ANALYSIS OF ONLINE LEARNING DIFFICULTIES IN BIOLOGY LEARNING AT SENIOR HIGH SCHOOL

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Abstract: Research on online learning difficulties during the COVID-19 pandemic has been carried out. The aim is to describe the process and learning difficulties while online learning. This research is descriptive and qualitative. Sampling is done in three ways: interviews, questionnaires, and documentation. The data obtained is reduced, presented, reviewed, and then conclusions are drawn. As a result, the difficulties experienced by students during the process of learning online, namely the difficulty in using WhatsApp and chat group entry, make students unable to focus on learning, difficulties in the form of signals, and learning disabilities-line is a difficulty that is often experienced, learning is difficult because of signal constraints and wasteful internet quota. In conclusion, online learning difficulties are the inability of students to use learning applications such as What tApp, Google Classroom, Google Meet, and Zoom meetings. Some factors that make learning difficult are constrained by unstable signals and a lack of communication between students and teachers.

INTRODUCTION

PandemicCovid-19 is the biggest epidemic that has attacked the world, and one of them is Indonesia. PandemicCovid-19 is an infectious disease that usually affects animals [1-3]. When this virus attacks humans, it will cause disease, especially in the respiratory system. When viewed from the number of people infected with Covid-19, on 15 June 2020, Indonesia reported 39,294 positive cases, ranking second in Southeast Asia after Singapore [4-6]. One of the efforts to prevent transmission is with learning policies online or in the network. Learning online is learning facilitated and utilizing an information and communication technology applied to the field of education aimed at creating a transformation of the learning process in schools in digital form bridged by internet technology. In the learning process online, learning platforms will vary depending on the effectiveness of students in receiving lessons. Learning online usually uses more interesting software/applications, such as video conferencing, Google Classroom, youtube, and Google Forms.

Difficulty learning is the inability of students to accept learning; the difficulties experienced by students during the learning process-line are that students need to be used to learning online, so

An interview, in simple terms, is an event or a process of interaction between the interviewer (interviewer) with information sources or people who interview through direct communication [10].

Questionnaire

Questionnaires are data collection that will focus on questions for respondents in writing. The data collection technique is through giving questions in a questionnaire with open or closed. Therefore, it students have difficulty following the stages of learning activities and need adequate facilities.

Various factors influence the unachieved learning objectives that are measurable in learning success: student capacity, teacher/lecturer quality, learning environment quality, and learning process quality. The two most dominant factors influencing the success of learning are; student capacity, teacher quality, and quality of the learning process [7-8].

Based on the description above, studying the analysis of student learning difficulties at school is necessary. Knowing learning difficulties can make it easier for educators to find the right solution for students. Student knowledge must be maintained so that the pandemic does not make students lose knowledge.

RESEARCH METHODS

This study used a qualitative approach with a descriptive research type.

Method of collecting data

Data collection techniques are very important in research because the main goal is to obtain data representation [9].

Interview

is hoped that the respondent's description or brief answer will follow the questions prepared.

Documentation

Documentation techniques are techniques used to find data about things or variables in the form of notes, transcripts, books, magazines, and so on [11].

Data analysis
1. Reduction data
    Data reduction means summarizing, choosing the main things, focusing on the important things, and looking for themes and patterns. Thus the data to be reduced provides a clearer picture and makes it easier for researchers to carry out further data collection and look for it when needed [12].
2. Data presentation
Process presentation of data that is to reveal as a whole from a group of data obtained so that it is easy to read and understand. The presentation of data that is most often used in qualitative research is with narrative text. Presentation of data in this study is presented in the form of a descriptive narrative.
3. Conclusion And Verification
This research must conclude and verify it. It means that the data is presented as a conclusion in the form of a descriptive description, which, of course, is also equipped with supporting data for the perfection of the research results. Data verification is carried out if the initial conclusions found are still temporary,

RESULTS AND DISCUSSION
Validity test
    A validity test is used to determine a questionnaire instrument that is used as a tool to retrieve data. A valid questionnaire means that it is good to use as a tool to retrieve data; the analysis of the validity of the questionnaire items is carried out using a formula product moment. If $r_{xy} > r$ table, then the item is said to be valid. Based on the test results validity, the items from the questionnaire consisted of 25 questionnaire items which were tested on 25 students so that N = 25 with a value of r table based on product moment, i.e., r_{table}= 0.396, then the results of a valid questionnaire item consist of 15 questions and ten questions that are invalid.

Reliability Test
    Questionnaire reliability analysis used a different formula. The reliability test results for the questionnaire use the formula alpha Cronbach, test reliability using the help of the SPSS 16.0 program. Data for test reliability was taken from the previous validity test. The number of items in the questionnaire tested for reliability was 15. Based on the reliability analysis results obtained from the output table of the reliability test of the questionnaire items, it can be seen that the value Cronbach's alpha or $r_{ecount} \geq r_{table}$, namely $0.885 \geq 0.514$, so that out of 15 questions, it was declared reliable.

Online Learning process
1. Learning planning
    The steps taken at the planning stage (design) are making preliminary plans and applying learning planning based online by utilizing the internet network.

2. Learning process
    The learning process or core activity usually uses a platform like Google Forms and learning videos uploaded to Youtube. Students are asked to access learning videos independently and then listen to them.

3. Evaluation
    The assessment includes several components, including student activities while learning online, grades of assignments, and midterm and final exams.

4. Difficulty learning
    Difficulty learning online students can be measured using a questionnaire sheet using a Likert scale of 1-5.

Table 1. Questionnaire statement score qualifications Skala Likert

Answer Choices	Score
Strongly agree	Score 5
Agree	Score 4
Doubt	Score 3
Don't agree	Score 2
Strongly disagree	Score 1

    Data analysis in the questionnaire method was carried out by describing qualitative data from the percentage of each alternative answer already available on the questionnaire sheet.
The respondent analysis questionnaire is calculated using the following formula:

$$A = \frac{n}{N} \text{ X } 100$$

Information:
 P = rating percentage (%)
 n = total score obtained
 N = total maximum score

Based on the calculation of the percentage of the results of the questionnaire for online learning difficulties as follows:
Based on the calculation of the percentage of the results of the questionnaire on learning difficulties online as follows:

Table 2. Level of student learning difficulties (%)

Criteria Mark	Percentage (%)	Category
5	81 - 100 %	Strongly agree
4	61 - 80%	Agree
3	41 - 60	Doubts
2	21 - 40%	Don't agree
1	0 - 20%	Strongly Disagree

Table 2 shows the average level of student learning difficulties percentage students are at a value of 70 which is between percentage 61 – 80%, which is in the agreed category. So most students agree that during the process or implementation of learning online, student experience difficulty. Percentage comparison of students' responses to the difficulties experienced during the learning process online, based on alternative answers, can be described in the following figure:
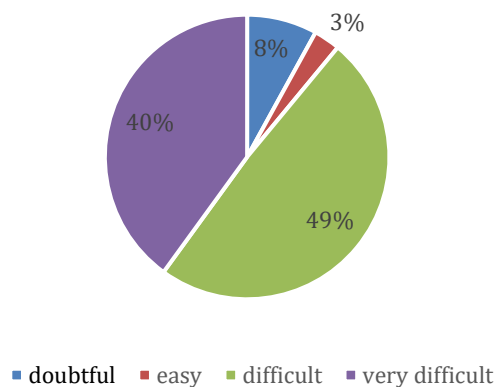

Figure 1. Percentage of Student Responses Based on Alternative Answers

Based on Figure 1 above, it can be seen that most of the student responses stated that during the learning process line, students experienced learning difficulties with the highest percentage of 49%, and 40% of students said it was difficult, 8% said they were unsure, 3% said it was not difficult, and 0% said it was not very difficult or students did not experience difficulties when learning online.

The learning process is carried out in 3 stages: learning planning, learning process, and evaluation. Planning can be interpreted as preparing subject matter, using teaching media, using teaching approaches and methods, and assessing an allocation of time that will be carried out at a certain time to achieve a predetermined goal. [13]

The core activity is the stage of giving material and assignments by the teacher to students. The material the teacher delivers is usually in the form of a learning video uploaded by toYoutube, and a link will be sent through the group WhatsApp.Learning online is learning that the learning process uses multimedia technology, class virtual, videos, online text animation, email, voicemail, conference calling, and video streaming online [14]. During the learning process, the teacher will give students time to watch videos uploaded on YouTube. This study contains material in the form of PowerPoint. Use deep video learning.

Powerpoint form could be more precise, and video learning is made as if the teacher is explaining the material more effectively than providing learning materials with a video, which is just a PowerPoint. Level evaluation of the implementation of the learning process online includes all components of learning, starting from planning the learning program and during the implementation process. The assessment includes several components, including student activities while learning online, grades of assignments, and midterm and final exams. Evaluation of learning is done by giving written assignments in the form of questions essays and multiple-choice questions essays to assess aspects of skills, multiple choice questions to assess aspects of knowledge, and multiple-choice questions in the form of quizzes done at the end of the activity. Process evaluation learning is very useful to determine how much students can understand the material presented, to what extent the goals that have been set can be achieved, and whether there is a change in student attitudes during the online learning process.

Difficulty Study Online Student

The learning process online is done using platforms like Google Forms and WhatsApp. Existence WhatsApp facilitates communication activities near and long distances and is a means of oral and written communication, can store messages, and is very practical [15-17].

The difficulties experienced by students in using the WhatsApp application at the time of learning cause the cell phone memory to become whole, which will, of course, result in a slow internet connection, and learning materials or modules sent via WhatsApp usually will accumulate. Accessing it will be challenging; the location will also affect the signal strength. Technical difficulties in the form of signals and learning disabilities-line are the most common problems students face. Most students complain that learning is difficult because of signal constraints and wasteful internet quota [18-20].

Collecting assignments is not time due to a lack of understanding of the material; the main obstacle to learning online is quota problems and bad signal networks sometimes make the explanation or the teacher's voice when explaining lost; some subject matters are difficult to understand. Using a large study quota makes students spend more money to buy internet quotas. Parents complain about the large amount of spending to buy increasingly expensive internet quotas, considering that the economy has also been disrupted due to the pandemic. Based on the percentage of student responses based on alternative answers, most of the student responses stated that during the learning process online, students had difficulty with questionnaires related to facilities such as networks and study quotas, with the highest percentage.

CONCLUSION

Implementation of learning online consists of 3 stages: the preliminary stage, core activities, and closing. There are two learning difficulties experienced by students, namely difficulties in learning online and means. The difficulties experienced by students in using the applicationWhatsApp at the time of learning is a lot of chat group entry makes students not focus on learning, learning materials or modules are sent throughWhatsApp they will pile up and be difficult to access because they have to scroll upwards to be able to follow the course of the discussion besides that the existence of a location will also affect the signal strength. Difficulty with facilities in the form of signals and the inability to learn online is the most common problem students face. Most students complain that learning is difficult because of signal constraints and wasteful internet quota.

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