

Study of the Implementation of Online Biology Teaching at SMAN 06 Merangin during the Pandemic Period

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Abstract

The impact of the Covid-19 pandemic is felt in various sectors, including education, so that learning activities are limited by implementing online learning. Likewise with SMAN 06 Merangin. This study aims to obtain an overview of the implementation of online biology learning at SMAN 06 Merangin. The subject of this research is a biology teacher. Data was collected using interviews. Data analysis was performed using the Miles & Huberman analysis technique. The results of research on the implementation of biology learning at SMAN 06 Merangin show that (1) the lesson planning is carried out, namely: determining the application, recording conditions and student phone numbers, preparing online learning tools; (2) implementation of online learning, namely preliminary activities in the form of filling in attendance via Google Form, Google Classroom or Whatsapp and submitting learning objectives to Google Classroom or Whatsapp. The core activities are in the form of delivering material, question and answer sessions via Classroom or Whatsapp. Closing activities in the form of drawing conclusions and assignments; (3) evaluations of online learning, namely, assessment of knowledge seen from the results of assignments, discussion of questions, and online exams. Skills assessment is seen from the results of project assignments and online practicum. Meanwhile, the attitude value is seen from the presence. Weak supervision of students, lack of strong signals in remote areas, and not all students have Gadgets are obstacles in the implementation of online biology learning at SMAN 06 Merangin.

Abstrak

Dampak pandemi Covid-19 sangat terasa pada berbagai sektor, termasuk pendidikan, sehingga pembatasan aktivitas pembelajaran dengan menerapkan pembelajaran daring. Begitu juga dengan SMAN 06 Merangin. Penelitian ini bertujuan untuk memperoleh gambaran pelaksanaan pembelajaran biologi secara daring di SMAN 06 Merangin. Subjek penelitian ini adalah guru biologi. Data dikumpulkan dengan wawancara. Analisis data dilakukan menggunakan teknik analisis *Miles & Huberman*. Hasil penelitian terhadap pelaksanaan pembelajaran biologi berbasis daring di SMAN 06 Merangin menunjukkan bahwa (1) Perencanaan pembelajaran yang dilakukan meliputi: menentukan aplikasi, pendataan kondisi dan nomor telepon siswa, menyiapkan perangkat pembelajaran daring; (2) pelaksanaan pembelajaran daring terdiri dari kegiatan pendahuluan berupa mengisi absensi melalui *Google Form*, *Google Classroom* atau *Whatsapp* dan penyampaian tujuan pembelajaran pada *Google Classroom* atau *Whatsapp*. Kegiatan inti meliputi penyampaian materi, sesi tanya jawab melalui *Classroom* atau *Whatsapp*. Kegiatan penutup berupa penarikan kesimpulan dan penugasan; (3) evaluasi pembelajaran daring meliputi, penilaian pengetahuan, keterampilan dan sikap. Nilai pengetahuan diperoleh dari penilaian tugas, diskusi dan ujian *online*. Nilai keterampilan diperoleh dari tugas proyek dan praktikum *Online*. Sedangkan nilai sikap dilihat dari presensi. Lemahnya pengawasan terhadap siswa, kurang kuatnya sinyal di daerah pelosok dan tidak semua siswa memiliki *Gadget* menjadi kendala dalam pelaksanaan pembelajaran biologi secara daring di SMAN 06 Merangin.

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A. Introduction

In December, buckets of 2019 shocked the world on emerging issues and the spread of virus outbreaks Corona, by the WHO (World Health Organization) called Covid-19. The outbreak from Wuhan was first reported by China to the World Health Organization (WHO) on December 31, 2019. Coronaviruses (CoV) are viruses that cause flu to more severe diseases such as MERS-CoV (Middle East Respiratory Syndrome) and SARS-CoV (Severe Acute Respiratory Syndrome). Covid-19 is a new type of disease by a virus that was discovered in 2019 and has never been identified to attack the human body before.

Indonesia first confirmed the case of Covid-19 on March 2, 2020. The impact of this pandemic was felt in various sectors, including education. Records of UNESCO pages of more than 100 countries that have imposed restrictions on activities in school graduation. It made the world, including Indonesia, in a quandary. The consequence of this restriction is a change in the learning system from face-to-face to digital or online learning (Arora & Srinivasan, 2020). School administrators, students, parents, and especially teachers have to migrate to the online learning system, which is more commonly known by the term "learning in the network" or "Online Learning".

The online learning policy implemented by the school is, of course, part of the design for implementing the new normal scenario. After the issuance of Circular Letter No. 4 of 2020 about the Ministry of Education and Culture concerning the Implementation of Education Policies in the Emergency Period for the Spread of Covid-19, schools in Indonesia have started implementing online learning. A situation that worsened makes carbuncle Education Jambi Province SE No. 1312 about "Perpanjangan Jadwal Pelaksanaan Kegiatan Belajar dari Rumah dengan Menggunakan Sistem Daring/Luring dan Persiapan New Normal pada Satuan Pendidikan".

Through a circular in response to the Covid-19 pandemic, which states that all activities in schools, including the learning process in any subject, are carried out at home, including learning biology. Biology learning that requires direct interaction has turned into online learning and teachers continue to pay attention to the condition of students and access gaps or facilities at home. The conclusion from the circular is that teachers can choose various types of methods and applications as a means of connecting or accessing

teachers with students in learning at home and of course it is the teacher who manages how the online learning process is carried out. Teachers must be able to prepare lessons that will be carried out even though they have never done it online. The teachers at SMAN 06 Merangin have never conducted online learning, nor have the biology teachers.

The Government has prepared the implementation of methods and media to learn from home that has been listed on the SE Kemendikbud No. 15 of 2020. The teacher is to be able to perform online learning so that learning still happens. Not all teachers have adequate IT skills because many teachers do not understand the use of IT at the time of observation to carry out online learning starting from preparation, implementation, and evaluation. A teacher also be able to prepare the necessary tools such as lesson plans, Syllabus, RPP, LKPD, and others

Based on her call, researchers conducted a study to get an idea of the implementation of the teaching of biology at the time of the pandemic in SMAN 06 Merangin. The formulation of the research problem is how to prepare and implement online biology learning and what are the obstacles to online biology learning at SMAN 06 Merangin.

B. Materials and Method

The type of research used is descriptive qualitative research, data collection techniques in this study using interviews, observation, and documentation. The research instrument was in the form of closed interview guidelines, namely interviews with limited answers. Answers can be selected by the informant that "YES/NO" or "NO" while an open interview is an interview that gives the question given the opportunity of accession to the informant to argue and do not restrict the answer. The research subjects were the principal, biology teacher, and students of SMAN 06 Merangin who had carried out online learning.

The study began with an interview with the headmaster and continued with the biology teachers on the implementation learning at SMAN 06 Merangin. The aspects that were asked in the interview were: (1) Preparation; (2) Implementation; (3) Assessment; and (4) obstacle factors for learning biology online at SMAN 06 Merangin.

Analysis of research data was carried out using the analysis model of Miles and Huberman (1994). Analysis model is consistent of three stages, namely data reduction, data display, and conclusion

drawing and verification (Sadikin and Afreni, 2020).

The data reduction stage is the stage of collecting all the information needed from the results of the interview and then the data is grouped. The data display stage is the exposure of the data needed in research and discarding unnecessary data. Withdrawal and verification is the interpretation stage of research data to draw conclusions based on the phenomena obtained

Then the validity of the data is done by triangulation of sources and techniques. Triangulation is done by taking data from a different source that is so member research principals and biology teachers. Triangulation techniques such as observation, interviews, documentation studies were conducted for teachers of biology.

C. Results and Discussions

Adjusted to the rules given by the government, namely from the Ministry of Education and Culture in Circular No. 15 of 2020 concerning Guidelines for Organizing Learning from Home in an Emergency Period for the Spread of CoronaVirus Disease (Covid-19). Preparing learning in SMAN 06 Merangin is adjusted to the circumstances of learners and the condition of the school grounds. Here are the preparations schools are making for online learning:

1. Establishing the management of the teaching unit while studying from home, namely working and teaching from home and making a picket schedule to school as needed.
2. Establishing stem learning affordable for teachers and learners, that is Google Classroom, Whatsapp, and Video Conference depends on the ability of teachers.
3. Collecting student data, including students who have gadgets, addresses, phone numbers for parents, and student numbers that can be contacted.
4. Make a learning schedule in the form of an online schedule and lesson hours.
5. Guide teachers in the implementation of online learning.
6. Monitoring the teacher, which is done through learning reports that are collected every two weeks.

Preparation of online learning by four biology teachers. Based on the interview can be concluded that preparation instructional is online by a biology teacher at SMAN 06 Merangin include:

1. Prepare lesson plans for online biology learning.
2. Prepare teaching materials.

3. Determine the application that is used and can be reached by students. The school frees the teacher to choose the learning application used. However, applications that are widely used by biology teachers are Whatsapp, Google Classroom, and 1 teacher uses a Video Conference in the form of Google Meet.
4. Choose the type of learning media such as PDF, audio/video, PowerPoint, and so on.
5. Create a Whatsapp group. The group is used as a communication medium for teachers and students in the learning process.

Planning learning online by a biology teacher at SMAN 06 Merangin described above. This is by the online learning plan described by Bilfaqih and Qomarudin (2015) that online learning planning contains the selection of activities, rules of the game that can support answering essential questions by integrating various possible subjects and knowing the tools and materials that can be used. accessible to assist with project completion.

Preparation of online learning by students. Based on interviews and observations made to six students of class XI, it can be concluded that in general, the preparation for online learning carried out by students includes: borrowing textbooks from the school library and ensuring internet and network quotas.

Second, the implementation of learning by biology teachers at SMAN 06 Merangin. Based on the interviews and documentation studies conducted, it can be concluded that the implementation of online biology learning at SMAN 06 Merangin is mostly by the implementing regulations made by the government, however, some things are adapted to the conditions of students and schools. As explained in the Circular Letter of the Ministry of Education and Culture No. 15 of 2020 concerning Guidelines for Organizing Learning from Home in an Emergency Period for the Spread of CoronaVirus Disease (Covid-19) that "educators in the implementation of distance learning facilitate the implementation of distance learning that is adjusted and has been mutually agreed upon. schools and parents/guardians of students. The stages of online biology learning are generally the same as the face-to-face learning stages, namely the introduction, content, and closing stages. Following are the stages of online biology learning during the COVID-19 pandemic at SMAN 06 Merangin.

The introductory stage is (1) the teacher starts learning in Google Classroom by greeting; (2) fill in the attendance list, the attendance list is filled out by students through Google Classroom or Google Form. The teacher directs students to fill in attendance; (3) Teachers convey the purpose of

learning through teaching materials that were uploaded before the learning begins. Dila preliminary activities teacher learning in this online have to shortfall because there is no motivation. Motivation is very important, as described by Santrock, (2007) motivation is a process of encouragement, direction, and persistent behavior. This means that in online biology learning, students are not given the spirit of learning by the teacher.

Stage learning in the form of (1) teachers to share teaching materials that have been prepared beforehand in the form of Word, PDF, PowerPoint, or video. Students are directed to study the teaching materials. In the form of Powerpoint (Ppt), the teacher will explain every slide .ppt if, in the form of PowerPoint (Ppt), the teacher will give an explanation on each slide .ppt through a recorded voice. If in the form of video o, the teacher will direct students to watch the video o. In biology material that requires a practicum, the teacher makes a video tutorial on how to carry out the practicum which is then distributed, and students are assigned to carry out practicum according to the material being studied. On the account of each student, a notification of teaching materials uploaded by the teacher will appear. Students can download the teaching materials; (2) The teacher asks students again if some do not understand the explanation of the material. In this case, the teacher provides opportunities for students to ask and answer questions that arise in the learning process.

The final stage of learning includes: (1) The teacher delivers the discussion of the material after the question-and-answer session is completed; (2) The teacher gives assignments to students; (3) the teacher informs the learning material for the next meeting.

Third, evaluation of learning biology in daring covers three aspects including assessment of the knowledge, Grampian, and attitude. (1) Ratings knowledge, value knowledge on online lessons derived from the value of the task given questions, discussion t its responsibility and examinations; (2) Rating skills, the value of the skills acquired from the value assignment project in the form of video and assessment practicum Online who conducted the students at home; (3) assessment of attitudes, values attitudes p no learning online is obtained from the attendance and response s students when members responses in the Classroom or Whatsapp.

Implementation of learning biology is online at SMAN 06 Merangin in the preparation, implementation, and assessment of conformity with things that exist in learning online as described Khan BH (in Mustofa *et al.*, 2019) that the activity should have in learning online namely conveying learning objectives, encouraging memory,

providing learning instructions and providing feedback. This activity is already available in online biology learning at SMAN 06 Merangin

In implementing instructional biology is online certainly influenced by the conditions and means of learning, of h acyl research conducted, the assessment conducted biology teachers SMAN 06 Merangin yet structured and do not have a clear indicator, teachers grade based on observation. So according to the researcher, student learning outcomes are less convincing. This happens because the direction of the implementation of online learning by schools is not complete, only guidance during preparation and implementation.

Online biology learning is an alternative to learning activities during the Covid-19 pandemic. Online learning is carried out to prevent the spread of Covid-19. However, based on the results of the study, several obstacles become weaknesses in online learning. Obstacles of learning online are, among others: (1) not all learners have the Mobile adequate; (2) network which is not stable. It became an Obstacle process of learning the biological basis of ng in SMAN 06 Merangin. Still, there are few places where I have unstable Internet access, in addition to the electric current often disconnected so the Internet is impaired operator. Therefore, if in the learning process the electric current is cut off, the online learning process will be disrupted for some students who live far from Bangkok City.

For students who do not have mobile phones or networks in place, learners' quadruple mass was then disarmed while playing to parents/guardians to encourage their children to follow the learning offline. Learners are asked and driven to the right tasks to the school and given to the homeroom concerned. The homeroom teacher will be given a task to all the teacher's subjects. corresponding with SE Kemendikbud No. 15 of 2020 which states that the teaching and learning assignments schedules were taken and submitted by parents/guardians of students to teachers once a week at the end of the week.

D. Conclusion

Based on the research results can be concluded that in the process of Implementation online learning biology includes the preparation, implementation, and evaluation showed that (1) Planning learning include: determining the application, the data collection condition and phone numbers of students, preparing learning tools online; (2) the implementation of online learning consists of preliminary activities in the form of filling out the attendance list through Google Classroom, Google Form, or Whatsapp and conveying learning objectives on Whatsapp or Google Classroom. Core

activities include material delivery, question and answer sessions via Classroom or Whatsapp. Closing activities in the form of drawing conclusions and assignments; (3) evaluation of online learning includes assessment of knowledge, skills, and attitudes. The value of knowledge is obtained from the assessment of assignments, discussions, and online exams. The value of skills is obtained from project assignments and online practicums. Meanwhile, the attitude value is seen from the presence. Weak supervision of students, lack of strong signal in remote areas, and not all students have gadgets are obstacles in the implementation of online biology learning at SMAN 06 Merangin.

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