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The Response of High School Students In Singkawang City Towards Physics Learning During Covid-19 Pandemic

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ABSTRACT
This study aims to get an overview of the responses of high school students throughout Singkawang City about learning physics during the Covid-19 pandemic. This qualitative research uses a survey method. The subjects in this study were all state high school students in Singkawang City. The research sample was taken using the Convenience Sampling technique. Students' responses to learning physics during online learning are less liked by students because of limited internet signals and lack of guidance from teachers when learning online. This makes students less understand the physics material that is explained. The results of this study are, student responses in Very Good category by 2%, in Good category by 3%, while in Moderate category by 16%, and in Bad category by 79%.

INTRODUCTION

The Covid-19 virus pandemic began to spread in Indonesia in March 2020. With this incident, the government immediately set rules regarding the prohibition of crowding because the virus can be transmitted through physical contact [1]. The Covid-19 pandemic has caused many disasters in various fields, including education. The Covid-19 pandemic affected 646,192 education units, 68,801,708 students, and 4,183,591 educators ranging from Early Childhood Education to Higher Education, Special Education, Vocational Education, Community Education, Courses, and Religious Education [2]. Therefore, there needs to be a consideration that must be carried out by the Ministry of Education and Culture (Kemendikbud) and the Ministry of Religion (Kemenag) in implementing independent learning at home because there are differences in the character of students in each region in Indonesia [3]. One of the learning strategies that can be done during the Covid-19 pandemic is online learning. With online learning, students will be able to take an active role during learning [4].

The circular letter of the Ministry of Education and Culture (Kemendikbud) number 15 of 2020 concerning "Guidelines for the implementation of learning from home in an emergency period of the spread of Covid-19" conveys several things related to the implementation of online learning, namely 1) Learning from home during the emergency spread of Covid-19 is carried out must continue to pay attention to the protocol for handling Covid-19; and 2) Learning from home through online and/or offline distance learning is carried out in accordance with the guidelines for organizing learning from

home as stated in the Attachment to the Circular [2]. Meanwhile, according to a circular letter from the Governor of West Kalimantan Number 421/1587/DIKBUD-A which states that offline learning is not allowed by the government, offline learning will be shifted to online learning which is valid during the 2020/2021 academic year [2]. In this regard, In conducting online learning, every student will definitely experience various kinds of obstacles during the learning process, but each student has different ways and opinions regarding online learning during the Covid-19 pandemic.

Online learning has the advantage of being able to foster self-regulated learning. Using online applications can increase learning independence, can easily access learning, more affordable costs, flexible study time and broad insight. The drawback of online learning is the limited internet access faced by students. If they are in an area that does not have stable internet coverage then it is difficult for students to access the internet. The reduced interaction with the teacher has implications for the reduced interaction between the teacher and students so that it will be difficult for students to get further explanations about material that is difficult to understand. The lack of supervision in conducting online learning makes students sometimes lose focus. However, for those who have easy internet access, some students tend to procrastinate studying. Self-awareness is needed so that the online learning process becomes directed and achieves goals [5].

Online learning cannot be done if the school or parents do not have adequate facilities and infrastructure. This learning will not succeed when teachers and students do not have adequate computers, cellphones, or internet networks. There are many obstacles encountered during the implementation of the online learning process, such as student saturation in carrying out learning which is more monotonous because the teacher gives many tasks to students. Constraints on the availability of internet networks are also a matter of concern for both teachers and students [6].

Physics is one of the subjects taught to high school students, which is also required to be taught from home or online learning during the pandemic. Some students commented that offline physics learning with the guidance of a teacher is very difficult to understand physics, especially if there is no meeting with the teacher, and only study alone at home. This statement from students is a challenge for teachers who are required to be creative in providing physics material online, so that students do not only do academic assignments but also do fun activities so as not to reduce the enthusiasm of students in learning physics [7].

METHOD

This study uses a survey method using a questionnaire as a research tool carried out on large and small populations, but the data studied are data from samples taken from the population, so that relative incidence, distribution, and relationships between variables, sociological and psychological are found [8]. This research was conducted in all public high schools in Singkawang City online via google from media. Respondents in this study were all Singawang City Senior High School students who were determined using the Convenience Sampling technique.

The data collection technique used in this study was in the form of a questionnaire adopted from [9]. Researchers used a closed questionnaire with the Guttman Scale to describe student responses to physics learning during the Covid-19 pandemic using categories in the form of Agree and Disagree with the following calculation steps:

1. Grouping each statement item and adjusted to each aspect.
2. Summing up each score obtained from the statement items and adjusted to each aspect.
3. Calculate the percentage of each category using the following equation.

$$\%R = \frac{(S^+)+(S^-)}{S_{tot}} x100\% \quad (1)$$

Table 1. Student Response Score Criteria [10]

Percentage of student response scores	Criteria
85% ≤ R ≤ 100%	Very good
70 % ≤ R < 85%	Good
50 % ≤ R < 70%	Moderate
R < 50%	Bad

RESULTS AND DISCUSSIONS

Results

The following is data on the number of students based on school origin:

Table 2 Respondents Based on School Origin

No	School Origin	Number of Respondents
1	SMAN 1 Singkawang	135
2	SMAN 2 Singkawang	90
3	SMAN 3 Singkawang	127
4	SMAN 4 Singkawang	82
5	SMAN 5 Singkawang	19
6	SMAN 6 Singkawang	33
7	SMAN 7 Singkawang	62
8	SMAN 8 Singkawang	105
9	SMAN 9 Singkawang	29
10	SMAN 10 Singkawang	31
Total Respondents		**713**

Based on data from the Singkawang City Public High School, the researcher gave a questionnaire with two different statements, namely a positive statement with 10 statements and a negative statement with 10 statements, so the total statements that the respondents had to answer were 20 statements distributed via google form media on Monday, August 9 2021. The following table is the research data based on the student response questionnaire grid:

Table 3 Student Response Recapitulation

No	Indicator	% Student Response	
		+	-
1	There is a feeling of pleasure in the learning process	42	58
2	There is a concentration of attention and thought on the learning process	24	76
3	There is a willingness to learn	40	60
4	There is a willingness from within to be active in learning	37	63
5	Efforts are being made to increase the desire to learn	40	60

Based on the results obtained from the questionnaire with positive statements and negative statements, the results obtained are the percentage of student responses based on the following criteria:

Table 3 Percentage of Student Responses Based on Criteria

No	Criteris	Number of Respondents	% Student Response
1	Very Good	14	2%
2	Good	22	3%
3	Moderate	114	16%
4	Bad	563	79%

Based on the results of the percentage of student responses, Very Good criteria only get a percentage of 2%, Good criteria only get a percentage of 3%, Moderate criteria only get 16%, and Bad criteria get a very high percentage of 79%.

Discussions

In the first indicator, there are fewer students who respond positively than students who respond negatively. More than half of students do not like online learning, it is caused by the explanation of the material from the teacher which is still not clear so that students do not understand the material explained. This finding is supported by research conducted by Khairiayah which received the same response, namely students stated that online learning was not fun, because they could not ask questions directly and did not meet friends and teachers [11]. Based on research conducted by Amelia & Darussyamsu obtained student responses stating that the learning process is better done offline than online [12].

In the second indicator, the number of students who responded positively was less than the number of students who responded negatively. This is because when online learning students become unfocused while following the learning process. This is reinforced by research conducted by Khairiayah which shows that students find online learning less enjoyable because the material explained is not understood, limited internet access, application disruption, and lack of guidance by teachers [11]. This is also supported by research conducted by Puspaningtyas & Dewi, where some students show a lack of enthusiasm for online learning, online learning makes students feel lazy [13].

In the third category, the number of students who responded positively was less than students who responded negatively. This is because the majority of students are less enthusiastic when participating in online learning. This is reinforced by research conducted by Anggraini which shows that only a few students become more diligent when participating in online learning during the Covid-19 pandemic [14].

In the fourth indicator, the number of students who responded positively was less than the number of students who responded negatively. This is because the majority of students lack confidence when answering questions from the teacher, thereby reducing the willingness to learn from within students. This is supported by research conducted by Hidayatullah which shows that as many as 81.6% of respondents think that online learning cannot encourage collaborating with friends because they have difficulty in discussing and asking questions [15].

In the fifth indicator, the number of students who responded positively was less than the number of students who responded negatively. This is because the majority of students do not like online subjects with material that has a lot of calculations and complicated concepts that make students less willing to learn from within. This is supported by research conducted by Nurmainiati & Ghina, which shows that student responses are 97.14% in the strongly agree category, 2.85% in the agree category and 0% in the disagree and strongly disagree categories [16]. Students are more interested in offline learning than online learning, because they can interact directly with teachers and their friends.

From many obstacles faced by students, one of them is that they have difficulty understanding the physics material explained by the teacher. Physics subjects are subjects that are considered difficult by the majority of students because they have many calculations and complex concepts. This is supported by research conducted by Padli & Rusdi which shows that most students find it difficult to carry out online learning [17]. This is also reinforced by research conducted by Purniawan & Sumarni which shows that almost all students experience problems when learning online [18].

During online learning, the explanation of physics material becomes less clear due to several things, one of which is an unstable internet connection, which makes the teacher's explanation less clear. This is reinforced by research conducted by Hidayatullah which shows that as many as 79.6% of respondents think that the material is not easy to understand during online learning because there are things that cannot be asked and it is difficult to obtain explanations such as learning mathematics and

science [15]. This is also supported by research conducted by Nurmainiati & Ghina which shows that students do not understand physics lessons with online learning [16]. However, some of the students said that not all the physics material explained was difficult to understand, but it all depended on the characteristics of the physics material being studied.

Although many students do not understand the physics material taught online, there are students who easily understand the material presented because these students really like physics lessons so that it is easy for them to understand the physics material delivered by the teacher. In addition, there are also students who easily understand the physics material taught online because they prefer it if the teacher provides learning via video and guides students as expected by the student. Each student also has inhibiting and supporting factors in carrying out online learning, especially in learning physics. The majority of students gave the same answer to each factor, both supporting factors and inhibiting factors. All of these factors are found in the teacher and learning facilities. Students want teachers to be able to better guide them during online learning and explain the material in detail so that students can easily understand the material presented. As for online learning facilities, students still have many problems with the internet network, thus making students often suddenly log out of online learning. This is supported by research conducted by Rompas which shows that the majority of respondents often experience problems related to signals while participating in online-based learning [19]. Therefore, many students want online learning in the following year to be replaced by offline learning.

CONCLUSION AND SUGGESTION

Based on the data from the research and discussion that have been described, it can be concluded that online physics learning has received a poor response because online physics learning is considered difficult and the teacher's time limit to explain the material is very short, especially on the material of magnitude and measurement. The percentages in each category are 2% in Very Good category, in Good category by 3%, in Moderate category by 16%, and in Bad category by 79%.

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