ATLANTIS
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The Effectiveness of Students of Vocational High School (SMKN) 2 North Bengkulu in the Middle of the COVID-19 Outbreak Using Online Media

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ABSTRACT

This study aims to determine the effectiveness of students of vocational high school (SMKN) 2 Bengkulu Utara (North Bengkulu) in the middle of the COVID-19 outbreak using online media. This research is a descriptive quantitative study that focuses on evaluating learning using online media. The study population was all students of SMKN 2 Bengkulu Utara who were taught during the COVID-19 outbreak by using online methods. The research sample was students of class XI who were selected using a simple random sampling technique by considering population homogeneity. The data collection instrument used an online learning questionnaire. Data analysis used was descriptive statistics. The results showed that students used online media very effectively (25.3%), most of them rated it as effective (42.7%), and rated it as normal (17%). Although there are also students who think online learning is ineffective (15%), and absolutely none (0%) think it is very ineffective. Finally, to improve the quality of online learning during the COVID-19 pandemic, educators must fulfill ten suggestions from respondents, namely: (1) learning is done through video calls; (2) providing brief learning materials; (3) minimize sending material in the form of heavy videos to save quota; (4) the selection of material in the video must be based on language criteria that are easy to understand; (5) continue to provide material prior to the assignment; (6) giving varied and different questions for each student; (7) assignment must include the way it works; (8) assign assignments according to the lesson schedule; (9) remind students if there is a task given; and (10) reducing the number of tasks..

Keywords: Online media, E-learning, COVID-19 pandemic.

1. INTRODUCTION

National Education is regulated in Law of the Republic of Indonesia number 20 of 2003 article 3 concerning the National Education System (UU Sisdiknas) states that "National Education functions to develop and shape the character and civilization of a nation with dignity in order to educate the nation's life, aiming at developing the potential of students. In order to be human beings who, believe and fear the Almighty God, have noble character, healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens". The aim of national education is a formulation of the quality of Indonesian people that must be developed by each educational unit. Therefore, the formulation of national education goals becomes the basis for education development.

Seeing the current conditions during the COVID-19 pandemic, the provincial and local governments made

policies in the world of education, namely eliminating direct face-to-face learning, replaced by home learning or online learning at both school and college levels. The existence of the COVID-19 pandemic has had many impacts, namely changing various aspects of human life, one of which is education. Given that during this pandemic, time, location, and distance were the biggest problems at this time [1].

The COVID-19 pandemic has hit all countries in the world, including Indonesia. According to the latest data from the World Health Organization (WHO) on April 24, 2020, 213 countries have contracted COVID-19 with a total of 2,631,839 of them confirmed positive and 182,100 died. COVID-19 is a contagious disease, which means it can spread, either directly or indirectly, from one person to another. This condition attacks the respiratory system such as the nose, throat, and lungs. The complexity of handling the outbreak, the absence of vaccines and drugs to cure COVID-19 patients and the

limited Personal Protective Equipment (PPE) for health workers have made the government implement strict policies to break the chain of spreading the COVID-19 virus.

Victims due to the COVID-19 outbreak are not only at the elementary / *Madrasah Ibtidaiyah*, junior high school / *Madrasah Tsanawiyah*, and high schools, vocational high schools / *Madrasah Aliyah*, but also universities. All learning at the education level is carried out by online because face-to-face learning is temporarily eliminated to prevent transmission of COVID-19 [1].

As an effort to prevent the transmission of COVID-19, WHO has appealed to stop events that can cause crowds and gatherings   One way to break the chain of spreading COVID-19 is by limiting community interaction which is applied by the term physical distancing. However, this physical distancing policy can inhibit the rate of growth in various fields of life, both in the economic, social and of course education sectors. The government' s decision to dismiss students, move the teaching and learning process at schools to at home by implementing the Work from Home (WFH) policy makes many parties nervous. Therefore, face-to-face learning that gathers a large number of students in the class is reviewed for implementation. Learning must be carried out with a scenario that can prevent physical interaction between students and teachers or students and lecturers [2]. According to [3] the use of digital technology can allow students and teachers to carry out the learning process even though they are in different places.

WFH stands for work from home which means working from home. The WFH policy is contained in the Circular of the Minister of State Apparatus Empowerment and Bureaucratic Reform [4] concerning Adjustment of the Work System of the State Civil Apparatus in Efforts to Prevent the Spread of COVID-19 in Government Agencies. As ASN, teachers in an effort to carry out the learning process need to be done by online or in a network. However, the implementation of the online learning process has several obstacles. One of the toughest obstacles in online learning is teaching Vocational High School students who should carry out the learning process directly and practically.

The form of learning that can be used as an alternative during the COVID-19 pandemic is online learning. According to [5], online learning uses internet networks with connectivity, accessibility, flexibility, and the ability to generate various modes of learning interactions. Research conducted by [6] shows that the use of the multimedia and internet technology is able to change the way of conveying knowledge and can be an alternative to learning carried out in traditional classrooms. Online learning is learning that can bring together students and teachers to carry out learning interactions with the help of the internet [7].

The use of technology to support human activities is inevitable, without exception in the field of education. The conventional learning system requires a place to hold meetings at certain times and it is deemed insufficient in order to increase student's competence. The need for discussion and delivery of material in conventional systems requires the teachers and students to be at the same place and time. The use of technology to facilitate and also support the teaching and learning process is an effort to improve students' competence.

At the implementation level, online learning needs the support of media or mobile devices such as android phones or smartphones, notebook or laptops, computers, tablets which can be used to acquire information anytime and anywhere [8]. Schools during the WFH era need to strengthen online learning.   Online learning has become a demand in the world of education in the last few years. Online learning is required in learning in the era of the industrial revolution 4.0.

Online learning makes it easy for teachers to provide material and discussion at any time via the internet network. On the other hand, it is also easier for students to download material and conduct discussions related to existing subjects. In addition, online learning also supports online examination. Students are asked to be more independent in answering all exam questions. It is because the questions in the online exam allow randomization of serial numbers and the order of answer choices on multiple-   choice questions.

2. METHODS

This research was a descriptive quantitative study to determine the effectiveness of online learning for students of SMKN 2 Bengkulu Utara in the midst of the COVID-19 outbreak using online media. The study population was all students of SMKN 2 Bengkulu Utara who were taught using online methods. The sample who became the respondents of this study was 30 students of class XI SMK who were selected using a simple random sampling technique by considering population homogeneity. The data collection instrument used a questionnaire containing closed, semi-closed, and open questions which were distributed using Google form. Data analysis used descriptive statistics with computerized assistance.

3. RESULTS AND DISCUSSION

3.1. Sample Characteristics

The number of samples who became respondents in this study was 30 students consisting of 48% female and 52% male (See Figure 1).
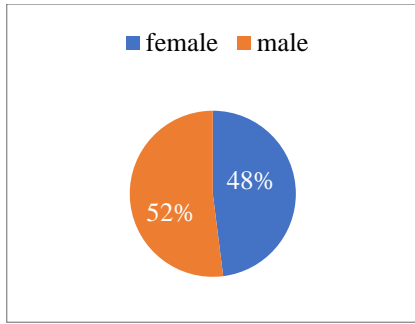
Figure 1. The gender percentage of samples.

The domicile of students who are only in the district of this school has shown that this school has complied with the rules for student admission, namely following the location of the student's residence or the rules regarding the zoning system. Regulations related to this zoning system are contained in the [9] Number 51 of 2018 concerning the Admission of New Students in Kindergarten, Middle School, High School and Vocational Schools. In this regulation, it is explained that schools that are under the government or with state status in the New Student Admissions process are required to accept at least 90 percent of new students who come from near schools.

During the implementation of the work from home policy, most respondents spent a day doing school assignments for all subjects. Other activities they do are playing on mobile phones and laptops using online media such as WhatsApp, Telegram, Email, YouTube, Google Classroom, Google Meet, and Zoom Meetings. They said that during WFH, they could not hold back from using online media because in doing their job they had to use cellphones and laptops. So, it is during these tasks that they play games, or use social media to chat with friends as shown in Figure 2.
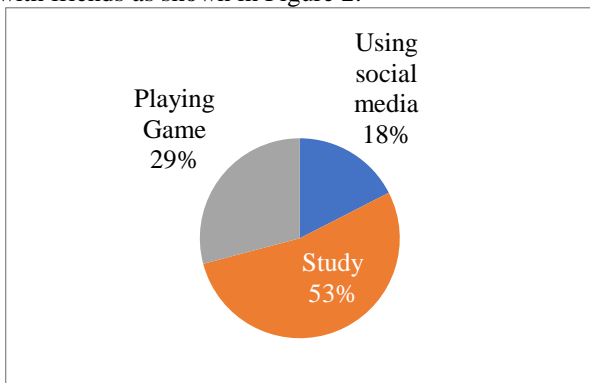

Figure 2. The most activities done   during WFH.

The use of cellphones with a long duration and too frequent intensity because they are used to do tasks and open social media causes physical complaints for them, mostly in the form of eye fatigue (53.3%). They also complained of headaches (33.3%), frequent drowsiness (33.3%), difficulty resting (20%), and other complaints (13.3%) such as fever, shortness of breath, and body

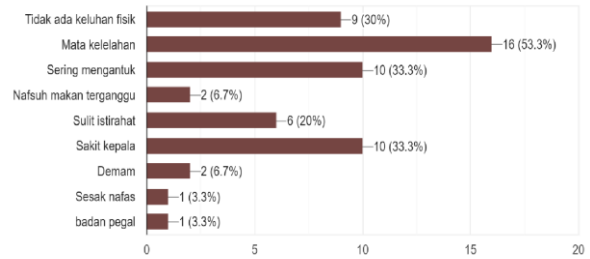aches. However, there were 30% of students who felt no physical complaints.   (See Figure 3)

Figure 3. Physical complaints experienced

These physical complaints are the result of excessive gadget use. The results of this study are in accordance with the results of research previously conducted by [10] who show that using gadgets can cause headaches and eye irritation. In addition, eye fatigue can occur if the eye focuses on a close-up object for a long time and the eye muscles work harder to see the object, especially when accompanied by blinding lighting.

Apart from physical complaints, students also experienced psychological complaints. The most common complaints were a feeling of wanting everything to end (70%), they also felt deep boredom (63.3%), dizziness, (20%), worried (20%), and restless (3.3%).   However, some of them did not feel any psychological complaints (16.7%) (See Figure 4)
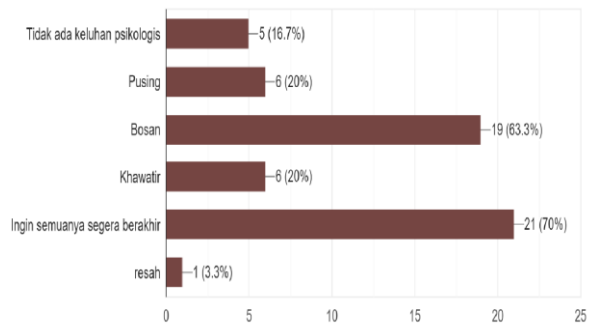

Figure 4. Psychological complaints experienced by students

3.2. Overview of Online Learning

3.2.1. Online Learning Model Liked by Students

The results of the descriptive study describe only some of the students who like learning using online, which is 28.4%, and those who like the blended learning model (a combination of face-   to-   face with online) are 17.6%, and most of the students stated that they liked face-to-face learning with   53.7% of the data obtained (See Figure 5).
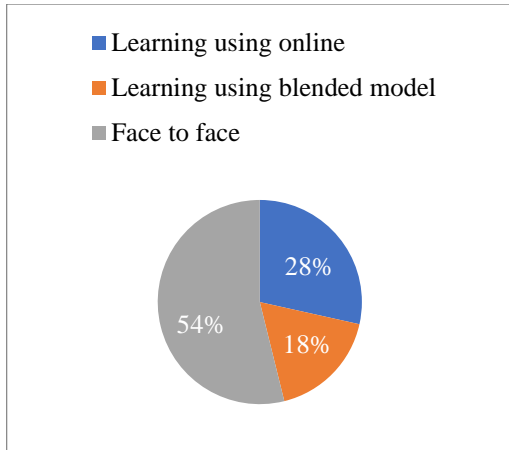
Figure 5. Preferred learning model

Hartanto [11] reveals that cheap and easy information and telecommunication technology will eliminate the time and space constraints that have been limiting the world of education. Some of the logical consequences that occur in the use of e-learning include (1) students can easily access learning material anywhere without being limited to time and place restrictions; (2) students can easily learn and discuss with experts in their field of interest; (3) learning materials can even be easily taken in various parts of the world without depending on where students learn. These various opportunities still face challenges both in terms of costs, the readiness of information technology infrastructure, society, and regulations that support the continuity of e-learning.

The results of [7] research show that online learning models have provided new experiences that are more challenging than conventional (face-to-face) learning models. Not limited to time and place to learn, gives students the freedom to choose the right time in learning based on their interests   so that the ability to absorb learning materials is higher than learning in class. Moreover, the results of the research of [12] that blended learning can make students more active in the learning process in class and by online, make the learning process more enjoyable. If the teacher can make the learning process fun, students will be interested in following the learning process.

3.2.2. Online Media Most Liked by Students

The online media that most students like are Zoom Meeting (35%), WhatsApp Group (28%), Youtube (20%), and Google Classroom (17%). They like online media because it is considered easy and practical to use. In addition, it also does not take up too much quota credit. Even so, they still want face-to-face online meetings such as YouTube and Zoom as they suggest in this study. It is just that the quota constraints and network access are limited, so they hope the government provides effective online facilities and is not burdensome (See Figure 6).
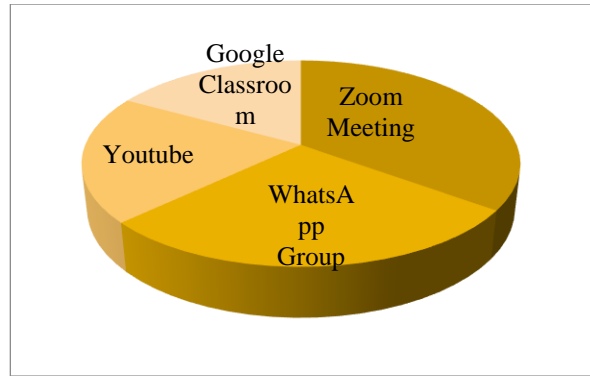

Figure 6. Preferred online media

According to [13] the advantages of the online learning model are that it can be used to convey learning without being limited by space and time, can use various sources that are already available on the internet, and teaching materials are relatively easy to update. Besides, it can increase the independence of students in the learning process. The results research show that teachers are expected to be able to present material through the web that is attractive and of interest, serve guidance and communication via the internet, and other necessary skills.

3.2.3. Learning Methods Students Like When Online

The online learning methods most liked by students are as follows: discussions, quizzes, individual assignments, lecture methods (explanation from the teacher), videos, and group assignments as shown in Figure 7.
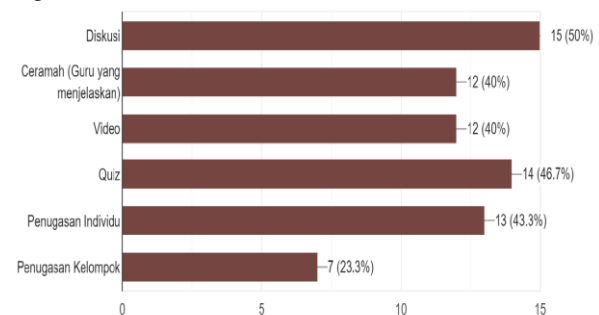

Figure 7. Preferred learning methods when online

Sari [14] research results reveal that to motivate students both intrinsically and extrinsically, the use of e-learning in the learning process must pay attention to the principles of use and the advantages and disadvantages of e-learning. The learning process using e-learning should not place students only as " listeners" or " spectators"   , but also encourage active participation of students to interact, dialogue, cooperate, share, and build knowledge together. Also, in using e-learning teachers must be creative and innovative and have a critical attitude in choosing learning materials, have

good ethics in using these materials, avoid using images or audio that are less relevant to learning materials, encourage active participation of students, pay attention and provide more time to students, not limited to face-to-face in class, patiently guide students who have difficulty using e-learning, be professional and have the motivation to continue learning and improve knowledge and skills .

3.2.4. Constraints Faced by Students during Online Learning

There are some, constraints faced by students during online learning, namely unstable internet network, too many tasks, difficulty focusing, limited quota pulses, complicated applications, and preferring face-to-face learning (See Figure 8).
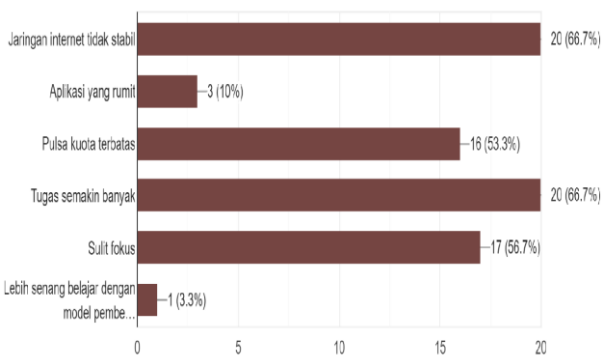

Figure 8. Constraints Faced During Online Learning

The availability of internet access is indispensable in e-learning, because the characteristics of this learning always use and utilize the internet network. In general, the speed of internet network access in Indonesia is relatively slow, the availability of the internet network is still limited and the price for accessing the internet is relatively expensive, thus becoming obstacles to e-learning learning.

3.2.5. Assessment of Online Learning Effectiveness

Students accept the fact that currently working from home is being implemented which demands online learning. Students rated using online media as very effective (25.3%), most of them rated it as effective (42.7%), and rated it as normal (17%). Although, there are also students who consider online learning ineffective (15%) as shown in Figure 9.

The use of online media in online learning allows students to have high enthusiasm for learning and doing assignments. The results of research show that there is a significant effect of the use of learning media on students' motivation. Likewise, there is a positive effect of the use of e-learning on the motivation and learning achievement of students at the school. The results of research by Aurora *et. al.* [15] also show that there is a positive and significant influence between the

use of e-learning media and student learning motivation. Nadziroh [16] research results show that e-learning is effective in improving the quality of learning, because the learning process is not only fixed at one time and in a room.
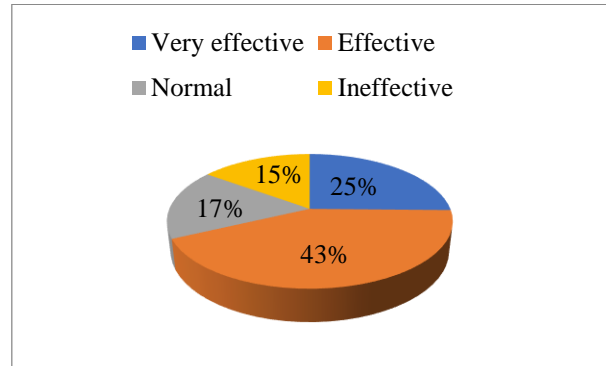

Figure 9. Assessment of online learning effectiveness

4. CONCLUSION

Learning innovations carried out by North Bengkulu Vocational High School 2 teachers, namely by using online media, helped students undergo online learning during the COVID-19 pandemic. As a result, students rated learning using online media as very effective (25.3%), most of them rated it as effective (42.7%), and rated it as normal (17%). Although there are also students who think online learning is ineffective (15%), and absolutely none (0%) think it is very ineffective. To make learning even more effective, in the future teachers or educators are expected to apply the ten suggestions given by students, namely (1) learning is carried out via video calls; (2) providing brief learning materials; (3) minimize sending material in the form of heavy videos to save quota; (4) the selection of material in the video must be based on language criteria that are easy to understand; (5) continue to provide material prior to the assignment; (6) giving questions that are varied and different for each student; (7) assignment must include the way it works; (8) assign assignments according to the lesson schedule; (9) remind students if there is a task given; and (10) reducing the number of tasks.

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