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Identification of Obstacle Students Physics Education FKIP USK in the Process of Online Learning

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ABSTRACT

The learning process is carried out face-to-face or at certain times as well as E-learning, but the outbreak of the Covid-19 virus has caused sudden changes causing student learning disruption due to having to adapt to the implementation of online learning. This study aims to identify the obstacles faced by Physics Education students of FKIP USK in the online learning process. The research subjects were 70 physics education students in class 2019. The method used is qualitative research with a descriptive design. Data collection was carried out by using a closed-based questionnaire *google form*. Data processing uses simple statistics in the form of percentage calculations. The results of the percentage data analysis showed that from the external aspect 62.9% experienced obstacles. From the results of the identification of obstacles faced by physics education students in the online learning process, The highest impact felt was the network followed by practicum and followed by a home atmosphere, which caused disruption to students in online learning.

Keywords: Obstacles, Physics Education Students, Online Chasing

INTRODUCTION

The learning process is carried out face-to-face at the Syiah Kuala University campus or at certain times it is also carried out with *e-learning*. But nowadays there is an epidemic *corona virus disease* otherwise known as Covid-I9, which hit the world and one of them was in Indonesia in early March 2020. The Indonesian government implements a *Work From Home* (WFH) to break the chain of spreading the Covid-19 virus. This policy has an impact in various sectors, one of which is education (Rahmawati, et al: 2020).With WFH restrictions and policies, the Ministry of Education and Culture also enforces this policy for every education unit including universities to carry out the learning process online from their respective homes. With this The Chancellor of USK also issued a circular that "lectures are not closed, they will but the face-to-face implementation method is replaced with other methods without face to face for the even semester of the Coronavirus prevention ... "With this, each faculty carries out a learning process 2019/2020 academic year from home (*http://unsyiah.ac.Id/berita/unsyiah*)

Problem of Research

The sudden changes cause student learning disruption and lecturers' limitations in delivering learning due to having to adapt to the implementation of online learning during the pandemic. For students of FKIP USK physics education, this change is quite a challenge, because some of them experience obstacles such as slow networks, lack of understanding of online learning, no practical tools are less interested and do not understand, when taking exams and finals are not maximal in answering questions, concentration was distracted by the atmosphere of the busy house, and besides that online learning was tiring due to the multitude of tasks.

The several previous studies also explained the obstacles experienced by students in this online learning process. The results of the study stated that 100% of students chose face-to-face lectures compared to online lectures and the inhibiting factor for the online recovery process was the lack of data and internet packages (Gultom & Sitanggang, 2020) and (Anhusadar, 2020). Another study stated that the highest obstacle experienced by students was the limited internet quota (38.6%). The lowest obstacle is the availability of equipment (84.6%). And the average of both internal and external factors is categorized as low resistance, namely, internal factors (63.6%) and external factors (61.2%).

The obstacles that students feel when online learning takes place is an important aspect that must be studied in depth, especially physics education students. Thus, the researchers tried to identify these barriers to dig up information and describe the obstacles faced by physics education students in the online learning process during the pandemic.

Research Focus

The review is specifically focused on the obstacles felt by physics education students of class 2019. This research needs to be done in order to explore and describe the obstacles faced by physics education students in the online learning process during the pandemic.

METHODOLOGY OF RESEARCH

General Background of Research

The approach used in this research is a qualitative approach with descriptive research type.

Subject of Research

The subjects in this study were students of the class of 2019 as many as 72 people had participated in daring learning. The subjects in this study were determined by a purpose sampling technique, namely data collection techniques with consideration of data sources with certain considerations based on certain goals. While the object of this research is the obstacles faced by physics education students in the online learning process.

Instrument and Procedures

Data collection techniques in this study using a questionnaire. The questionnaire used is based on *google form.* This research was conducted by providing a google form link which contains a number of written statements that have been compiled to students who are the research samples. Then the data processing results of responsive answers are carried out to find out what obstacles students face in the online learning process. The following instrument grid is presented as follows:

Table 1. Grid of Student Barriers in the Online Learning Process

Aspect	Indicator	Sub Indicator	No. Statement
External factor	Realization of lecturers and students	delivery of material	10
		Duty	13,8
		practice	9
	Amenities	Internet quota	2
		internet/network access	4
		device	3,20
	Family	family	14,16
		sibling	15
		the economy	17
	Other Activities	off campus	18,19
		on campus	11

Source: Hariyanti, et al (2020) & Hidayat (2020)

Data Analysis

Data analysis used qualitative data analysis techniques. The qualitative data was taken from the data from the questionnaire results of respondents' answers about the experiences of physics education students in following the online learning process. The data analysis steps in this study are:

1. Collecting data and checking the completeness of the data in the form of a questionnaire from the answers that have been filled in by the respondent.
2. The questionnaire result data is grouped according to the statement indicator
3. Changing the questionnaire / questionnaire data by entering the data into the percentage qualitative descriptive formula, with the following formula:

$$P = \frac{F}{N}\ 100\%$$

Information:
P = Percentage value sought
F = Total score obtained
N = Total ideal score

Furthermore, the percentage category is used to determine the percentage of obstacles faced by physics education students in the online learning process, this percentage category is presented in table 1 as follows.

Table 2. Category of Percentage of Barriers for Physics Education Students 2019

Percentage%	Criteria
85-100	Very high
69-84	High
53-68	Enough
37-52	Low
20-36	Very low

RESULTS AND DISCUSSION

Overall, the percentage categories of obstacles faced by physics education students in the online process were obtained which are presented in Table 3 below:

Table 3. Percentage of Physics Student Barriers

Aspect	Indicator	Sub Indicator	Average Score	%	Category
External factor	Realization of lecturers and students	delivery of material	4	70,3	High
		Duty	3	59,2	Enough
		practice	4	71,4	High
	Amenities	Internet quota	3	68	Enough
		internet/network access	4,2	83,1	High
		device	2,95	56,7	Enough
	Family	family	3,5	69,4	High
		sibling	3	57,7	Enough
		the economy	2,9	58,8	Enough
	Other Activities	off campus	2,34	46,5	Low
		on campus	2,4	48,5	Low
Average Amount			2,94	62,9	Enough

Based on Table 3, it is known from the external aspect that students have an average percentage of resistance 62.9% which is categorized as sufficient. The indicator of the realization of lecturers and students for the sub-indicator of student material delivery has a barrier percentage of 70.3%, high category. This means that the sub-indicators of student material delivery have obstacles (Herliana, F. et. al., 2020). From the side of the sub-indicator student assignments have a percentage barrier of 59.2%, categorized enough This means that

the sub-indicators of student assignments have enough obstacles. Meanwhile, in terms of the sub-indicator student practicum has a percentage barrier of 71.4%, high category. This means that the sub-indicators of student practicum have obstacles.

In the Facility indicator for the internet quota sub indicator, students have a percentage of resistance at 68%, categorized as sufficient. This means that the sub-indicators of internet quota students have enough obstacles. In terms of the sub-indicator of internet access / student network, it has a barrier percentage of 83.1%, categorized as high. This means that the sub-indicator of internet access / student network has obstacles. Meanwhile, in terms of the sub-indicators of student equipment, it has a percentage of resistance of 56.7%, categorized as sufficient. This means that the sub-indicators of student equipment have enough obstacles.

In the family indicator for the student family sub-indicator, it has a barrier percentage of 69.4%, this score is included in the high category. This means that for the sub-indicator student families have obstacles. In terms of sub-indicators, students' siblings have a barrier percentage of 57.7%, categorized as sufficient. This means that for the sub-indicator student siblings have enough obstacles. Meanwhile, in terms of the economic sub-indicators, students have a barrier percentage of 58.8%, categorized as sufficient. This means that the student economic sub-indicators have enough obstacles.

In the other activity indicators for the off-campus and on-campus sub indicators, students have a percentage of barriers of 46.5%, and 48.5%, which are low category. This means that for other activity indicators students do not have obstacles in participating in an activity, for example, such as being most active in class forums and also attending seminars held by other organizations.

From the explanation above, it can be concluded that the barriers, the percentage of barriers that are dominated, are the sub-indicators of internet/ network access with the percentage of barriers of 83.1% in the high category, which means that students experience obstacles in the process of accessing the internet during the online learning process. The second place is the practicum sub indicator with a percentage of resistance of 71.4%, in the high category, which means that students experience obstacles in the learning process for online practicum material. and   for the third place is the sub-indicator of material delivery, the percentage of resistance 70.3%, high category which means students experience obstacles to the delivery of material in the online learning process. while for the next is the family sub indicator with a percentage of resistance of 69.4%, high category which means that students experience obstacles marked by a lack of family support and a home atmosphere as a place for the online learning process.

These findings support previous research that students experience several obstacles in online learning, namely internet networks, internet quota, unfavorable conditions or the surrounding environment (Jariyah & Tyastirin, 2020). This finding too supports previous research that the concentration of student learning is disturbed by the home atmosphere and the inefficiency of the online learning process because there are practical courses (Zamista et al,

2020). This finding also supports previous research that the inhibiting factor in the online lecture process is the lack of data and internet packages (Anhusadar, 2020). And This finding also supports previous research that the factors that cause student learning difficulties are internal and external factors (Herliana, F. et.al., 2015).

CONCLUSION

Based on the results of the research and analysis of the data obtained, it can be concluded that the obstacles faced by FKIP USK physics education students in the learning process from the external aspect are networks, followed by practicum, and followed by home settings. It can be seen that, the most perceived obstacles by physics students are those found on the network while attending lessons, the implementation of practicums and the unsupportive home atmosphere.

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