, they will get a job because they have acquired knowledge (theory), skills and soft skills at university.

To answer it, we must understand that the city is a space where human entities build and develop civilizations. In it there are a number of interrelated variables that are very complex. Therefore, to read it, you must associate all the variables so that they can be read more carefully and correctly. The first variable is human, as the most important variable in the context of understanding the city. Because the presence or absence of life, whether or not a city moves is closely related to the people who live in the cities themselves. The second variable is the city's current infrastructure. Infrastructure becomes important in the context of urban variables, because it becomes a bridging or bridge that brings together ideas about change and civilization in cities that are supported by science with the ability to execute or implement them in the field. It is the power of science that underlies all infrastructure and connectivity which then produces the form of urban civilization today. Here it is also important to pay attention to the third variable, namely science. The reason is clear and this is very relevant to respond to learning loss in students, and readiness to become workers in the city.

Learning loss means that there will be a time when the learning entities of the Indonesian people do not get sufficient intake of knowledge at a certain period. So this certainly has an influence on the future of the city itself. The city will be propped up on the shoulders and shoulders of generations (students in college/university) who were cut off because they experienced learning loss. So this decision will certainly have a significant impact on the city itself in the future. In other words, a city that had been cut off from its knowledge of course would also experience injuries from the journey of civilization. So, what solutions can be offered to reconcile the scientific crisis due to the facts of learning loss that is currently happening? To reduce the negative impact of this learning loss, bold and less ordinary steps are needed. For example, the government makes a

special project, for example a province and a program, which of course requires a greater outpouring of resources than usual to try to find the most basic side in the context of learning loss itself.

Second, it is with great courage that the government must indeed make policies to provide resources with the capacity to overcome this in the form of changing policies, for example setting 100% face-to-face learning at several universities in Indonesia, although with very strict rules. Or have to change the whole governance of our education system with a completely new model of everything. If these choices are made, then the threat to the future city that will be inhabited by young people today, can be reduced. A city where human civilization is beautifully sown, can only happen because only in cities, schools, campuses, offices and even superior humans live and work. The dynamics of the economy during the COVID-19 pandemic have forced the young workforce to fight harder in finding jobs. Not infrequently during this pandemic period, many students who have just graduated from college then choose to become entrepreneurs, due to the difficulty of finding jobs.

Discussion:

The Central Statistics Agency (Badan Pusat Statistik in Indonesia) provided information that in 2020 data on open unemployment was obtained as many as 6.9 million people, of which 3 million fresh graduates were in need of work during the pandemic. Unemployment is not only limited to individuals who have not worked but individuals who work but their work is not productive can be classified as unemployed. Based on these data, conditions like this have a big impact in the career world, especially for fresh graduates. Based on these data, conditions like this have a big impact in the career world, especially for fresh graduates. The current pandemic results in increasingly fierce competition in the world of work and can disrupt the careers of undergraduate graduates.

Based on the results of the February 2020 national labor force survey, the Central Statistics Agency noted that the level of educated unemployment experienced a significant increase. These data indicate that open unemployment has escalated from 3.96% to 7.07% within 1 year Fresh graduates are currently also known as Generation Y, which is the generation that chooses to change jobs after 1 year of work (Badan Pusat Statistik, 2020). The Institute for Fiscal Studies (in Fazirah, 2021) predicts that fresh graduates who graduate during the COVID-19 pandemic will have difficulty finding a livelihood and will be forced to start their first job using low pay. Being unemployed for too long will cause job seekers to give up trying to find work. Final year students will face demands in career selection. Choosing a job that is not based on abilities, interests and personality can slow down the process of adapting to work. Difficulty in determining a career indicates immaturity in planning a career, which has an impact on unpreparedness to enter the world of work.

Setiawan et al. (2019) found the phenomenon of many fresh graduates in choosing jobs not based on considerations of interests, abilities and personality. They tend to choose a job based on anxiety if they are unemployed for too long. In addition, final year students are entering early adulthood, where they are often faced with challenges resulting in uncertainty and instability. Universitystudded and younger students have less access to distance learning and are more affected by learning loss than older students (Engzell et al., 2021), especially among preschool-aged children in this critical stage of learning and development.

The detrimental impact on learning disproportionately affects those who are most marginalized or vulnerable. Learning losses are greater for students with lower socioeconomic status in countries

8

such as Ghana, Mexico, and Pakistan. Yustika Citra Mahendra, Lecturer of International Relations at Brawijaya University (in LPM Perspektif, 2021) said that the internet quota assistance is considered too small compared to the online burden that must be borne by lecturers. During the pandemic, distance learning around the world is less effective. However, the limited intensity of learning during the COVID-19 pandemic triggers learning loss (Harjudanti, 2021). On the other hand, learning policies, including universities, must prioritize health and safety. The principle of prioritizing health, but also trying to minimize learning loss (Darling-Hammond et al., 2020; Emanuel et al., 2020). This is the best effort in the midst of a pandemic for the safety of the academic community and campus education staff. The interaction between lecturers and students continues to decline, accompanied by a decrease in the mastery of student competencies. If we allow distance learning for too long, the risks experienced by students, education and the country's economy will be even greater (Armstrong-Mensah et al., 2020).

Condition	Scale
Learning at the time of lectures at each tertiary institution translates it often differently (according to the conditions and circumstances of each institution).	High
Online learning requires qualified facilities, the majority of students have difficulty accessing online (e-learning platforms). There are several factors, such as students having difficulty signaling or the platform owned by the agency often performs maintenance or errors.	High
There are some students who do not have facilities such as laptops.	Medium
The existence of the <i>Merdeka Belajar</i> program (Independence Campus), often has difficulties with the parties involved. Examples include Internship Programs/Work Practices, Village Building, Student Exchange (which must be done online).	Medium
Submission of material by E-Learning often students experience learning	High
loss.	
An assessment system that is not open to students and the number of assignments given by the lecturer	Medium

Table 2. Mitigation of Learning Loss: Risk Indicator ScaleSource: (Putri et al., 2021)

The risks posed by higher education/university policies during the pandemic related to distance learning must be addressed immediately because the majority have a high risk indicator scale. If these risks are not addressed immediately, it can cause on-going negative impacts such as: 1) decrease in academic achievement or achievement (decreased quality) of students due to learning lost in receiving learning or material that has been delivered; 2) learning in higher education becomes ineffective because of the unequal distribution of facilities (in the form of internet network, availability of electricity, etc.) in every region of Indonesia, especially in frontier, remote, and underdeveloped areas; 3) the learning time carried out is reduced due to time constraints in the use of virtual platforms as learning media; 4) students find it difficult to concentrate when implementing distance learning at universities, because of the many assignments from lecturers, so that many students experience stress; 5) in addition to increasing stress and boredom, continuous distance learning has the potential to turn students into passive, less creative and productive students, and can also reduce student interest in learning; 6) and the implementation of distance

learning can also trigger social inequalities or gaps that have an impact on the quality of learning, considering that not all students have complete and adequate facilities (devices/smartphones/gadgets, laptops/computers) to access lecture learning media.

To minimize the impact of higher education policies during the pandemic regarding the implementation of distance learning (Amir et al., 2020; Nurjanah et al., 2021; Pelikan et al., 2021), it is necessary to determine several alternatives such as stopping the implementation of distance learning and re-activating face-to-face learning (offline) with strict health protocols; if distance learning continues, the government and universities (both public and private) need to develop varied learning innovations (in collaboration with platforms such as Google); Universities need to carry out regular evaluations (through surveys uploaded to the college's in academic management information system) between teachers and students regarding the obstacles/problems/obstacles encountered during the learning process; The government needs to relax School Operational Assistance and Operational Assistance Funds for state universities and provide assistance to students with limited access to technology.

The results of research from Noviantari & Faridhoh (2021), that the low statistical literacy ability of these students is one sign of learning loss. Students who should be able to achieve statistical literacy competence, it turns out that with online lectures, learning competence is not achieved, so it can be said that there is a learning loss. The basic competencies that students must have in studying basic statistics are not as expected. The online learning process makes the information, knowledge, and data processing skills that should be obtained by students, cannot be received optimally so that it affects student learning outcomes.

Almost all students stated that it was difficult to understand the material presented by the lecturer online, so they had difficulty in working on the questions given. The explanations made by online lecturers, even though they have used zoom, are still not understood by students. Students at the university feel that direct explanations, even though via zoom, are still not able to overcome their lack of understanding (Coman et al., 2020). Students are not free to ask questions and still need more time to understand what is being conveyed.

The results of research from Assiddiqi & Soeryanto (2021)show that the online learning process at the Department of Mechanical Engineering, State University of Surabaya has an impact on the self-ability of students who will experience Learning Loss. The pattern of learning that turns into online learning causes the loss of emotional bonds so that learning becomes meaningless. The online learning process also makes student learning activities and experiences limited because they only get theory without being able to apply it. This condition makes student learning development unbalanced because not all the required competencies can be provided in online learning. However, with independent learning, students are able to increase the value of their courses in online learning, but the learning outcomes obtained by students decrease. The quality of student learning an emergency curriculum for students (ECLAC & UNESCO, 2020), applying the independent learning model, and conducting assessments and evaluations of student learning outcomes.

To prevent learning loss, universities, lecturers, and parents need to facilitate students using the Learning Management System (LMS) as a digital platform at universities. LMS can be a place to connect interactions between lecturers and students. University management can combine online and offline using applications, such as Whatsapp (WA), Video Call WA, or collaborate with limited face-to-face meetings. Another way, lecturers can make home visits to students who have limited internet networks or do not have devices. Recalling the advice from Ki Hajar Dewantara (Father of Indonesian Education), that everyone is a teacher and all places are universities (Towaf,

2017). In addition, according to the authors, it is necessary to improve the current distance learning. Hold trainings. Complete distance learning infrastructure don't just look for instant and high-risk ways that make it worse for students and lecturers to use distance learning.

According to Nizam (in Antara, 2022), there are four important points related to the implementation of even semester 2021/2022 learning. First, the implementation of face-to-face learning is limited according to the level of application of restrictions on community activities in each area. Second, vaccination coverage for the academic community and education staff is one of the considerations in the implementation of limited face-to-face learning. Third, in practice, face-to-face learning is limited, universities are required to use the *PeduliLindungi* application (see https://www.pedulilindungi.id/) for screening purposes when entering the campus area. Fourth, Higher Education Service Institutions strengthen their role in supervising and reporting on health protocol compliance of higher education learning activities. Furthermore, Nizam said, regarding the adjustment of the level of Implementation of Restrictions on Community Activities. Regional campuses at the level of Enforcement of Restrictions on Community Activities 1 or 2 with the achievement of vaccination dose 2 above 80 % can hold face-to-face learning every day. The number of participants is 100% and the maximum learning time is 6 hours/meeting/day. If the achievement of vaccination dose 2 is above 50 %, PTM can be carried out alternately (hybrid). The number of participants is 50 % and the maximum learning time is 6 hours/meeting/day. For vaccination doses below 50 face-to-face learning, the maximum learning time is only 4 hours/meeting/day.

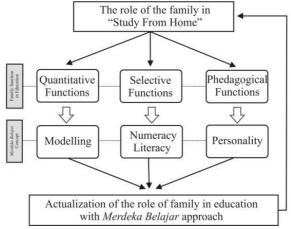


Figure 2. The role of parents and the Merdeka Belajar approach

Addition to maximizing the role of parents through their functions with the *Merdeka Belajar* approach above. The study from home learning from the Ministry of Education and Culture has the potential to create intimacy by creating a new culture at home, especially family literacy culture, and minimize learning loss. It can be in the living room, a special study room, to a permanent room that is designated as a gathering place. Especially if other family members imitate to produce written works. Of course, literacy in the family is not just a matter of talking. However, literacy has also become a family planning program that is not limited to reading but also writing, this activity can produce products or writing from the basic education environment, namely the family.

The solutions that the authors can offer are: 1) Re-enacting face-to-face lessons with strict procedures; 2) Provide a new platform for students so they don't get bored during lectures; 3) There

11

are regular evaluations between teachers and students by discussing learning methods; 4) Relaxation of School Operational Assistance and Operational Assistance Funds for state universities; 5) Providing assistance to students who have difficulty in distance learning. The Government of the Republic of Indonesia also encourages higher education institutions in the area of the Imposition of Restrictions on Community Activities level 1 to 3 to start face-to-face lectures in accordance with the guidelines and provisions set out in the Circular Letter of the Ministry of Education and Culture, Research and Technology. Efforts to hold face-to-face lectures in full, in order to reduce the risk of learning loss or the decline in student learning abilities and to maintain the quality of student learning.

CONCLUSION

Learning loss does not only occur among students at school, but also among students at universities. The impact of learning loss in higher education is still rarely discussed by researchers, the topic of learning loss in schools still dominates. This research seeks to contribute to describing the impact of learning loss on Higher Education students in Indonesia as a critical analysis. Indicators of learning loss for Higher Education students in Indonesia, namely: 1) Students in writing a thesis or final assignment cannot assemble and explain the problem from the side of the knowledge they are studying; 2) Students are not mastered because they are unable to understand the material or even because they lose the basic/initial competence that they should have learned at the university; 3) The results of the research from Noviantari & Faridhoh (2021) conveyed, the results of the statistical literacy ability analysis test of students majoring in Mathematics Education at the University of Borneo Tarakan show that overall the average student literacy ability is still low. Learning loss that can be identified from statistical literacy skills is that as many as 28.3% of students do not answer the questions given from the indicators interpreting the data provided, and 32.58% in communicating the results of information/data processing; 4) Research from Sulistyowati et al. (2021) revealed that 38% of students at the Faculty of Economics, Jakarta State University were satisfied with online learning that was already underway. However, there are still 27% of students who think that they are not satisfied and the remaining 35% are still unsure about online learning. That is, students lose the opportunity to gain knowledge and skills for developing human resources that affect learning outcomes; 5) In the end, the results of the study indicate that learning loss that occurs in students affects student readiness, not only in the process of achieving competence and learning objectives at university, but also students' readiness to enter the world of work. As many as 87% of students are worried about whether they can get a job after graduating during the COVID-19 period. This concern is reinforced by the phenomenon: around 88% or 9 out of 10 companies are affected by the pandemic in Indonesia. Unemployment is open as much as 3.5 million to 8.5 million people throughout 2020, while Indonesia's economic growth in 2020 is minus 2.07%.

REFERENCES

Almendingen, K., Morseth, M. S., Gjølstad, E., Brevik, A., & Tørris, C. (2021). Student's experiences with online teaching following COVID-19 lockdown: A mixed methods explorative study. *PLOS ONE*, 16(8), e0250378. https://doi.org/10.1371/journal.pone.0250378

Amir, L. R., Tanti, I., Maharani, D. A., Wimardhani, Y. S., Julia, V., Sulijaya, B., & Puspitawati,

R. (2020). Student perspective of classroom and distance learning during COVID-19 pandemic in the undergraduate dental study program Universitas Indonesia. *BMC Medical Education*, 20(1), 392. https://doi.org/10.1186/s12909-020-02312-0

- Antara. (2022, February 14). Keterbatasan Intensitas Pembelajaran Picu "Learning Loss." *Koran-Jakarta.Com*, 1. https://koran-jakarta.com/keterbatasan-intensitas-pembelajaran-picu-learning-loss?page=all
- Armstrong-Mensah, E., Ramsey-White, K., Yankey, B., & Self-Brown, S. (2020). COVID-19 and Distance Learning: Effects on Georgia State University School of Public Health Students. *Frontiers in Public Health*, 8(September), 1–10. https://doi.org/10.3389/fpubh.2020.576227
- Assiddiqi, D. R., & Soeryanto. (2021). PELUANG MENURUNNYA CAPAIAN HASIL BELAJAR (LEARNING LOSS) DAN ALTERNATIF SOLUSINYA : KAJIAN KASUS PEMBELAJARAN ONLINE DI ERA PANDEMI COVID-19 DI JURUSAN TEKNIK MESIN UNESA. Jurnal Pendidikan Teknik Mesin, 10(3), 47–54. https://ejournal.unesa.ac.id/index.php/jurnal-pendidikan-teknik-mesin/article/view/42617
- Ayuningtyas, D., Haq, H. U., Utami, R. R. M., & Susilia, S. (2021). Requestioning the Indonesia Government's Public Policy Response to the COVID-19 Pandemic: Black Box Analysis for the Period of January–July 2020. Frontiers in Public Health, 9(May), 1–13. https://doi.org/10.3389/fpubh.2021.612994
- Badan Pusat Statistik. (2020). *Keadaan Ketenagakerjaan Indonesia Agustus 2020*. https://www.bps.go.id/pressrelease/2020/11/05/1673/agustus-2020--tingkat-pengangguran-terbuka--tpt--sebesar-7-07-persen.html
- Bashir, A., Bashir, S., Rana, K., Lambert, P., & Vernallis, A. (2021). Post-COVID-19 Adaptations; the Shifts Towards Online Learning, Hybrid Course Delivery and the Implications for Biosciences Courses in the Higher Education Setting. *Frontiers in Education*, 6(August), 1– 13. https://doi.org/10.3389/feduc.2021.711619
- Coman, C., Ţîru, L. G., Meseşan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students' Perspective. *Sustainability*, *12*(24), 10367. https://doi.org/10.3390/su122410367
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). SAGE Publications, Inc.
- Darling-Hammond, L., Schachner, A., & Edgerton, A. K. (2020). *Restarting and Reinventing School: Learning in the Time of COVID and Beyond Priority 4: Ensure Supports for Social and Emotional Learning* (Issue August). http://learningpolicyinstitute.org/product/restartingreinventing-school-covid.
- Darmody, M., Smyth, E., & Russell, H. (2020). The implications of the COVID-19 pandemic for policy in relation to children and young people: a research review. In *ESRI Survey and Statistical Report Series* (Issue 94). https://doi.org/10.26504/sustat94
- ECLAC, & UNESCO. (2020). *Education in the time of COVID-19: Vol. August.* https://repositorio.cepal.org/bitstream/handle/11362/45905/1/S2000509_en.pdf
- Efriana, L. (2021). Problems of Online Learning during Covid-19 Pandemic in EFL Classroom and the Solution. *JELITA: Journal of English Language Teaching and Literature*, 2(1), 2721–1916. https://jurnal.stkipmb.ac.id/index.php/jelita/article/view/74
- Emanuel, E. J., Persad, G., Upshur, R., Thome, B., Parker, M., Glickman, A., Zhang, C., Boyle, C., Smith, M., & Phillips, J. P. (2020). Fair Allocation of Scarce Medical Resources in the Time of Covid-19. *New England Journal of Medicine*, 382(21), 2049–2055. https://doi.org/10.1056/NEJMsb2005114

- Engzell, P., Frey, A., & Verhagen, M. D. (2021). Learning loss due to school closures during the COVID-19 pandemic. *Proceedings of the National Academy of Sciences*, 118(17), 1–100. https://doi.org/10.1073/pnas.2022376118
- Fazirah, M. (2021). Hubungan Antara Konsep Diri Dengan Kecemasan Mahasiswa Menghadapi Dunia Kerja Pada Masa Pademi Covid-19. In D. Wijayanti (Ed.), KONSTELASI ILMIAH MAHASISWA UNISSULA (KIMU) 5 (Vol. 1, Issue 1, pp. 71–76). Universitas Islam Sultan Agung. http://jurnal.unissula.ac.id/index.php/kimuhum/article/view/17607
- Fenton, L., Gribben, C., Caldwell, D., Colville, S., Bishop, J., Reid, M., White, J., Campbell, M., Hutchinson, S., Robertson, C., Colhoun, H. M., Wood, R., McKeigue, P. M., & McAllister, D. A. (2021). Risk of hospital admission with covid-19 among teachers compared with healthcare workers and other adults of working age in Scotland, March 2020 to July 2021: population based case-control study. *BMJ*, *374*(July), n2060. https://doi.org/10.1136/bmj.n2060
- Fruehwirth, J. C., Biswas, S., & Perreira, K. M. (2021). The Covid-19 pandemic and mental health of first-year college students: Examining the effect of Covid-19 stressors using longitudinal data. *PLOS ONE*, *16*(3), e0247999. https://doi.org/10.1371/journal.pone.0247999
- Gamalliel, N., Saminarsih, D., & Taher, A. (2021). Indonesia's second wave crisis: medical doctors' political role is needed more than ever. *The Lancet*, 398(10303), 839–840. https://doi.org/10.1016/S0140-6736(21)01807-9
- Godber, K. A., & Atkins, D. R. (2021). COVID-19 Impacts on Teaching and Learning: A Collaborative Autoethnography by Two Higher Education Lecturers. *Frontiers in Education*, 6. https://doi.org/10.3389/feduc.2021.647524
- Gustiani, S. (2020). Students ' Motivation in Online Learning During Covid-19 Pandemic Era : a Case Study. *Holistics Journal*, *12*(2), 23–40. https://jurnal.polsri.ac.id/index.php/holistic/article/view/3029
- Harjudanti, P. (2021). The Impact of Online Learning on the Learning Motivation of Junior High School Students. *EduTeach : Jurnal Edukasi Dan Teknologi Pembelajaran*, 2(2), 32–41. https://doi.org/10.37859/eduteach.v2i2.2487
- Hasan, N., & Bao, Y. (2020). Impact of "e-Learning crack-up" perception on psychological distress among college students during COVID-19 pandemic: A mediating role of "fear of academic year loss." *Children and Youth Services Review*, 118(January), 105355. https://doi.org/10.1016/j.childyouth.2020.105355
- Hastuti, K. P., Angriani, P., Alviawati, E., & Arisanty, D. (2021). The perspective of geography education students on the implementation of online learning during covid-19 pandemic. *IOP Conference Series: Earth and Environmental Science*, 747(1), 012012. https://doi.org/10.1088/1755-1315/747/1/012012
- Hasudungan, A. N., Ofianto, & Ningsih, T. Z. (2022). Learning Loss: A Real Threat in Education for Underprivileged Students and Remote Regions during the Covid-19 Pandemic. *International Journal of Distance Education and E-Learning*, 7(1), 12–23. https://doi.org/10.36261/ijdeel.v7i1.2223
- Ikhwan, E. J. Q., & Andriyanti, E. (2021). Students' Motivation to Acquire English through Virtual Learning Midst Covid-19 Pandemic. *Lingua Cultura*, *15*(1), 11–20. https://doi.org/10.21512/lc.v15i1.6839
- kalderanews.com. (2021, February 8). Hadapi Ancaman Learning Loss, Begini Strategi Program S2 SGU. *Www.Kalderanews.Com*, 1. https://www.kalderanews.com/2021/02/hadapi-ancaman-learning-loss-begini-strategi-program-s2-sgu/

- Khalil, R., Mansour, A. E., Fadda, W. A., Almisnid, K., Aldamegh, M., Al-Nafeesah, A., Alkhalifah, A., & Al-Wutayd, O. (2020). The sudden transition to synchronized online learning during the COVID-19 pandemic in Saudi Arabia: a qualitative study exploring medical students' perspectives. *BMC Medical Education*, 20(1), 285. https://doi.org/10.1186/s12909-020-02208-z
- Kim, K.-J., & Frick, T. W. (2011). Changes in Student Motivation During Online Learning. Journal of Educational Computing Research, 44(1), 1–23. https://doi.org/10.2190/EC.44.1.a
- Koob, C., Schröpfer, K., Coenen, M., Kus, S., & Schmidt, N. (2021). Factors influencing study engagement during the COVID-19 pandemic: A cross-sectional study among health and social professions students. *PLOS ONE*, 16(7), e0255191. https://doi.org/10.1371/journal.pone.0255191
- Lockee, B. B. (2021). Online education in the post-COVID era. *Nature Electronics*, 4(1), 5–6. https://doi.org/10.1038/s41928-020-00534-0
- LPM Perspektif. (2021, October 30). Ancaman Learning Loss, Ketersediaan Fasilitas, hingga Akses Mahasiswa Difabel. *Lpmperspektif.Com*, 1. https://lpmperspektif.com/2021/10/30/ancaman-learning-loss-ketersediaan-fasilitas-hinggaakses-mahasiswa-difabel/
- Meşe, E., & Sevilen, Ç. (2021). Factors influencing EFL students' motivation in online learning: A qualitative case study. *Journal of Educational Technology & Online Learning*, 4(1), 11–22. http://dergipark.org.tr/jetolDoi:http://doi.org/10.31681/jetol.817680
- Middleton, K. V. (2020). The Longer-Term Impact of COVID-19 on K-12 Student Learning and Assessment. *Educational Measurement: Issues and Practice*, 39(3), 41-44. https://doi.org/10.1111/emip.12368
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook,* 2nd Edition (2nd ed.). Sage Publications.
- Miller, E. C., Reigh, E., Berland, L., & Krajcik, J. (2021). Supporting Equity in Virtual Science Instruction Through Project-Based Learning: Opportunities and Challenges in the Era of COVID-19. Journal of Science Teacher Education, 32(6), 642–663. https://doi.org/10.1080/1046560X.2021.1873549
- Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, *1*, 100012. https://doi.org/10.1016/j.ijedro.2020.100012
- Muhlisin, A., Sarwanti, S., Jalunggono, G., Yusliwidaka, A., Mazid, S., & Mohtar, L. E. (2022). Improving students' problem-solving skills through RIAS model in science classes. *Cakrawala Pendidikan*, 41(1), 284–294. https://doi.org/10.21831/cp.v41i1.47263
- Muhyiddin, M., & Nugroho, H. (2021). A Year of Covid-19: A Long Road to Recovery and Acceleration of Indonesia's Development. Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning, 5(1), 1–19. https://doi.org/10.36574/jpp.v5i1.181
- Nitiasih, P. K., Budiarta, L. G. R., Adnyayanti, N. L. P. E., & Erinaryani, N. N. (2021). Dealing with Project Based Learning during COVID-19: Teacher's Perception Using Educational Video as ELT Media. *Language Circle: Journal of Language and Literature*, 16(1), 118– 124. https://doi.org/10.15294/lc.v16i1.30209
- Noviantari, I., & Faridhoh, F. (2021). Analisis Learning Loss Kemampuan Literasi Statistis Mahasiswa. *Jurnal Pendidikan Matematika Raflesia*, 6(3), 112–120. https://doi.org/https://doi.org/10.33449/jpmr.v6i3.19104

- Nurjanah, W., Musadad, A. A., & Purwanta, H. (2021). Implementation of distance history learning during the Pandemic Covid-19. *International Journal for Educational and Vocational Studies*, *3*(4), 243. https://doi.org/10.29103/ijevs.v3i4.3926
- Pasani, C. F., Amelia, R., & Hassan, Z. (2021). Learning loss and education inequality in Indonesia (Mapping the potential, consequences, and the Covid-19 crisis). *Review of International Geographical Education (RIGEO)*, 11(10), 1171–1181. https://rigeo.org/submit-amenuscript/index.php/submission/article/view/2988
- Pelikan, E. R., Korlat, S., Reiter, J., Holzer, J., Mayerhofer, M., Schober, B., Spiel, C., Hamzallari, O., Uka, A., Chen, J., Välimäki, M., Puharić, Z., Anusionwu, K. E., Okocha, A. N., Zabrodskaja, A., Salmela-Aro, K., Käser, U., Schultze-Krumbholz, A., Wachs, S., ... Lüftenegger, M. (2021). Distance learning in higher education during COVID-19: The role of basic psychological needs and intrinsic motivation for persistence and procrastination–a multi-country study. *PLOS ONE*, *16*(10), e0257346. https://doi.org/10.1371/journal.pone.0257346
- Pokhrel, S., & Chhetri, R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning. *Higher Education for the Future*, 8(1), 133–141. https://doi.org/10.1177/2347631120983481
- Putri, J. P. A., Larasati, N., Rara P, I. L., Muaddib, F., Kresna SL, & M. Raul. (2021). MANAJEMEN RESIKO SEKTOR PUBLIK KEBIJAKAN PERGURUAN TINGGI DI MASA PANDEMI. https://publik.untag-sby.ac.id/berita-126-manajemen-resiko-sektor-publikkebijakan-perguruan-tinggi-di-masa-pandemi.html
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online University Teaching During and After the Covid-19 Crisis: Refocusing Teacher Presence and Learning Activity. *Postdigital Science and Education*, 2(3), 923–945. https://doi.org/10.1007/s42438-020-00155-y
- Setiawan, W. V., Fattah, A. M., & Puspitaningrum, A. (2019). The Challenges of Student in Indonesia after College Graduates with Career Choice Start: Evidence from Ten Private Universities in Jakarta. *The Winners*, 20(2), 61. https://doi.org/10.21512/tw.v20i2.5674
- Singh, J., Steele, K., & Singh, L. (2021). Combining the Best of Online and Face-to-Face Learning: Hybrid and Blended Learning Approach for COVID-19, Post Vaccine, & amp; Post-Pandemic World. *Journal of Educational Technology Systems*, 50(2), 140–171. https://doi.org/10.1177/00472395211047865
- Stake, R. E. (1995). The art of case study research. Sage Publications, Inc.
- Stringer, N., & Keys, E. (2020). Learning during the pandemic: review of international research Report 5 of 5 on learning during the 2020 coronavirus (COVID-19) pandemic. In *Ofqual*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_dat a/file/1000352/6803-5_Learning_during_the_pandemicreview of international research.pdf
- Sugiyono. (2017). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. CV. Alfabeta.
- Sulistyowati, Y., Febriantina, S., & Faslah, R. (2021). The Influence of Learning Culture and Student Personality Characteristics on Learning Satisfaction through Online Learning Readiness as a Mediation Variable for Students of the Faculty of Economics, State University of Jakarta. Jurnal Pendidikan Ekonomi, Perkantoran, Dan Akuntansi - JPEPA, 2(3), 379– 391. http://pub.unj.ac.id/index.php/jpepa/article/view/308
- Towaf, S. M. (2017). The National Heritage Of Ki Hadjar Dewantara In Taman Siswa About Culture-Based Education And Learning. *KnE Social Sciences*, 1(3), 455.

https://doi.org/10.18502/kss.v1i3.768

- Widayanti, N. K. A., & Suarnajaya, I. W. (2021). Students Challenges in Learning English Online Classes. Jurnal Pendidikan Bahasa Inggris Undiksha, 9(1), 77. https://doi.org/10.23887/jpbi.v9i1.34465
- World Education News & Reviews. (2019, March 21). Education in Indonesia. *Wenr.Wes.Org*, 1. https://wenr.wes.org/2019/03/education-in-indonesia-2
- Zaccoletti, S., Camacho, A., Correia, N., Aguiar, C., Mason, L., Alves, R. A., & Daniel, J. R. (2020). Parents' Perceptions of Student Academic Motivation During the COVID-19 Lockdown: A Cross-Country Comparison. *Frontiers in Psychology*, 11(December), 1–13. https://doi.org/10.3389/fpsyg.2020.592670