

## Effectiveness Online Learning at Biology Subject in Student's Perception at Senior High School at Muko Muko

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### ARTICLE INFO

#### *Keywords:*

Covid -19 Pandemic;  
Student's Perception;  
Effectiveness;  
WhatsApp;  
Biology Learning

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#### *Article history:*

Received 2022-08-14

Revised 2022-11-12

Accepted 2022-01-17

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### ABSTRACT

The Indonesian government tried to made many policies in covid – 19 pandemic. For example, Social distancing in big Scale (PSBB), Work From Home (WFH) and other policy in all of aspect included of education. So that learning activity did by internet online in many platforms. This research aimed to knew how to student's perception and effectiveness in online learning at Biology Subject in Senior High schools at Ipuh, Muko - Muko. The types of research was Qualitative descriptive that described student's perception in used whatsApp at Biology Learning by online. The data collection technique in this study used a questionnaire. This data was description about student's perception toward used WhatsApp in Biology learning as learning media in covid – 19 pandemic. Its data was took from observation, Questionnaire and interview. Data was taken by Google form application and shared in Whatsapp group. Its Data was analyzed by descriptive. The conclusion of this research was student's perception in biology learning by using WhatsApp as media during the Covid 19 pandemic showed negative respons.

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## 1. INTRODUCTION

The development of information and communication technology in the Industry 4.0 era has a great influence on the teaching and learning process. Easy access to technology that has been used by teachers to improve the quality of education. Information technology can be accepted as a medium in carrying out the educational process, including helping the teaching and learning process, which also involves searching for references and sources of information (Wekke & Hamid, 2013).

In the industrial era 4.0 digital technology can have a negative impact on the world of education if its use is not appropriate. Therefore, understanding the principles and factors that affect the effectiveness of digital technology in learning is something that is very important for an educator

(Putrawangsa & Hasanah, 2018). Furthermore, Harto (2018) emphasized that an educator is required to have four competencies in order to be able to use digital technology effectively. First, an educator must understand and be able to use digital technology and its application. Second, having leadership competencies that are able to direct students to have an understanding of technology. Third, have the ability to accurately predict the direction of the turmoil of change and strategic steps to deal with it. Fourth, having competence in controlling oneself from all turbulence of change, and being able to deal with it by generating ideas, innovation, and creativity.

However, since the impact of the corona virus disease 2019 (Covid-19) outbreak which has hit 215 countries in the world, it has presented its own challenges for educational institutions, especially universities. To fight Covid-19, the government has prohibited crowding, social distancing and physical distancing, wearing masks and always washing hands (Firman, F., & Rahayu, S., 2020). The online learning system (on the network) is a learning system without face to face directly between teachers and students but is carried out online using the internet network. Teachers must ensure that teaching and learning activities continue, even though students are at home. The solution, teachers are required to be able to design learning media as an innovation by utilizing online media (online). This is in accordance with the decision of the Minister of Education and Culture of the Republic of Indonesia regarding Circular Letter Number 4 of 2020 concerning the Implementation of Educational Policies in the Emergency Period for the Spread of Corona Virus Disease (COVID-19).

There are many media used for online learning. Various platforms have been providing this service for a long time. For example Google Classroom, Learning House, WhatsApp grup, Edmodo, Ruang Guru, Zenius, Google Suite for Education, Microsoft Office 365 for Education, Your School, Smart Class. This is what is called a microblogging platform (Basori, 2013). As an effort by the government to prevent the impact of the Covid-19 pandemic, the government issued a policy so that schools were closed and students began to apply online or online-based learning methods. This government policy has been implemented in several provinces in Indonesia, especially in Ipuh Sub-district, Mukomuko district, where several cities in Indonesia have adopted policies to reduce activities involving groups of people/masses, both offices and schools. In this case, the regent of Mukomuko took the following steps: He urges schools from kindergarten, elementary, junior high, high school to do learning at home.

The application of online learning in Ipuh District, Mukomuko Regency has been going on for 1 semester. The results of field observations, many students complain about online learning such as internet limitations. So that researchers are interested in researching the effectiveness of online-based Biology learning in the view of high school students in Ipuh District, Mukomuko Regency, schools were closed in March 2020 amid the Covid-19 social distancing policy, many students had to study from home making their education a mess. And schools do WFH "Work From Home" where the learning process is carried out at their respective homes. The teachers at schools do WhatsApp Group media to make it easier to upload biology learning materials online. The teacher does the KBM process at home and gives assignments via WhatsApp Groups. In the implementation of online learning there are many obstacles such as: Limited internet quota and signal interference. The advantages of using WhatsApp media are that it is easy to use by students so that the learning process goes well and students understand the material provided by the teacher through WhatsApp media.

Based on the background above, the question of this research is how students perceive the use of WA social media when learning biology online during the Covid-19 pandemic. In general, the purpose of this study was to determine students' perceptions of using WA social media during a pandemic. Practically, this research is expected to be useful for teachers, as input in implementing online-based biology learning to be more effective. For students, it is expected to increase effectiveness in learning.

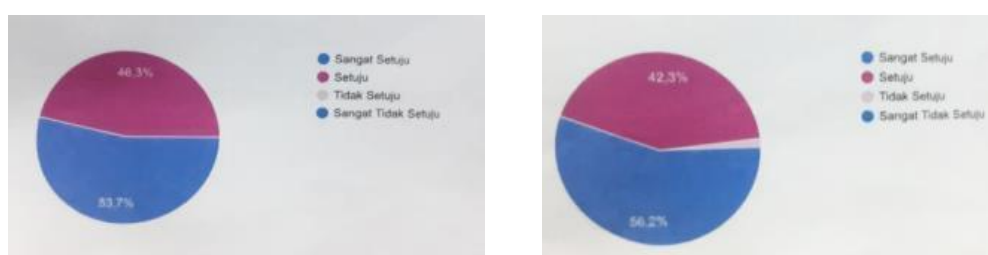
## 2. METHODS

This study uses a qualitative approach with a descriptive type of research. In this study, researchers will describe students' perceptions of the use of WhatsApp social media during online learning during the Covid-19 pandemic. Sources of research data are students who use WhatsApp in online learning taken via the Google Forms application link based on filling out the questionnaire that has been provided and sent via WhatsApp in the form of a link and also through interviews. In this study, data can be obtained from students in the field of biology education at SMA Ipuh District, Mukomuko Regency. Data collection techniques using observation, and interviews. The research subjects were determined by using purposive sampling technique where the research subjects were selected according to the research objectives. The standard of data validity in qualitative research refers to the standards of credibility, transferability, dependability, and confirmability. The data analysis technique used is descriptive qualitative analysis while the data processing steps are data reduction, data display, and conclusions and data verification.

## 3. FINDINGS AND DISCUSSION

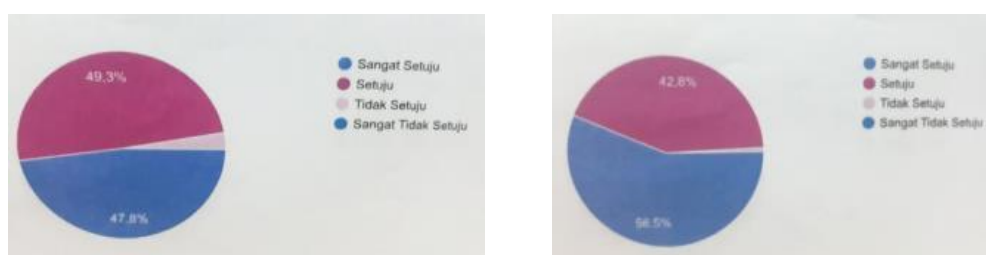
### *Student's perception toward biology learning based on Whatsapp online*

There were several perceptions from Senior High School student in Ipuh, Muko – Muko by used google form application through whatsapp.



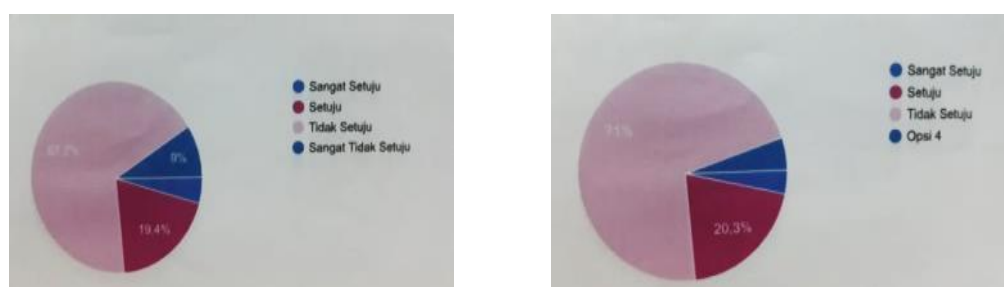
Picture 1. Student's perception in SMA N 08 (Left) and SMAN 02 (right) toward statement number 2

Statement number 1: "Teacher accepted student's opinion and gave a response from student's question" from student's answer there was 53,7% student of SMA N 08 Muko – muko did not agree and 56,2, % student of SMAN02 Muko – Muko did not agree.



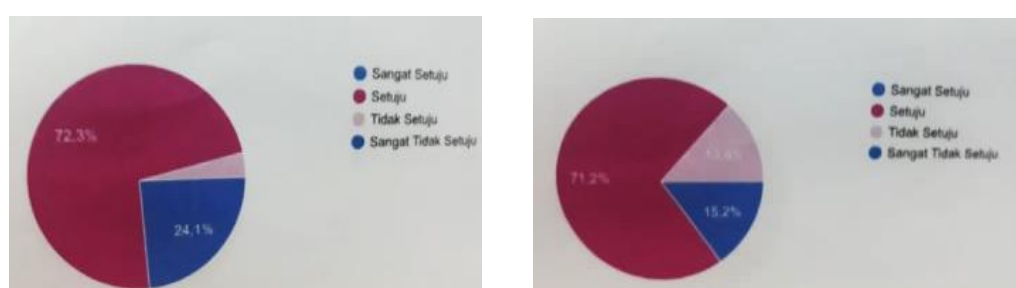
Picture 2. Student's perception in SMA N 08 (left), SMA N 02 toward statement number 04

Statement number 02 "I was very happy because teacher gave a response student's Question very well. From that picture, student's answer in SMA N 08 Muko – muko amount 47,8 % answered very disagree and 56,5 % students from SMA N02 Muko – Muko answered very disagree. Negative opinion was higher than positive opinion.

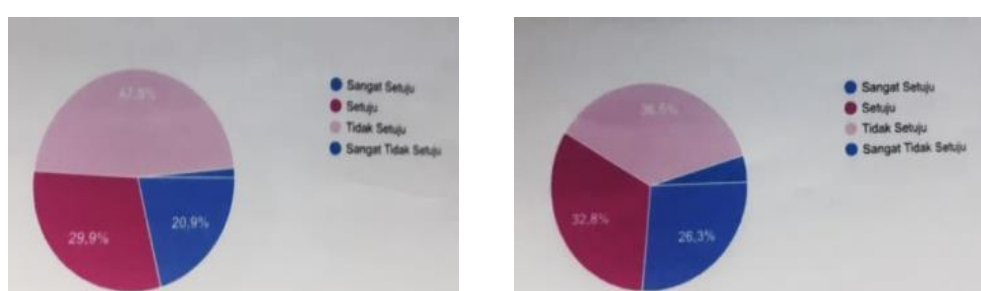


Picture 3. Perception from SMA N 08 student (left) SMA N 02 (right) toward question number 06

Statement number 4 “ I was lazy to Learned Biology because explanation did not understand” . There was 67,2 % student from SMA N 08 Muko – Muko answered disagree and there was 71 % student SMA N2 Muko – Muko amount 71% answered agree. From this interpretation, its conclusion that students more understand Biology learning.



Statement number 6 : “ Assignment from teacher helped me to understood biology learning” . There was 72,3 % answer from student of SMA N 08 Muko – Muko answered agree and 71,2% student of SMA N 02 Muko – muko answered disagree.



Statement number 7 “I was depressed because many assignment” There was 47,8% students of SMA N 08 Muko – Muko answered disagree and 36,5% students of SMA N 02 Muko – Muko answered disagree.

#### *Student effectiveness on WhatsApp online-based biology learning*

Online learning carried out at the Ipuh District High School, Muko- Muko Regency in an effort to broke the chain of the spread of Covid-19 used learning applications that could be accessed via the internet. With online learning, students were not constrained by time and place where they can took the lessons from their homes or anywhere. There were several questions through a questionnaire posed by researchers that were contained in the effectiveness of students in WhatsApp online biology learning.



Figure 6. Students' perceptions of SMA N 08 (left) SMAN2 (right) on Statement No. 5

Statement number 5 "The teacher provided material that was easy to understood so that I had no difficulty while studied online (WhatsApp)" from the answers above the answers of SMA N 08 Mukomuko students, 61.2% answered Agree, and 61.6% students at SMA N 02 Mukomuko answered Agree.



Figure 7. Student perceptions of SMA N 08 (left) SMAN2 (right) on Statement No. 8

Statement number 8 "I was more enthusiastic about learning biology based online (WhatsApp) compared to face-to-face learning" there was 64.2% of SMA N 08 Mukomuko students who answered Disagree, and 69.6% answered Disagree from SMA N 02 Mukomuko students , this was a higher negative score than a positive score.

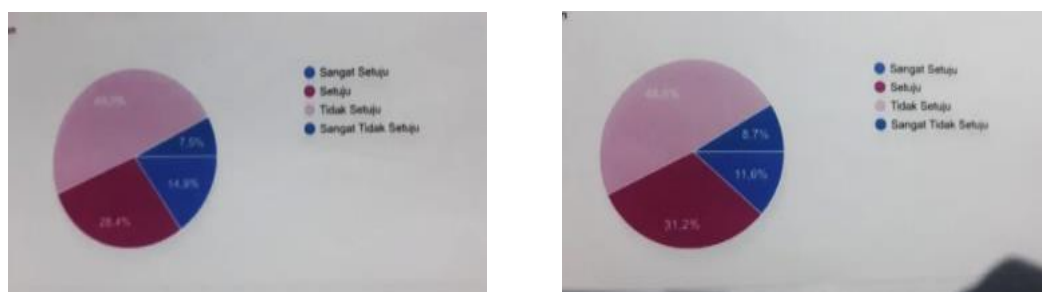
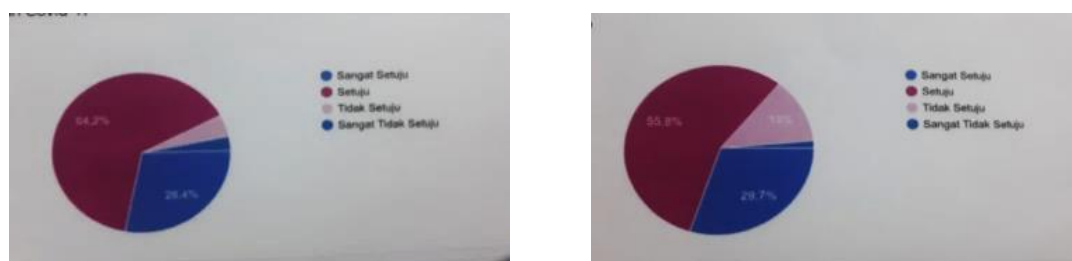


Figure 8. Student perceptions of SMA N 08 (left) SMAN2 (right) on Statement No. 9



Statement number 9 "I focused more on did online examination (WhatsApp)" from the answer above, the highest score was a negative score, 49.3% of SMA N 08 Mukmuko students answered Disagree, and 48.6% of SMA N 02 students Mukomuko answered Disagree.

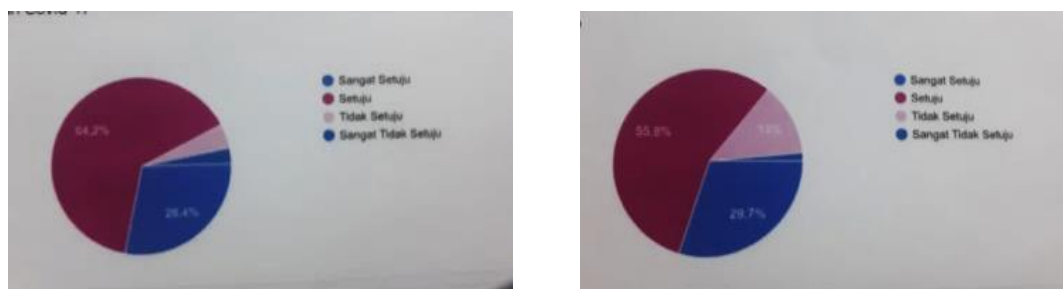


Figure 9. Student perceptions of SMA N 08 (left) SMAN2 (right) on Statement No. 10

Statement number 10 "The existence of online learning (WhatsApp) made me safe from the Covid-19 outbreak" from the answers above SMA N 08 Mukomuko students answered 55.8% Agree, and SMA N 02 Mukomuko students answered 64.2% Agree, got concluded from the highest score, namely the positive score was higher than the negative.

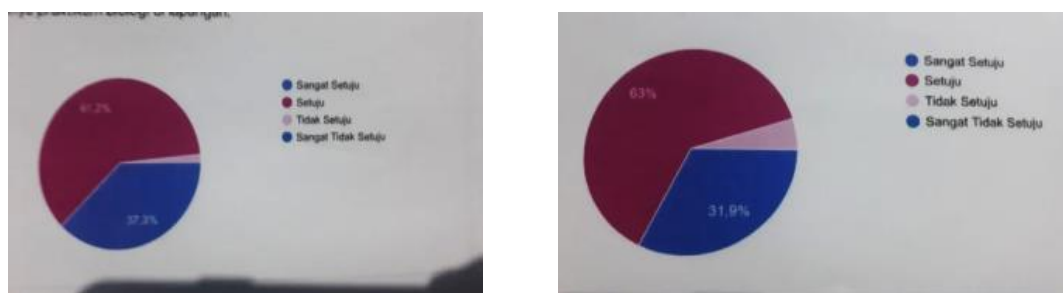


Figure 10. Students' perceptions of SMA N 08 (left) SMAN2 (right) on Statement No. 11

Statement number 11 "I was very sad because the Covid-19 outbreak has hampered biology practicum in the field" the answer above had the highest score, namely a positive score, SMA N 08 Mukomuko 61.2% answered Agree, and 63% students at SMA N 02 Mukomuko answered Agree.

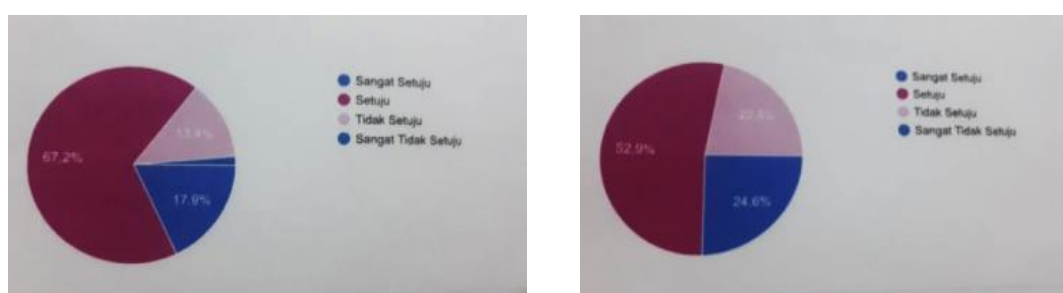


Figure 11. Percentage on the Effectiveness of SMA N 08 (left) SMAN2 (right) students on Statement No. 12

Statement number 12 "I did not understand the explanation given by the teacher during online-based learning (WhatsApp)" from the score above, the highest was a positive score compared to a negative score, there are 67.2% of SMA N 08 Mukomuko students answered Agree, and 52.9% SMA N 02 Mukomuko students answered Agree.

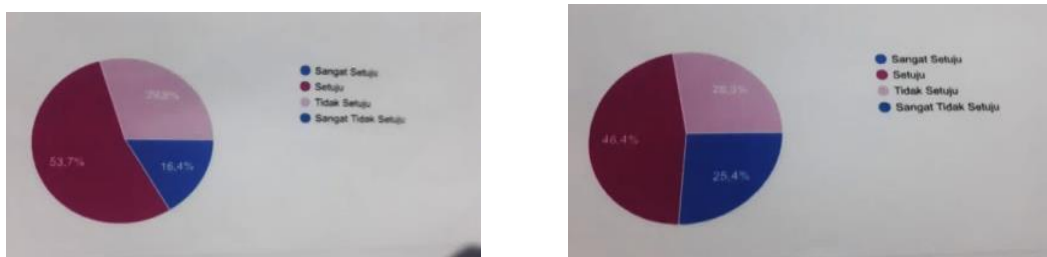


Figure 12. Percentage Regarding the Effectiveness of SMA N 08 (left) SMAN2 (right) students on Statement No. 13

Statement number 13 "I found it very difficult to understand the material during online-based biology learning (WhatsApp)" can be seen from the picture above the highest score was a positive score, SMA N 08 N Mukomuko students answered 53.7% Agree, and SMA N 02 Mukomuko answered 46.4% Agree.

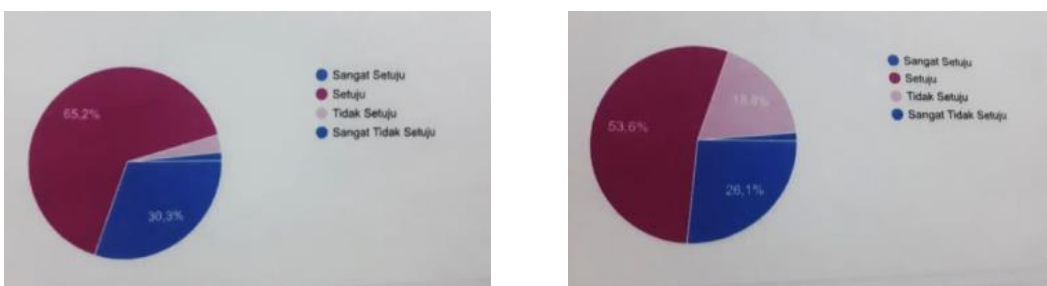


Figure 13. Percentage Regarding the Effectiveness of SMA N 08 (left) SMAN2 (right) students on Statement No. 14

Statement number 14 "Online-based biology learning (WhatsApp) was disrupted due to limited internet access" from the picture above, the highest score was a positive score. The answers of SMA N 08 Mukomuko students 65.2% answered Agree, and SMA N 02 Mukomuko students answered 53.6% answered Agree.

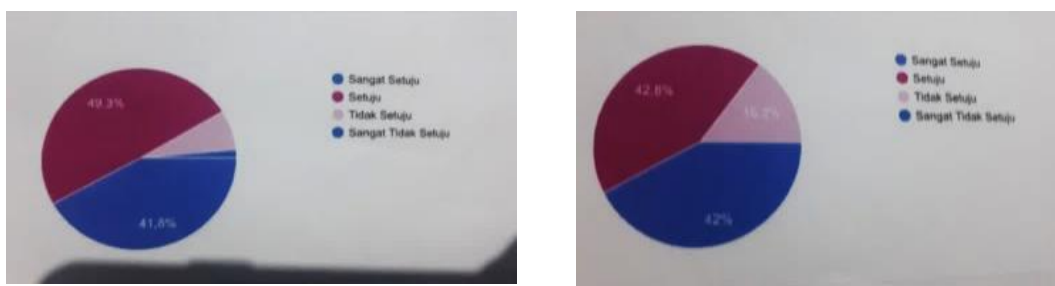


Figure 14. Percentage Regarding the Effectiveness of SMA N 08 (left) SMAN2 (right) students on Statement No. 15

Question number 15 "I felt anxious about losing internet access during online-based exams (WhatsApp)" from the results of the student answers above, there is a higher positive score than a negative score, 49.3% of SMA N 08 Mukomuko students answered Agree and 42.8% of SMA N 02 Mukomuko students answered Agree.

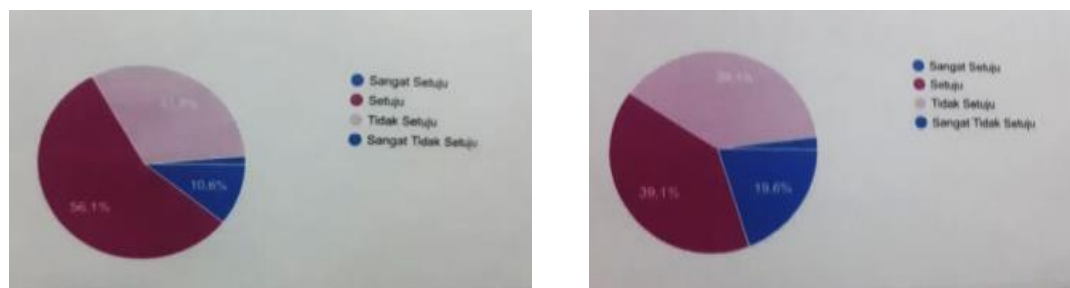


Figure 15. Percentage Regarding the Effectiveness of SMA N 08 (left) SMAN2 (right) students on Statement No. 16

Statement number 16 "Online-based biology learning (WhatsApp) bothers me because it costs more" from the answers of SMA N 08 students Mukomuko answered 56.1% Agree, and SMA N 02 Mukomuko students answered 39.1% answered Agree, from student answers SMA N 02 Mukomuko had the same score, namely the same positive and negative scores. But with the scores obtained by the students of SMA N 08 Mukomuko, many answered Agree.

### Discussion

Student perception was defined as the result of different points of view in sensing. There was those who perceived that something was good or positive or negative perceptions that would affected human actions. Student perceptions were defined as the result of different points of view in sensing. There was those who perceived that something was good or positive perceptions or negative perceptions that affected visible or real human actions. This indicates that each individual had a different point of view or perception even though they were in the same learning conditions because the stimuli received may be different and interpreted in different ways. The statement was supported by research by Saifuddin (2016) that perception did not only influence by objective characteristics but also expectations and previous experiences. When learners got a stimulus, they tend to compare and match the stimulus with the concept or experience in memory. In the process, they also carried out a matching process with their expectations or ideal description of a certain condition or situation. Based on statements from several students' answers about perceptions and effectiveness. The teacher accepted student opinions and responded to student statements. There was an answer to statement number 1 on Google forms, students answered "Strongly Disagree" based on the highest score, 53.7% of students answered SMA N 08 Mukomuko, and 56.2% of the rest of SMA N 02 Mukomuko. This can be caused by several obstacles, namely unstable internet connections, then the home environment of students and teachers did not conducive, and sometimes there was students who did not respond and did not understand what the teacher was explaining. From some of these obstacles, it made it difficult for students to accepted and responded to questions from the teacher.

Hendrawan (2017) Students in the teaching and learning process often had student unresponsiveness to what was conveyed by the teacher in the delivery of material or stimulus provided by a teacher which results in students being less able to understood and explained what was conveyed. From statement number 2 the highest score of student answers was "Strongly Disagree" with 47.8% students of SMA N 08 Mukomuko and 56.5% answers from students of SMA N 02 Mukomuko. It can be concluded that students were not agree, this was the same as answer number 1, with many obstacles in implementing WhatsApp online-based schools, one example was that teachers found it difficult to respond to student questions because many students were in remote areas far from the reached of internet access and limited internet quota. Teachers as one element of education must had the ability to understood how students learned and the ability to organized a learning process that was able to developed the abilities and character forms of students. To be able to understood the learning process that occurred in students, teachers need to master the nature and basic concepts of learning. By mastering the nature and basic concepts of learning, teachers were able to applied them in learning activities, because the main function of learning facilitated the growth and development of learning in students. Mufuda, Elfadiany (2015).



Students' perceptions of statement number 4, the highest score was 67.2% of SMA N 08 Mukomuko answered "Disagree" and 71% of students of SMA N 02 Mukomuko. It can be categorized that learning biology was very important in everyday life and has many benefits such as: knowing the structure and function of human organs, studying various types of living things that exist, studying the environment in which humans live and those in the natural surroundings. From the students' answers, students easily learn biology because the learning is easy to understand. This is also supported by the article (The Program for International Student Assessment, PISA, 2007, p.12) that Biology is one of the science subjects that is very important and related to everyday life. PISA states that understanding science is an important weapon for individuals to achieve their goals. There was a statement number 6 in the questionnaire distributed through Google Forms, the highest score from the student's answer was "Agree" based on the answers from students of SMA N 08 Mukomuko 72.3% and 71.2% of SMA N 02 Mukomuko. This can be categorized that the tasks given by the teacher can help students learn and better understand the material given by the teacher. And make students responsible for the tasks given by the teacher, train students to independently seek information and solutions to a problem, do assignments to help students learn more than what can be taught in school. The above question was supported by Peranti (2020) that the teacher was tasked with educating, in its operationalization educating was a series of teaching processes, providing encouragement, praising, punishing, shaping the character of students. In this case, the teacher found out the success of the achievement and goals in giving assignments to students.

From statement number 7 students answered "Disagree" with the highest score of 47.8% students of SMA N 08 Mukomuko and 36.5% SMA N 02 Mukomuko. It can be concluded that students do not feel pressured by the many assignments given by the teacher. Because with the tasks given by the teacher, it made students better understand learning, made students active in learning, developed independence, and was more convincing and deepens about what has been learned, making students responsible and disciplined in doing assignments. The cause of the problem is due to the learning model and assignment model in normal times or there was no Covid-19 pandemic. Students also had difficulty carried out the duties of the teacher and are burdened with the tasks of the teacher. Ilham Rahardjo (2020) A fun learning model for students had 3 aspects consisting of (a) useful aspects, namely the assignment of studying at home to students had benefits for students, families, the surrounding environment, and even globally, with the benefit of motivating students because they felt the benefits or good to complete the task. (b) the problem-solving aspect was the task containing a problem-solving or solution to the problems of the house and the surrounding environment. For example cleaning the bedroom, tidying the bedroom, helping parents, and others. Tasks related to solutions can adjust the parents' profession, home conditions, students followed parental directions and here parents can act as teachers. (c) for the third or final aspect, the assignment to study at home had a contemporary element or was currently discussed/issued.

In effective learning there are two important things, namely the occurrence of learning in students and what teachers do to teach students. Teachers and students need to work together according to their respective roles. The important role of teachers and students in realizing learning effectiveness through effective learning is that teachers can achieve learning goals while students are able to achieve competencies in accordance with learning objectives, so that both can achieve the expected goals in learning activities (Briliannur Dwi C, Aisyah Amelia, Uswatun Hasanah, Abdy Mahesha Putra, 2021) From the students' answers about the statement of student effectiveness in WhatsApp online-based biology learning. The answer to statement number 3 regarding the question of student effectiveness in implementing biology learning through the WhatsApp application is that students answered "Agree" with the highest score of 56.7% answers from students of SMA N 08 Mukomuko, and 59.4% of SMA N 02 Mukomuko. It can be concluded that learning biology is easy to understand in everyday life and learn about other living things. This is in accordance with the statement of Khalifah (2013) that learning objectives are students' expectations of learning outcomes, so that in the learning process the teacher must explain and write the learning objectives on the blackboard so that students and teachers carry

out the learning process according to the objectives and so that students and teachers know what to be achieved in the learning process.

There is an answer to statement number 5, the highest score is 61.2% of SMA N 08 Mukomuko and 61.6% of students of SMA N 02 Mukomuko. based on answers from students who answered "Agree" with the teacher who provided easy-to-understand material so that students had no difficulty while learning via WhatsApp online. It can be concluded that learning biology is very easy to understand, the material is about everyday life and about the natural surroundings. Another example is about plants that are in school or in the home environment. Through online students can understand materials or see pictures of plants sent on WhatsApp media. This is also supported by the article Shen et al., (2018) Biology is the study of living things in our lives. Biology is a subject that must be mastered by students. However, students must be able to apply and understand the material explained by the teacher. The answer to statement number 8, 64.2% of SMA N 08 Mukomuko students answered "Disagree" as well as the answers from SMA N 02 Mukomuko students with a score of 69.6%. From these answers, students are more enthusiastic about learning face-to-face than learning biology through WhatsApp online. Because the most sophisticated internet will not be able to replace face-to-face learning, face-to-face learning students can directly ask the teacher what they do not understand without having to have internet network disturbances or internet quota limitations. Online learning activities according to (Fajrillah et al., 2020) are defined as a learning situation that is currently using a network, connected in a network, or a process that is connected to a larger system that occurs in a control with the internet network.

From statement number 9 there is the highest score that students answered "Disagree" 49.3% of students of SMA N 08 Mukomuko and 48.6% of SMA N 02 Mukomuko. It can be concluded that students do not focus on taking exams online through the WhatsApp application, this is because of the many interruptions to internet access, limited internet quota. According to Aji (2020) the final evaluation or student assessment can suffer losses because the learning targets that should be taught are not necessarily achieved in the online learning process due to time constraints. Students do not receive proper assessment or treatment of their abilities. There are answers from statement number 10 students answered "Agree" there are 55.8% students of SMA N 08 Mukomuko and 64.2% of SMA N 02 Mukomuko. can be categorized based on answers from students that students feel safe with online learning. because it can break the chain of spread of Covid-19 by not carrying out face-to-face learning which can cause crowds. Learning during this pandemic is done online or online. Online learning is a learning system by utilizing the internet network to conduct learning relationships (Sadikin et al., 2020). This is based on the Circulars of the Ministry of Education and Culture Number 2 of 2020 and Number 3 of 2020 regarding online learning and working from home with the aim of deciding the spread of Covid-19 (Sutriyani, 2020).

Student answers from statement number 11, the highest score is a positive score. With the answer "Agree" from 61.2% of SMA N 08 Mukomuko and 63% students of SMA N 02 Mukomuko. Since the Covid-19 pandemic has hampered students in carrying out face-to-face learning and hampered biology practicum in the field. Because the purpose of the practicum is to generate motivation to learn biology for students, to be able to develop basic skills in conducting experiments, to be a vehicle for learning scientific approaches, to be able to support the subject matter. This practical activity provides an opportunity for students to prove theories and even discover theories. And students expect practical work that goes directly to the field, so that students don't feel bored studying in class. Biology learning is part of science subjects where the knowledge learned is always evolving and can be understood using scientific methods such as practicum (Kemendikbud 2014). The biology learning process itself will be more effective if in the process each student is invited to feel the experience that is felt by himself is closely related to the practicum, therefore this is a challenge for biology teachers to be innovative and creative in providing material to students / students in the online learning process at the time of the Covid-19 pandemic. There are answers to statement number 12, students answered "Agree" from the

number of positive scores more than negative scores, 67.2% SMA N 08 sMukomuko and 52.9% students answered SMA N 02 Mukomuko.

It can be concluded from students' answers, students find it difficult to understand online learning through applications (WhatsApp), there are several obstacles, namely: slow internet network, expensive internet quota prices, limited access to computer and smartphone devices, many distractions at home, teachers and students still not yet proficient in using digital technology, difficult to be interactive, students playing around. This certainly makes it difficult for students to understand and ask the teacher about certain materials. As a result, the teaching and learning process becomes ineffective for students. Arifa (2020) Obstacles faced in implementing the distance learning process, among others, relate to the readiness of human resources, the lack of clear directions from local governments, the absence of an appropriate curriculum, and limited facilities and infrastructure, especially technology support and internet networks. The readiness of human resources including educators, students, and parental support is the most important part in the implementation of the distance learning process.

From the answers to statement number 13, there are 53.7% of students' answers to SMA N 08 Mukomuko and 46.4% SMA N 02 Mukomuko answering "Agree" this is a difficult student understanding of WhatsApp online-based biology learning, these are students who get bored quickly, with conditions a lot of sitting, less moving and one direction tends to cause students to get bored quickly. As a result, they end up running away using their cellphones to play games. Biology learning is learning that learns about the environment around us, by conducting practicals in the field or directly asking the teacher about material that students do not understand, can make students master the material and understand it more easily compared to online learning with many obstacles. This was done by Purwanto et al., (2020) stating that one of the obvious impacts was the learning difficulties experienced by students during the teaching and learning process at home. Students feel pressured when studying distance, because they feel compelled, especially coupled with inadequate facilities and infrastructure at home. Statement number 14 regarding the effectiveness of students in learning biology, students answered with the highest score, namely a positive score, namely "Agree", 65.2% answers from students of SMA N 08 Mukomuko and 53.6% of SMA N 02 Mukomuko. in the question clearly agrees because the implementation of online learning that has been carried out has experienced many obstacles, one of which is limited internet access, this causes students in remote areas to have difficulty accessing the internet, and the obstacle most felt by students is the limited internet quota. Because most students are all paid for by their parents, so buying a student internet quota must ask for it from parents, and not all have fees when students need it. In the implementation of online-based biology learning (WhatsApp) students are disturbed by these obstacles based on the highest score who answers agree. And it has always been the biggest reason for the limited internet access for students who carry out online learning. Supported by Darmawan's article (2011: 155) Online learning has advantages and disadvantages, as for the advantages of online learning, namely: it can engage in interaction between students and teachers, learning can be done from anywhere and anytime, can reach an unlimited distance, material can be stored by online.

Jamaluddin ddk, (2020) Obstacles in learning online systems, ranging from limited quotas, many assignments, limited IT assignments, unstable networks due to the condition of respondents in rural areas, late for school because they are not used to using online. Obstacles in learning online systems, ranging from limited quotas, many assignments, limited IT assignments, unstable networks due to the condition of respondents in rural areas, being late for school because they are not used to using online. Another alternative is that the teacher provides opportunities for students with low grades, assigns assignments so that they can help with low grades, the school provides quotas for students who take online exams. This is also supported by articles (Owusu-Fordjour et al., 2020; Sadikin & Hamidah, 2020; UNESCO, 2020c) stating that uneven internet access also hinders students from carrying out online implementation. Students who have access also complain about the usual amount that must be spent to get an internet data package. Based on the answers from the students' perceptions and effectiveness

above, it can be concluded that many students complain that limited internet access makes the implementation of biology learning ineffective. The learning system is only effective when giving assignments. Because of the many factors experienced by teachers and students in carrying out WhatsApp online-based biology learning. In addition, students are very difficult to understand and understand the material taught by the teacher because of the constraints of limited internet access. Other obstacles such as online learning make students bored and bored. The implementation of learning does not pay attention to methods, strategies, models or learning approaches that should be carried out by teachers in preparing learning. Students prefer to learn face-to-face compared to learning through online, because today's sophisticated technology cannot replace a face-to-face learning process that can directly ask questions and interact between teachers and students.

#### 4. CONCLUSION

Student's perception in biology learning by using WhatsApp as media during the Covid 19 pandemic showed negative responses. Student felt very bored. From the answers, 69.3% of students answered that they did not agree with the existence of online-based biology learning with online learning activities carried out during 3 months. And from the many obstacles in the process of implementing online learning that make students difficult and the online learning process becomes ineffective. Face-to-face schools cannot be replaced with any sophisticated technology, technological developments cannot replace the role of teachers in providing subject matter to students. The role of friendship and direct interaction between teachers and students cannot be replaced by any sophisticated technology, unless there are obstacles or obstacles such as the corona pandemic that is hitting the world today. Very central in this time of COVID-19 even though the distance is limited.

**Acknowledgments:** The author would like to thank the supervisors who have provided suggestions and materials in the completion of this article

**Conflicts of Interest:** the authors declare no conflict of interest

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