

## The Effectiveness of Online Learning on Buru State High School Students on Learning Achievement in Covid-19 Situation

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### ABSTRACT

*The Covid-19 virus has impacted almost every element of human life. Various official actions, especially those taken by the Indonesian government, have been taken to break the chain of transmission of the virus. One of the sectors that will determine the condition of this pandemic is the education of elementary school children. So far, the Ministry of Education and Culture has not urged local governments to open schools outside the yellow and green zones. The purpose of this research is to find out the effectiveness of online learning for high school students in Buru State on learning achievement in the Covid-19 situation. This study uses a combination of quantitative and qualitative research. Quantitative research was conducted to see the level of student learning effectiveness. Qualitative research was conducted to determine student responses to the implementation of learning from home. This is done equally, not too dominant in one of them. Data collection techniques used is a questionnaire using a questionnaire via a google form that is given to students once a month to get an overview of the implementation of online learning during that month. The data analysis technique used is data reduction, data presentation, conclusion drawing drawing/verification. The results of the study indicate that the low learning achievement of students caused by bold learning has made the parties redevelop the applied learning process and increase the intensity of learning so that students experience increased achievement.*

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### 1. Introduction

Almost every element of human life has been influenced by the Covid-19 epidemic. The government has imposed numerous limitations in order to break the virus's transmission chain, including the Indonesian government. Primary school children's education is one of the sectors most affected by this pandemic. The Ministry of Education and Culture has not allowed local governments other than the yellow and green zones to open schools. Therefore, the process of teaching and learning in many schools conducted online (Zulkardi, 2002). Online learning is a learning system that is not carried out face to face, but uses a platform that can help the teaching and learning process that is carried out even though it is distanced (Subroto, 1997). Students can access learning materials and resources without regard to time or location when participating in Learning from Home Activities (BDR). The goal of this Learning from Home (BDR) activity is to encourage distance learning and make material distribution easier for students. As a result, during this epidemic, the learning process that is normally carried out in schools face-to-face with teachers and peers will not be possible. Pupils must study from home (BDR), and professors must develop learning materials that enable students to study from home (Hamdu, 2011). Teachers must adapt their teaching and learning practices as a result of this condition.

Teachers can help students learn more effectively in the epidemic era in a variety of ways. Using sophisticated technology is one of them. Teachers can use the internet and other tools like e-mail, zoom, and Whatsapp to help students learn (Hohenwarter, M. & Fuchs, 2004; Junaidi, et al., 2020). Teachers and children will benefit greatly from the usage of the internet in their home learning environments. E-learning is a type of learning that is carried out through the use of

networks such as the internet, a local area network (LAN), or a wide area network (WAN). According to (Susiati, S., Iye, R., 2019), e-learning has now become a viable option for resolving a variety of educational issues, owing to the availability of e-learning infrastructure such as the internet, computers, electricity, telephones, and other hardware and software. During the learning from home (BDR) program, teachers must utilize suitable teaching methods as well as their conduct and attitudes in controlling the teaching and learning process (Sofyana & Abdu, 2019). All of this is being done to ensure that students have access to learning that is not constrained by space or time during the Covid-19 emergency period.

The web - based learning process necessitates everyone's adaptation to technological and information technology advances (Magfirah et al., 2021). Because online learning takes place from the comfort of their own homes, participation from teachers, students, and parents is crucial to project success. Teachers and students, students and academic staff, and students themselves can all benefit from online learning partnerships. Despite the fact that virtual education is not done head, strong interaction coordination is required (Majid Abdul, 2011). According to improvements in technology and informatics, online learning takes many forms, including visual media, audio-visual, online media, and so on (Ika Dian Kurniati dan Harto Nuroso, 2020). Schools can select the type of learning that best meets their needs and implement it in the teaching-learning process. The use of online learning will be very effective if it meets the essential components in learning, which are discursive, adaptive, interactive, and reflective, with elements that will be very good if incorporated with the learning environment so that it can become online learning that is integrated with the environment or fulfills the digital learning ecosystem component because it can accommodate learning styles, flexibility, and students' learning experiences so that they can become online learning that is integrated with the environment or fulfills the digital learning ecosystem component because it can accommodate learning styles, flexibility, and students (Marwa, 2020). These factors are essential for online learning to be successful.

The online learning process was carried out in practically every portion of Indonesia, including the province of Maluku. Implementing a learning method that focuses on learning materials given through internet media in Maluku, particularly in the Buru district. Online learning media can be thought of as a piece of software that helps teachers provide resources to students during the learning process (Weda, et al, 2022). Learning media, according to (Wantara, 2014), is anything that may be utilized to deliver a message in order to stimulate students' feelings, thoughts, willingness, and attention, as well as encourage the learning process. Online learning media is a method of teaching and learning that uses the Internet to distribute instructional materials to students. As an alternative to electronic-based learning, online learning media offers numerous advantages, particularly for remote educational processes. In online learning, learning media is utilized as a tool to improve learning efficiency and effectiveness. Learning media is used to achieve objectives such as visualizing messages so that they are not overly spoken. Break free from the confines of space, time, and the five senses. Accelerate the learning and teaching process, instill a passion for learning, give students opportunity to interact directly with their environment and field realities, and allow students to learn independently based on their talents and interests (Sofyana & Abdu, 2019). This is a positive step for the learning process during the pandemic Covid-19. However, it is certain whether the learning process can improve student learning outcomes. For this reason, the presence of research can provide an overview of how Effective Online Learning (Online) for Buru State High School Students is on Learning Achievement in the Covid-19 Situation.

## **2. Methodology**

This study employs a mix of qualitative methods. A combined research method is a research approach that combines or combines quantitative and qualitative methodologies in order to collect more comprehensive, valid, reliable, and objective data in a research activity (Sugiyono, 2013). The research technique combination model or exploratory sequential design was employed in this study as a combination research approach (sequence of discovery). Combination research technique model, also known as sequential explanatory design, is a research method that sequentially combines mixed methodology, with the first stage using quantitative methods and the second stage using qualitative methods (Sugiyono, 2013).

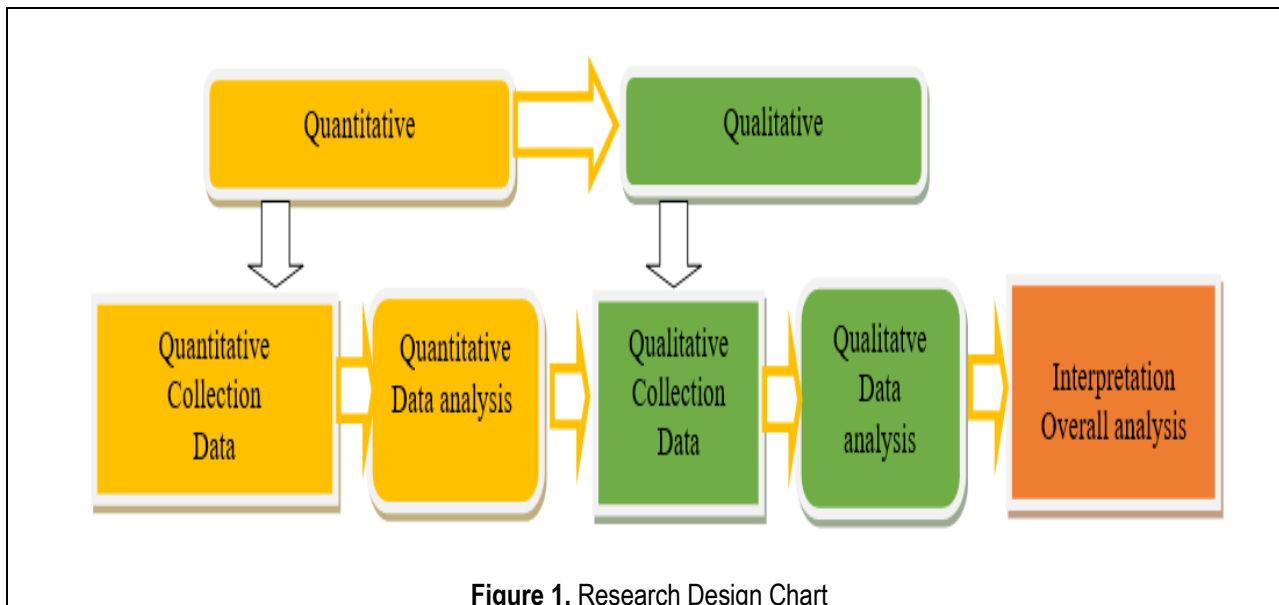


Figure 1. Research Design Chart

Quantitative procedures are used to prove, deepen, enlarge, weaken, and invalidate the quantitative data that has been gathered. Qualitative methods are used to obtain measurable quantitative data that can be descriptive, comparative, and associative. In this research, the students' scores first analysed to see the improvement of the learning process during pandemic covid 19. Using the comparison of GPA before and after online learning, the researcher compare the fluctuation graph of the students' score. Quantitative research was conducted to see the level of students learning through their grades. After that, Qualitative research was conducted to determine the effectiveness of online learning to the improvement of their study. Qualitative approach was also used to determine student responses to the implementation of learning from home.

This research done in Namlea 1 High School Buru district, Maluku province. The collection of data taken both qualitative data and quantitative data will support each other. In this study data collection technique used is a questionnaire using a questionnaire via a google form which is given to students once a month to get an overview of the implementation of online learning during that month. Statistics test in the form of scores or GPA also used to analyse the students scores during online learning. Data analysis in mixed methods research is closely related with the chosen strategy. This analysis can be done based on a quantitative approach (descriptive and inferential analysis of numbers) and qualitative (thematic description and analysis of text or images), or between these two approaches. The data analysis procedure in this study is to prepare the type of data to be analyzed, explore the data, analyze the data to answer research questions, display and validate the data. The data that has been obtained is analyzed using a quantitative and then qualitative approach. Furthermore, descriptive data in the form of numbers and percentages are then interpreted in sentences. The data then performed in data reduction, data display, conclusion drawing/verification.

### 3. Result and Discussion

In current conditions, visual learning styles seem to be the most widely practiced, but there are also kinesthetics, such as sports, prayer practices, dancing and science practices. There is also an auditory learning style, relying more on the listening process such as listening to a learning radio or sound recording. One part of today's learning style is video. To bridge the meeting, many teachers use video conferencing instead of face-to-face in class. However, quite a lot of teachers also use audio-visual learning videos in providing learning to students at home. And the provision of this kind of learning material is considered very good and quite influential for student learning outcomes.

The results obtained from several statements regarding online learning activities to Namlea 1 High School Students can be seen that as many as 23 students experienced an increase compared to the semester before the pandemic occurred. This can be seen from table 1 which illustrates that there was an increase in grades compared to the semester before the pandemic.

**Table 1.** Comparison of GPA before and When It Occurs

GPA goes up	26 people	89.6%
GPA down	3 person	3.7%
GPA permanent	23 person	7.4%

From the table above, it can be seen that the students GPA had significantly improved during online learning. Most of the students have a higher score and only 3.7% of the students that experience a decline in grades. It means that learning media that utilizes Information Technology and Communication (ICT) to support online learning, such as media (platforms) Google Classroom, Edmodo, Zenius, Zoom Meeting and others can indeed improve the teaching and learning process so that student scores also increase significantly. For approximately three months distance learning took place, which resulted in teachers and students not having face-to-face meetings in class but learning through online media. It is known that teachers always do online learning as seen in table 2 as many as 51.9% of students answered strongly agree that teachers always use online media during lectures during the pandemic.

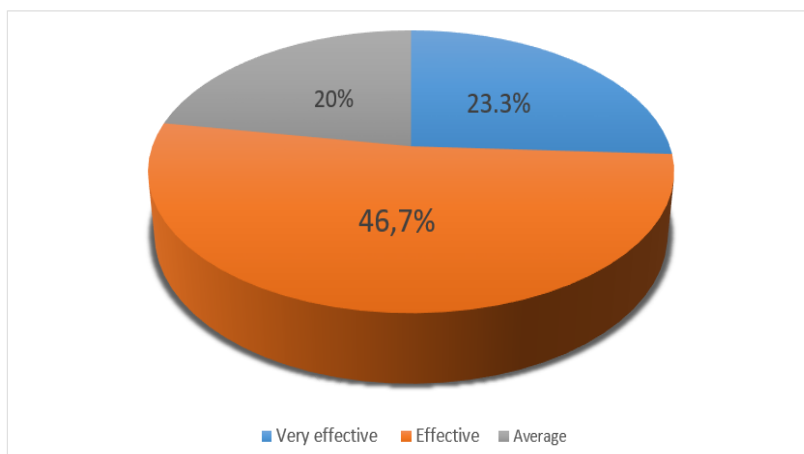
**Table 2.** Student Responses Regarding the Use of Online Media When Lecture Period Pandemic

Teachers always use online media during the learning process during the pandemic	
Student Answer	
Strongly disagree	0
Do not agree	2.2
Neutral	12.6
Agree	33.3
Strongly agree	51.9

Apart from the intensity of teachers using online media when learning, the characteristics of the subjects are in accordance with the media used by the teacher, as shown in table 3 as many as 23% of students agree with the statement of conformity of the characteristics of the subjects with the online media used. Although teachers always conduct online learning and are adapted to the characteristics of the subject, many students feel they do not have high motivation to carry out the learning process, this makes students' understanding levels low. It can be seen in tables 4 and 5. While in table 5 there are as many as 38.5% of students answered disagree with the statement that it is easier for students to understand the material by using online media.

**Table 3.** Compatibility of Subject Characteristics with the Media Used

Teachers use online media with good, according to Subject characteristics	
Student answers	
Strongly disagree	1.5
Do not agree	6.7
Neutral	40
Agree	43
Strongly agree	8.9



**Figure 2.** Online Learning Effectiveness Assessment

Students acknowledge the reality that work from home is currently being introduced, necessitating the use of online learning. Students ranked online media learning as highly effective (23.3%), effective (46.7%), and ordinary (20 percent). Although some students believe that online learning is ineffective.

Students with a high level of excitement for studying and completing assignments can benefit from the usage of online media in online learning. The findings revealed that online media has a substantial impact on student motivation. The usage of e-learning learning media has a good and significant effect on student learning motivation, and it is quite successful in improving the quality of learning because the learning process is not limited to one time and one location.

**Table 4.** Student Learning Motivation When Using Media *On line*

I have a higher motivation in doing the Learning Process because I use online media	
Student Answer	
Strongly disagree	8.1
Do not agree	25.2
Neutral	43.7
Agree	17
Strongly agree	5.9

For approximately 1 year distance learning took place, which resulted in teachers and students not doing face-to-face in class but doing learning through online media. It is known that teachers always do online learning as seen in table 2 as many as 51.9% of students answered strongly agree that teachers always use online media during lectures during the pandemic.

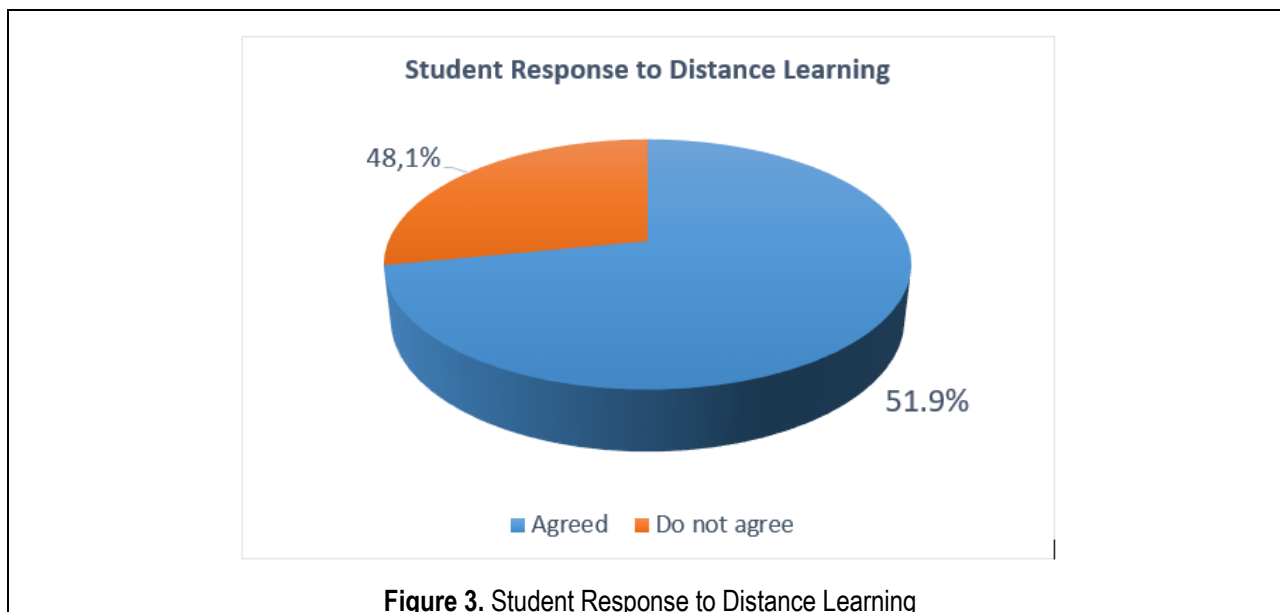


Figure 3. Student Response to Distance Learning

According to the pie chart above, students prefer Google Classroom as the top online learning medium. The usage of Google Classroom as a learning medium had a favorable impact on Namlea high school students' learning results, interest and motivation in studying, and the development of innovative attitudes. Because entire teaching materials are available on Google Classroom with its capabilities, it can raise interest and motivation. This platform allows students to enjoy the learning process, making it easier for them to remember the material's substance. This learning approach also has advantages in that the learning process is not constrained by place or time, and that it can draw on a variety of resources presently available on the web. and teaching materials are relatively easy to update. In addition, it can increase the independence of students in the learning process. As a result, the media online learning during pandemic covid 19 is regarded efisien for students enjoy the learning and their grades are improving.

#### 4. Conclusion

The results of the study revealed that online learning media in the teaching and learning process had a fairly positive impact. There is an improvement in the students' GPA after the application of online media learning during the pandemic covid 19. It is also showed that learning interactions can run optimally if there are learning managers (teachers), learning resources, learning subjects, interactions between teachers/teachers. Learning management can be done by the teacher, so that the teacher provides an active role in the learning system, including e-learning. Through the discussion/forum method, teachers and students can interact directly, making it easier for students in the online learning process. Therefore, technological advances have a major impact on the development of education, educators use it to facilitate the teaching and learning process and improve the quality of education. Moreover, the current era is facing the Covid 19 pandemic. In the teaching and learning process implemented in SMA in Buru Regency, the use of online media learning brings advantages to students understanding which is indicated by an increase in the score of gpa. the application of online learning is also quite effective to student achievement results. Students accept that work from home is currently being introduced, which necessitates the use of online learning. Students ranked online media learning as highly effective (23.3 %), effective (46.7 %), and ordinary (20 %). However, some students believe that online learning is inefficient.

#### 5. Acknowledgment

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