

Analysis of Online Learning Biology Lesson for Junior High School Students in Bogor City, West Java, Indonesia

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Abstract – Online learning was a way of learning that has an impact on teachers. Biology teachers' readiness to adapt online learning still takes time. Face-to-face learning patterns that have long been applied, and had been abandoned, replaced by online must pay attention to various factors, in order to achieve material completeness, and without reducing student learning outcomes. The purpose of this study was to determine the availability of online teaching plans for Biology teachers, to find out the use of internet applications by Biology teachers in online learning at junior high schools in the city of Bogor, to determine the use of online learning media for Biology teachers, and to find out how to deliver Biology material in online learning in Bogor city. The method used as descriptive qualitative method. Primary data was taken from filling out questionnaires to 157 Biology teachers spread across the city of Bogor. The study was conducted from August 2020 to December 2020. The results showed that the readiness and availability of category teaching plans were sufficient. However, there were still a number of teachers who have not prepared an online lesson plan. While the most internet application used by Biology teachers isWhatsapps. Meanwhile, the delivery of material for Biology teachers was quite good, this is proven by data and interviews with several teachers, their motivation was good. Teachers were able to use teaching methods as much as 87%.

Keywords – Analysis, Online, Learning, Biologi

I. INTRODUCTION

The first start of the corona virus entering Indonesia was on February 28, 2020. It was confirmed that an Indonesian citizen was infected with the corona virus, after the doctor gave a statement at the hospital. At the same time, several schools examined several teachers who had a fever. The number of infected residents of Bekasi city was 30 person. The government immediately, imposed a day off for students.

In June 2020 the local government has prepared rules for the implementation of online learning for junior high school students. Teachers and students are getting ready to learn online. Researchers conducted initial observations by interviewing Biology teachers who had implemented online learning.

During the interview, several problems appeared during online learning. As students must understand the material that has been given by the teacher [1]. Finally, a number of teachers are unable to keep up with changes in technology use[2]. Learning that has been running for 2 months, requires evaluation and improvement. Problems that arise include some teachers do not understand information communication tools, including computers, laptops, cellphones and learning support applications. Uneven facilities are also an obstacle to online learning. Teaching materials and teaching methods that are in accordance with online learning have become a series of problems in online learning of Biology subjects for junior high school students, causing new problems in the world of education [3].

These problems arise due to a lack of training and adequate knowledge for teachers to be able to carry out online learning. Teacher readiness is less than optimal in starting online learning. The limitations of online teaching plans are also a problem for teachers in carrying out online learning.

The use of online learning can only be used by teachers who have high teaching intentions and motivation. The teacher is able to establish inner bonds and communication and the teacher must be creative [4]. The success of online learning is influenced by the teacher in managing online learning. The limitations of infrastructure and the readiness of teachers and students are important things that should be studied and observed. Including internet network problems, and technical problems in learning [5].

These problems can be summarized into several problems, namely the availability of advice and infrastructure, schools and teachers who support the success of online learning. This research is important, because online learning is a learning that must be implemented, because it has become a necessity. The corona pandemic, which did not end until now, has become an effective distance learning option to reduce the spread of the corona virus. Distance learning is very necessary in order to reduce the spread of the virus. Distance education is the most well-known description used when referencing distance learning. This often describes efforts to provide access to learning for those who are geographically distant [6].

Based on the description above, the researcher can convey several problems such as, how is the availability of online teaching plans by Biology teachers in online learning at junior high schools in Bogor City? 2. How is the use of internet applications by biology teachers in online learning in Bogor City? 3. How is the use of online learning media by biology teachers in Bogor City? 4. How is the delivery of biology material by teachers in online learning in the city of Bogor.

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II. RESEARCH METHODS

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Figure 1. The process of methodology

Third, includes generalization, namely drawing general conclusions, according to samples that represent the population. Researchers will be able to find comprehensive and accountable data, because by using qualitative research data, as a form of research that tends to photograph social phenomena. Through the ability to process the database owned by the descriptive qualitative method. Primary data were taken from filling out questionnaires to 157 Biology teachers spread across the city of Bogor. The research was conducted from August 2020 to December 2020. The details of the number of teachers are as follows:

Table 1. Respondents address

Districts	Teacher's Number
West Bogor	30
Central Bogor	28
East Bogor	24
Tanah Sereal	36
North Bogor	39
Total	157 Biology Teachers

It can be seen in the table that the highest number of teacher respondents is in North Bogor, and the least is in East Bogor, as many as 8 teachers. Random selection of respondents. The questionnaire was filled out online, considering that the situation in the city of Bogor was still filled with the corona pandemic. Collecting data using questionnaires, online interviews, and online documentation. Retrieval of questionnaire data using google form. Research respondents came from various regions and sub-districts in the city of Bogor. Of the 157 Biology teachers in the city of Bogor, 63% are women and 37% are men.

III. RESULTS OF THE STUDY

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1. Accuracy of online study schedule and Lesson Plan

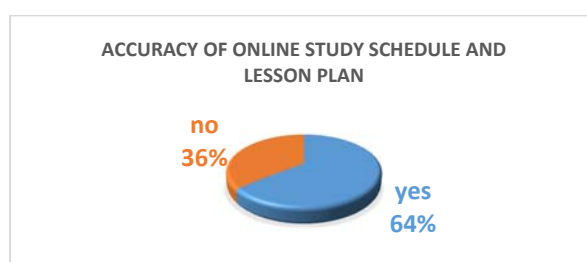


Figure 1. Accuracy online schedule and lesson plan

From the data above, it can be seen that the accuracy of the study schedule reaches 64%. According to an interview with a Biology teacher who did not want to be named, learning often changes according to government regulations. The government often imposes holidays, or shifts in study hours. Motivation to teach online

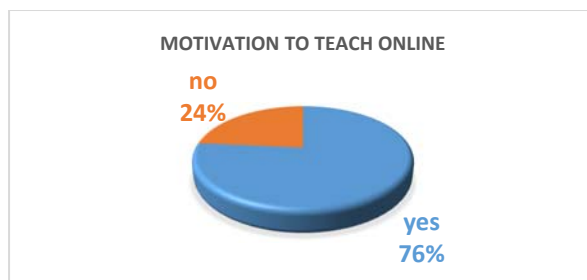


Figure 2. Motivation to teach on line

From the data above, it appears that online teaching motivation reaches 78%. While 24% stated that they were not motivated to teach. This needs to be a concern for school principals and local government.

2. Communication between teacher and students

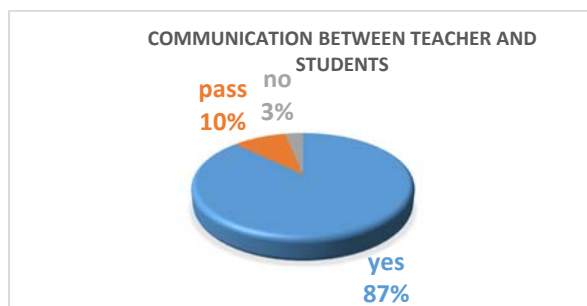


Figure 3. Communicaton teacher and students

From the table above, communication between teachers and students is 87% yes, while the answer is just 3% and no by 20%, even though distance learning is still categorized as good.

3. Use of electronic device

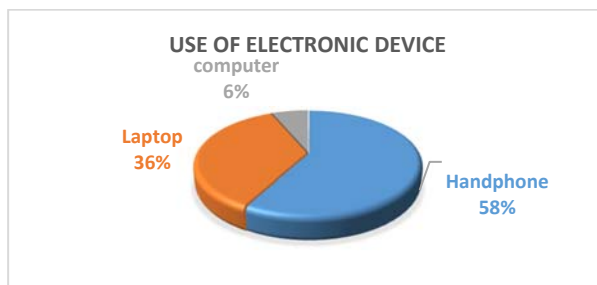


Figure 4. Use of electronic device

In the picture above, it can be seen that the use of mobile phones is 58%, mostly used by teachers, while computers are 6% and laptops are 36%. The use of cellphones is dominantly in demand by teachers, because they can easily access, and have cellphones.

4. Teaching method

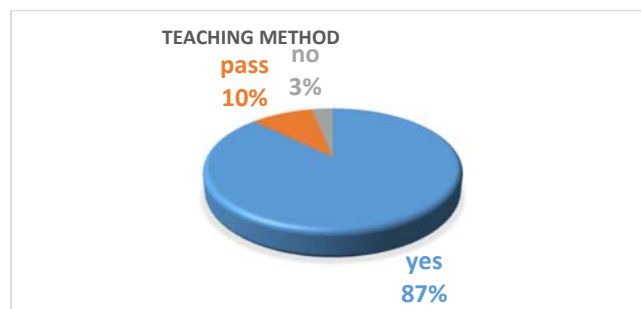


Figure 5. Teaching Method

In the picture it appears, the teachers use teaching methods as much as 87%, while those who do not use methods are only 3%. This is in accordance with interviews from several teachers, who prioritized teaching methods, so that students did not feel bored and felt lonely.

5. The system Biology learning

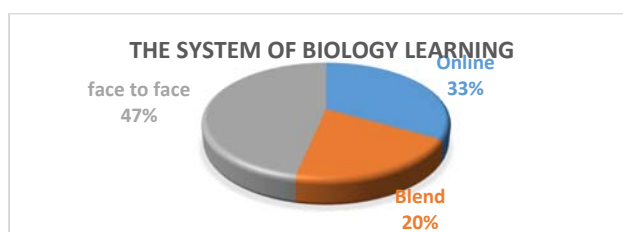
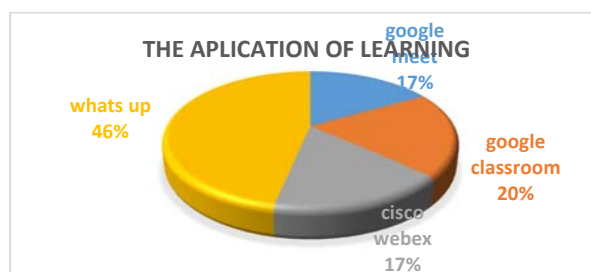


Figure 6. The system of Biology learning

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6. Application of Learning on line



In the data above, it appears that the WA group dominates the use of online learning in the city of Bogor, especially learning Biology subjects.

Researchers recorded all online interviews and all incoming data, from the data above it can be explained that the readiness and availability of teaching plans when learning online is 64%, this includes sufficient categories. Teachers are expected to have creations and ways to explain to students, so students can understand the lesson. There are common challenges associated with online teaching, but there are many tools available to help instructors become more proficient so that they can meet learning goals and increase student success[7]. However, there are still as many as 34% of teachers who have not prepared an online lesson plan. This is understandable because, adjusting from face to face to online requires adaptation and takes quite a long time. The adjustments included anticipating students who were lonely for too long. The school should anticipate this. Students who sometimes study online fully express feelings of isolation, so schools must find ways to interact with their online students[8]. While the most internet application used by Biology teachers isWhatsapps as much as 46%, followed by Cisco Webex at 20% and Google Meet, Cisco

Webex at 17%. Parents of students also helped the online learning process, but there were many obstacles found, including parents who could not focus on the material discussed [9].

While the delivery of material for Biology teachers is quite good, this is proven by data and interviews with several teachers, their motivation is very good as many as 76% of teachers are motivated, and there is communication between teachers and students as much as 64%. The teachers are able to use the teaching method as much as 87%. Teachers are expected to use learning methods, to be able to apply community learning. Creating a learning community is one strategy that has been recommended to increase satisfaction [10]. Strategies can be developed by teachers, including mixed learning strategies. Mixed learning has emerged as a solution to meet this need [11]. The strategy still has to be developed. Future development is a must. Online learning is learning. Learning and education 4.0 requires teachers to adapt to advanced technology. The application of technology can accelerate students' readiness to meet the millennium [12]. In general, researchers have seen and concluded that students have started online learning and teachers have implemented technology-based media. Online learning has been carried out so that students are more enthusiastic to participate in teaching and learning activities[13]

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