

Obstacles for biology education students in the process of implementing online learning at Labuhanbatu University during the COVID-19 pandemic

Adek Tiya Pratiwi, Risma Delima Harahap *

Study Program of Biology Education, Faculty of Teacher Training and Education, Universitas Labuhanbatu, Rantauprapat, North Sumatera, Indonesia

*Corresponding Author Email: rismadelimaharahap@gmail.com

Article Information	Abstract
Keyword: Obstacles; Students; Online learning process; Implementation; COVID-19 pandemic Kata Kunci: Hambatan; Mahasiswa; Proses pembelajaran online; implementasi; Pandemi COVID-19 History: Received : 12/11/2021 Accepted : 13/01/2022	The aim of this research is to identify and analyze the obstacles that biology education students at Labuhanbatu University face when implementing online learning during the COVID-19 pandemic. This study employs a descriptive method in conjunction with a qualitative approach. The approach taken is one of survey. This study collected data using data triangulation techniques. The respondents were 92 students enrolled in the Labuhanbatu University biology education study program throughout the academic years 2018/2019; 2019/2020; and 2020/2021. The online learning process is implemented in the following indicators: readiness and implementation in online learning is 87.21%, (physical, psychological) health in online learning is 76.59%, the obstacles faced by the students during online learning process is 72.06%, internet access facilities (quotas) and learning tools in online learning is 79.89%, lecturer services and delivery of materials in online learning is 77.60%, motivation and comprehension of course material development in online learning is 68.76%. Learning motivation and understanding obstacles encountered by biology education students throughout the implementation process might render online learning ineffective, resulting in this research is planned to serve as a benchmark for future improvements in the process of integrating online learning. Abstrak Tujuan dari penelitian ini adalah Untuk mengetahui dan menganalisis hambatan apa saja yang dihadapi mahasiswa pendidikan biologi Universitas Labuhanbatu dalam pelaksanaan proses pembelajaran daring di masa pandemi COVID-19. Penelitian ini menggunakan pendekatan kualitatif dengan metode deskriptif. Pendekatan yang digunakan adalah pendekatan survey. Teknik pengumpulan data dalam penelitian ini menggunakan teknik triangulasi data, Responden adalah mahasiswa program studi pendidikan biologi Universitas Labuhanbatu angkatan tahun akademik 2018/2019; 2019/2020; 2020/2021, dengan jumlah total sebanyak 92 orang. Hasil penelitian ini menunjukkan beberapa hambatan mahasiswa dalam pelaksanaan proses pembelajaran daring diantaranya yaitu : Kesiapan dan pelaksanaan dalam pembelajaran daring 87,21%, Kesehatan (fisik, psikis) dalam pembelajaran daring 76,59%, Hambatan yang dialami mahasiswa selama proses pembelajaran daring 72,06%, Fasilitas akses internet (kuota) dan perangkat pembelajaran dalam pembelajaran daring 79,89%, Pelayanan dosen dan penyampaian materi dalam pembelajaran daring 77,60%, Motivasi pembelajaran dan memahami materi perkuliahan dalam pembelajaran daring 68,76%, Hambatan yang dialami oleh para mahasiswa pendidikan biologi dalam pelaksanaan proses pembelajaran daring akan membuat pembelajaran daring menjadi tidak maksimal, sehingga penelitian ini diharapkan menjadi evaluasi sebagai acuan perbaikan didalam proses pelaksanaan pembelajaran daring menjadi baik kedepannya.

A. Introduction

The COVID-19 pandemic that has ravaged Indonesia and other countries has posed difficulties for educational institutions. As intended by the government, through the Ministry of Education and Culture, the government restricts offline learning at all levels of education and mandates online learning (Fikri et al., 2021). The world has been horrified again again by the spread of the hazardous and dangerous COVID-19 virus since the year 2020 began. It is referred to as the COVID-19 virus. Since the COVID-19 virus's appearance in Wuhan City, the capital of Hubei Province in China. The COVID-19 virus was first reported to the World Health Organization (WHO) on December 31, 2019 (Puspitorini, 2020).

The COVID-19 virus infection has spread to various areas around the world, altering many elements of human existence. This is a shift in the way learning is implemented in universities, particularly at Labuhanbatu University. Rather than offline education instruction, online education instruction is used. There are obstacles to biology learning for students enrolled in the Labuhanbatu University biology education study program as a result of the ongoing online learning implementation; in this case, students are required to complete the lecture learning process online in order to break the sequence of the COVID-19 virus's expansion (Supriyatin, 2022).

The COVID-19 virus pandemic has altered multiple elements of the world of education, requiring all participants to adjust and continue the semester's learning process (Herliandry et al., 2020). During the COVID-19 pandemic, it had a number of significant consequences on the field, including education and one of the courses whose implementation method must also be converted to online learning, biology learning is just one of them (Ita, 2020). The aim of this study is to identify and analyze the obstacles that biology education students face when using an online learning system at Labuhanbatu University during the COVID-19 pandemic.

B. Material and Method

This study uses a qualitative approach using descriptive methods. Qualitative data according to Miles and Huberman is the source of an extensive and well-grounded description, and contains an explanation of the processes that occur in the local environment. Data collection techniques in this study using data triangulation techniques. According to (Sugiyono 2014) triangulation is a data collection technique combining various data collection techniques and existing sources, in this study the

data were collected by interviews and questionnaires. Questionnaire is an online data collection in the form of a google form that contains several statements that must be answered by the respondent. Respondents were students of the biology education study program at Labuhanbatu University for the academic year 2018/2019:2019/2020;2020/2021, with a total of 92 students and 10 students were taken for interviews to represent each batch of biology education students. distributed to respondents via google from which was sent via whatsapp group messages. The data analysis technique in this study used a questionnaire with a Likert Scale model that used 5 choices consisting of: Strongly agree (SS), Agree (S), Doubtful (RG), Disagree (TS), Strongly disagree (STS). The Likert scale is used to measure attitudes, opinions and perceptions of a person or group of people about social phenomena, in research, this social phenomenon has been specifically defined by researchers, hereinafter referred to as research variables (Sugiyono, 2014). The components in the questionnaire consist of the respondent's identity and a statement consisting of 36 statements from 6 indicators to identify student obstacles in the process of implementing online learning during the COVID-19 pandemic. Then the data collected from the questionnaire is analyzed and then described.

C. Results and Discussion

Interviews and questionnaires have been used to gather data on the obstacles faced by biology education students when implementing the online learning process during the COVID-19 pandemic. Interview data are replies and responses from students who are interviewed, and then the data are reported, whereas questionnaire data are responses provided by respondents to questionnaires issued using google forms. The respondents in this study were students enrolled in Labuhanbatu University Biology Education Study Program during the academic years 2018/2019, 2019/2020, and 2020/2021, amounting 92 students, including 24 third semester students from the 2018/2019 class, 36 5th semester students from the 2019/2020 class, and 32 7th semester students from the 2020/2021 class. Respondents were given 6 indicators and whittled down to 36 statements that were meant to identify the obstacles they encountered while implementing the online learning process during the COVID-19 pandemic. The following are the results from a study on the obstacles that biology education students face while using an online learning system.

Table 1 The results of the Questionnaire on Biology Education Student Obstacles to Implementing the Online Learning Process During the COVID-19 Pandemic:

No	Student Obstacle Indicator	%
1.	Readiness and implementation in online learning	87.21
2.	(physical, psychological) Health in online learning	76.59
3.	Obstacles faced by the students during online learning process	72.06
4.	Internet access facilities (quotas) and learning tools in online learning	79.89
5.	Lecturer services and delivery of materials in online learning	77.60
6.	Motivation and comprehension of course material development in online learning	68.76

Based on the data above, the indicator of readiness and implementation in online learning is 87.21%. The indicator of (physical, psychological) health in online learning is 76.59%. The indicator of obstacles faced by the students during online learning process is 72.06%. The indicator of internet access

facilities (quotas) and learning tools in online learning is 79.89%. The indicator of lecturer services and delivery of materials in online learning is 77.60%. The indicator of motivation and comprehension of course material development in online learning is 68.76%.

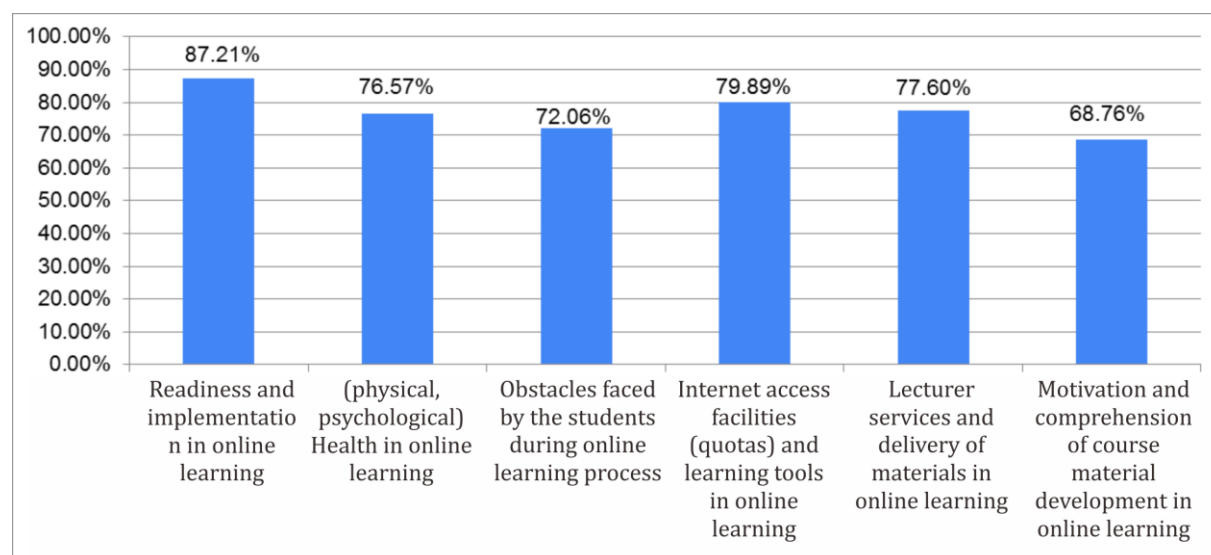


Figure 1 The obstacle diagram for biology education students

In light of the interview's results, "That each student who conducts online learning must make advance preparations in the form of internet packages prior to conducting online learning, as well as matters linked to the implementation of online learning. Then students must constantly monitor information from their cellphones to determine the effectiveness of learning, as well as the cost of internet packages and the location of a network that is smooth and reliable, as well as the preparation of application devices that support the implementation of the online learning process". And this is also corroborated by questionnaire data indicating that around 87.21% of students face obstacles. According to (Noviansyah & Mujiono, 2021) There are obstacles for students in terms of readiness and implementation in online learning, but students

are generally capable of following the process of implementing online learning. However, there are still obstacles that can reduce student activity in learning and thus affect success in implementing online learning. The readiness of the online learning process to be implemented is one of the criteria that affect success in accomplishing an educational goal. Student ready factors should be concentrated on components of time management during the execution of the online learning process (Jamal, 2020).

Afterward, based on interviews, the indicator of (Physical and Psychic) Health Obstacles in Online Learning are as follows: "While every student must maintain physical health during the online learning learning process, there are some students who do not do so due to fatigue from completing assignments.

Additionally, there are students who experience a decrease in concentration during the learning process, as well as students who experience eye irritation." online and some students also struggle to maintain emotional stability, as seen by 76.59% of questionnaire answers. According to (Simbolon, 2021) physical and psychological problems that become one of the obstacles in the process of implementing online learning when this unsupportive physical condition is one of the conditions of student vision. This condition is often a complaint for students when they linger in front of an android or laptop, especially if there are additional tasks given by the lecturer. While other conditions are still supportive, such as physical conditions, namely hearing, body and muscle fitness and endurance. Then the most important obstacle to pay attention to is psychological obstacles, in this case students are still difficult to understand and master the learning material. According to a study conducted by (Susanto & Azwar, 2020), The level of stress generated by an excessive variety of tasks combined with the needs of a quick collection time, students' inadequate comprehension of the content gathered, and stress caused by the expectations on students' capacity to complete learning assignments. According to student interviews, they felt dizzy and had heated eyes during online learning because they spent so much time in front of the computer and also because the numerous assignments and deadlines made them feel stressed and finally made them sick. However, other individuals confess that they do not suffer from health problems when at home since they receive appropriate nutrition and can rest properly (Hariyanti et al., 2020). Furthermore, based on interviews, the indicator of obstacles faced by the students during the online learning process are as follows: "That every student encounters internet connection problems and abruptly exits the Zoom and Google Meet applications during the online learning process, and some students tend to attend only for attendance." Due to disruptions in the internet network connection during the implementation of the online learning process, some students experienced missing information when beginning the implementation of online learning via Zoom or Google Meet, and students also encountered difficulties understanding the material during online recovery learning. Applications that aid in the learning process, as well as the use of interactive media and teaching materials,

contribute to students' inability to comprehend the material presented. This is typically due to insufficient network access; if the network does not have adequate access, it will affect the learning conducted, rendering it ineffective (Rahma & Safarati, 2021). As well as difficulties in interacting with lecturers and friends when they want to ask for learning materials that are not understood, and students experience obstacles in working on online learning assignments with a set time (deadline). This is also supported by questionnaire data of around 72.06%, that some of the students experienced obstacles during the online learning process, these obstacles were in the form of inadequate internet quota, unstable internet network, piling tasks, lack of understanding of the material, and lack of motivation and study (Amalia et al., 2020).

On the indicator of obstacles to internet access facilities (quotas) and learning tools in online learning based on interviews, namely "students receive internet quota assistance in the process of implementing online learning so that it is possible to carry out online learning, but there are some students who do not receive internet quota assistance so they buy Internet packages are very expensive in order to be able to carry out online learning The use of large amounts of data during online lectures causes students to spend quite a lot of money to buy data quota packages. This is the main obstacle that has been felt by students, including spending a lot of quota (Hidayah, 2020), and facing difficulties connecting to the internet when in a location without a signal to conduct the online learning activity. (Hasanah et al., 2020) asserts that Online learning has its own set of obstacles. One of them is the internet network's availability. Some students admitted that it was difficult to conduct online learning because not everyone had access to an internet network, and in this study, students also encountered difficulties accessing the internet when the lights went out, making online learning impossible to conduct. Students also encountered difficulties accessing the internet when the weather was not conducive to conducting online learning, experiencing an unstable internet network while using the device during the online learning. Facilities are critical for the efficient implementation of learning, such as laptops, computers, or smartphones that support online learning (Purwanto et al., 2020). Along with quotas and internet access, the majority of students stated

that the most significant difficulty they encountered was a lack of quotas and internet access, since these were critical components of the online learning process. All respondents stated that when online learning occurred, a significant number of them ran out of internet quota and internet access was difficult due to network disruptions, which resulted in students being late to class, having difficulty downloading materials, and submitting assignments that always failed or were counted late (Hariyanti et al., 2020). When it emerges to online lectures. This is obvious from the respondents' responses, the majority of them claimed that they had a reliable internet connection and digital devices that enable it. Additionally, respondents are regarded to have appropriate capabilities in terms of using digital gadgets. This is evident in the responses of the majority of respondents, who indicated that they were familiar with gadgets, had a strong understanding of how to use digital devices, and possessed a strong capacity to utilize digital devices (Nastiti & Hayati, 2020). Unstable network, the students own a standard quota despite the fact that the distribution is limited electronic gadgets that are incapable of supporting a high number of students who come from remote places complicate the implementation of online learning (Akhmad, 2021). The majority of students tend to encounter restrictions on their ability to use internet usage. Obviously, the lecturers must take this restricted resource into account while conducting online learning (Gaffar & Surjani, 2021).

On the indicators of lecturer service and delivery of material in online learning based on interviews and supported by questionnaire data, namely "In the implementation of the online learning process the lecturer gives online assignments to evaluate students' abilities after explaining the material online, and the lecturer also enters according to schedule, and the lecturer always pay attention to student complaints during online lectures, lecturers deliver material that is too short in explaining lecture material online, lecturers provide opportunities for students to ask questions in delivering material, lecturers provide online learning facilities and methods, where there are obstacles to indicators of lecturer service obstacles and delivery of material in online learning from the results of interviews and this is supported by questionnaire data in the form of 77.60% and some of the students also do not

experience obstacles in interacting with lecturers and students' understanding nature of the explanation of the delivery of the material given by the lecturers

On indicators of learning motivation and comprehension of course material development in online learning, based on interview results and questionnaire data, namely "that students are extremely enthusiastic when (entering course material) online learning because some students state that they enter courses when implementing online learning is one of the obligations in lectures, even though it is online, because the students perceived that learning is a responsibility as a student.". Related to (Hutauruk & Sidabutar, n.d.) That many students report that online learning makes it more difficult to understand a subject matter than offline learning, resulting in a lack of opportunities for direct and open discussions with their lecturers, as well as the results of interviews and questionnaires indicating that some students easily give up on assignments or homework assigned by the lecturer due to a lack of understanding of the material, and some students report that they are unable to complete assignments or homework assigned by the lecturer due to a lack of understanding. It leads in a sensation of saturation when the lecturer delivers a topic monotonously and does not explain it at all, making it impossible for the students to absorb the information on their own and making them lazy and bored (Ruci, 2020). According to the results of interviews and questionnaires, some students are interested in delivering material online because they are familiar with online learning methods, but others are unmotivated in delivering material because they struggle to convey ideas and statements online and have difficulty understanding the material. What the lecturers taught, several students stated that they did not understand the online content. Although online learning was successful in transforming the way people learned during the COVID-19 pandemic, several obstacles were encountered during the learning process. This indicates that online learning is not yet ready for implementation (Akhmad, 2021). From the results of research using interviews and supported by questionnaires that indicators on obstacles to learning motivation and understanding lecture material in online learning that some of the students experience obstacles such as in the results of interviews

and supported by questionnaire data in the form of 68.76% students experience obstacles to indicators of learning motivation and understanding lecture material in online learning. Some of the students admitted that they experienced obstacles in intrinsic motivation in implementing online learning because some students were lazy, bored, couldn't manage time, lost concentration, and lacked interaction, unlike face-to-face lectures so they felt more relaxed. constrained by extrinsic motivation such as being disturbed by homework, an unfavorable home environment such as noisy, difficult signals, constrained by device needs, and constrained by monotonous and boring online learning, students claim not to lose motivation when carrying out online learning on the grounds that the motivation within themselves that is strong to learn and there are also students who are motivated by the hard work of their parents which makes them more enthusiastic about learning (Khasanah et al., 2020).

D. Conclusion

The study's results show that readiness and implementation in learning are both 87.21%. 76.59% for (physical, psychological) health, 72.06% for online learning. Internet access (quota) and educational tools about 79.89%, 77.60% for use lecturer services and material delivery. Motivation and comprehension of course material development in online learning are both 68.76%.

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