

The Effectiveness of Learning Biology in The New Normal Period at Senior High School 1 Lalolae

Efektivitas Pembelajaran Biologi pada Masa New Normal di SMA Negeri 1 Lalolae

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Abstract

This study aims to determine the effectiveness of learning biology during the new normal period at Senior High School 1 Lalolae. The effectiveness of learning can be seen from the activities of students during learning takes place, student responses to learning and students' mastery of concepts. This type of research is qualitative with observation and interview methods. The population of class XI students is 30 students. The instruments used in the research were observation sheets and interview sheets. Based on research on the observation sheet of the learning process, a score of 80 was obtained, the second meeting was 100 and the third meeting was scored 100. Meanwhile, the acquisition of the learning behavior observation sheet was obtained by a score of 83, the second meeting was 83 and the third meeting was scored 100. Then, the value of the learning outcomes was 100%. of the 30 students passed. So from these three aspects learning biology during the new normal period can be said to be effective.

Keywords: Learning effectiveness, biology learning, New Normal

Abstrak

Penelitian ini bertujuan untuk mengetahui efektivitas pembelajaran biologi pada masa new normal di SMA Negeri 1 Lalolae. Efektivitas pembelajaran dapat dilihat dari aktivitas siswa selama pembelajaran berlangsung, respon siswa terhadap pembelajaran dan penguasaan konsep siswa. Jenis penelitian ini yaitu kualitatif dengan metode observasi dan wawancara. Populasi siswa kelas XI berjumlah 30 siswa. Instrumen yang digunakan dalam penelitian yaitu lembar observasi dan lembar wawancara. Berdasarkan penelitian pada lembar obsevasi proses pembelajaran diperoleh skor 80, pertemuan kedua 100 dan pertemuan ketiga memperoleh skor 100. Sedangkan pada perolehan dari lembar observasi perilaku belajar diperoleh skor 83, pertemuan kedua 83 dan pertemuan ketiga memperoleh skor 100. Kemudian pada nilai hasil pembelajar 100% dari 30 orang siswa tersebut lulus. Jadi dari ketiga aspek tersebut pembelajaran biologi pada masa new normal dapat dikatakan efektif.

Kata kunci: Efektivitas pembelajaran, pembelajaran biologi, New Normal

Preliminary

Learning is a process by teachers to provide guidance, assistance, and direction to students with expertise in learning. In addition, there must be good interaction between students and teachers in learning. The existence of planned learning results in a learning process that is regulated in such a way as to produce the expected value properly and effectively (Miladanta et al., 2021; Santosa et al., 2020).

Effective learning is usually marked and measured by the level of achievement of goals by most students. Based on the level of achievement, it shows that several learning experiences are internally acceptable to students. According to Kyriacou, effective learning includes two main things. The first thing relates to the amount of time students devote during the lesson. The students are involved in the learning process to achieve the expected goals. The second thing relates to the actual quality of learning itself. The learning

process or interaction can occur between teachers and students, students, students, and learning resources (Makky et al., 2022; Roni Hamdani & Priatna, 2020).

Effective learning cannot be separated from quality learning because the quality of learning outcomes depends on the effectiveness of learning that occurs in the learning process itself. The learning process that is usually carried out is the interaction between teachers and students, students and students, as well as students with learning resources so that good learning is achieved to obtain the desired knowledge (Mustakim et al., 2021; Supriatna, 2021; Waton, 2021)

The impact of the Covid-19 pandemic has drastically changed the education system, both the pattern of interaction in learning and the learning system as a whole. Learning that occurs using online learning applications so that there is no direct interaction but online between students and their teachers (Cahyaningrum & Abidin, 2022; Hatmo, 2021; Muhassanah et al., 2022)

Following the Indonesian Minister of Education and Culture's decision to allow face-to-face schools in the 2021/2022 academic year with health protocols which are, of course, highly prioritized, Senior High School 1 Lalolae with the permission of the Ministry of Education and Culture and parents of students related to face-to-face learning experiments began to be implemented with a shift system. However, the shift system was removed with time, so learning returned to normal.

Changes in the learning system that are pretty drastic from offline to online and back to offline will affect various aspects of education, including the effectiveness of learning in class. It can be seen from the results of observations made at Senior High School 1 Lalolae where students experience difficulties during new normal learning, namely the lack of independence of students in a group study, students who are less active in asking questions, then the material must be repeated when face to face because there are still many students who do not understand the material when online so it is too late for other material to be learned. Moreover, learning biology is complex, and it contains Latin terms.

Based on these facts, the authors are interested in conducting a study that discusses how the effectiveness of learning biology in the new normal period is packaged in a study

entitled "Effectiveness of Learning Biology in the New Normal Period at Senior High School 1 Lalolae".

Methods

Types of research

This research used a descriptive qualitative approach. This type of research is a case study because researchers want to understand the effectiveness of biology learning in the New Normal period.

Time and Place of Research

This research was carried out in August-September 2022, which included collecting, analyzing, and compiling a research report. This research was conducted at Senior High School 1 Lalolae, Lalolae District, East Kolaka Regency, Southeast Sulawesi.

Research Subject

The subjects in this study were biology teachers, 30 students in class XI Science at Senior High School 1 Lalolae.

Procedure

The procedure of this research includes the following steps:

1. Conducting a visit to Senior High School 1 Lalolae asking for research permission and conducting initial observations.
2. Provide questions for conducting interviews with biology teachers and students of class XI IPA at Senior High School 1 Lalolae.
3. Carry out interviews
4. Provide questionnaires to be distributed to students of class XI IPA.
5. Collect the data that has been obtained.
6. Compile research results.

Data, Instruments, and Data Collection Techniques

The research instrument used in this study was the observation sheet on the effectiveness of biology learning. Furthermore, data collection techniques used are observation and documentation techniques. Researchers carried out observations by observing and recording the implementation of learning in class. The documents obtained from this study are the results of distributing observation sheets, student learning outcomes, documentation photos related to the research object.

Data Analysis Techniques

The writer used the (Miles & Huberman, 1994) model of data analysis techniques in this research. There are three series of activities carried out in data analysis consisting of as follows.

1. Data reduction. The data obtained by the author will be processed by summarizing, choosing main points, determining themes, and removing unnecessary things in research.
2. Presentation of data. The authors presented data as an organized description of the biology learning process during the New Normal period (Table 1). So that readers can easily understand the intent and results of the research.

Table 1. Standard Measures of learning effectiveness

Presentation	Effectiveness Level
<40	Very ineffective
40-59.99	Ineffective

60-79.99	Effective enough
>80	Very effective

$$\text{Presentation} = \frac{\text{Gain Score}}{\text{Data score}} \times 100 \%$$

Table 2. Learning outcome value and categories

Learning Outcome Value	Catagory
< 71	Not Completed
>71	Ccomplete

3. Conclude. Make conclusions based on the results of an analysis of how effective biology learning is during the New Normal period at SMA Negeri 1 Lalolae..

Research Results and Discussion

Based on the results of observations made by researchers, to determine the effectiveness of learning biology at Senior High School 1 Lalolae can be seen in table 3.

Table 3. Results of observation of the learning process

Observed aspects	Gain Score		
	Meeting 1	Meeting 2	Meeting 3
1	1	1	1
2	1	1	1
3	1	1	1
4	1	1	1
5	0	1	1
Total	4	5	5
Percentage	80	100	100
Category	Very effective	Very effective	Very effective

Table 5 shows the five aspects that are considered in the learning process, namely the aspect of the teacher providing overall material to students, the teacher providing learning motivation to students, the teacher explaining well the material being taught to students, the teacher holding question and answer interactions with students, and the teacher give assignments regarding the material being studied to students. From the five aspects, from the first meeting to the third meeting, it was seen that the learning was very effective and continued to improve, only in the first meeting did not reach 100% because, at the first meeting, the teacher did not give assignments to students. However, at the second and third meetings, all aspects were fulfilled.

Offline learning is learning that is always used in the learning process in class. The application of the offline learning model has good effectiveness in biology subjects because the application of face-to-face learning is a direct learning model and builds interaction and closeness between teachers and students as well as students and students and their environment. As for the effectiveness of face-to-face learning, the teacher can provide material by innovating from lectures to other learning methods so that the class becomes more active, supported by strategies, approaches, and methods applied in improving the classroom atmosphere to be lively and active because of direct interaction between the teacher and students. When students do not understand the

material, students will ask questions to the teacher, and when the teacher asks, students can answer questions from the teacher. In addition, face-to-face learning makes student learning activities more controlled during learning. With face-to-face learning, the teacher can directly assess the attitudes of students, starting from the liveliness, honesty, and enthusiasm of students in participating in the learning process (Astuti et al., 2019; Marsiding, 2021; Purnamasari et al., 2020).

The learning process for class XI IPA at the meeting I was 80 or in very effective criteria, while in meeting II, it was 100 or in

very effective criteria, and in meeting III, it was 100 or in very effective criteria. This result followed the opinion of (Lestari, 2014). The interaction of teaching and learning certainly influences an increase in education during the learning process. The intended interaction is a reciprocal relationship between teachers and students in the teaching and learning process.

The following observation is the observation of learning behavior. The results of the observation of learning behavior can be seen in Table 4.

Table 4. Observation results of learning behavior

Observed Aspects	Gain Score		
	Meeting 1	Meeting 2	Meeting 3
1	2	2	2
2	2	2	2
3	1	1	2
Total	5	5	6
Percentage	83	83	100
Category	Very effective	Very effective	Very effective

Based on Table 4, the results of observing learning behavior were obtained at three meetings. There are three aspects observed in learning behavior; namely, all students follow the rules given by the teacher in learning, all students act conductively when biology learning takes place, and all students play an active role in asking and answering questions asked to the teacher. At the first meeting, the percentage was obtained, namely 83%, and at the second meeting, namely 83%, and the third meeting was 100%.

Learning outcomes are educational goals when students participate in the teaching and learning process. Student learning outcomes in student biology subjects can exceed the KKM value limit set by the school. The KKM score in Senior High School 1 Lalolae is 71, with 30 students, with 100% achieving graduation certificates.

Learning outcomes are the final results achieved from the learning process following educational goals. Learning outcomes are measured to determine the achievement of educational goals so that learning outcomes must follow educational goals. All students have a complete category based on the average acquisition of biology learning outcomes using face-to-face learning (Darsono et al., 2020;

Khoiruddin & Sutiani, 2022; Nurlatifah et al., 2021).

Based on observations and data on student learning outcomes, which show the effectiveness of learning biology at Senior High School 1 Lalolae, included in the practical category. This result was caused by several things, one of which is that learning biology requires more visualization or explanation because some material is abstract and challenging for students to understand. So face-to-face learning during the New Normal period makes it easier for students to understand and explain directly to increase student understanding. This increased understanding has a good impact on student learning outcomes as well (Ilmi & Puspita, 2022; Nurlatifah et al., 2021; Purnamasari et al., 2020)

In addition, learning biology during the New Normal period at Senior High School 1 Lalolae can also be included in the practical category because students are more enthusiastic about learning. This result was shown in the observations where student participation in learning at each meeting is relatively high. This result can be caused because previously, learning was done online, and the supervision was still more relaxed than face-to-face. Besides that, learning in class with friends can be a separate motivation for students.

Conclusions and Suggestions

Conclusions

The conclusion obtained from this study is that the acquisition of the observation sheet of the learning process obtained a score of 80, and the second meeting and the third meeting obtained a score of 100. Meanwhile, acquiring the learning behavior observation sheet for the first and second meetings scored 83, and the third meeting obtained a 100. Then, 100% of the 30 students passed on the value of learning outcomes. So from these three aspects learning biology during the New Normal period can be said to be effective.

Suggestions

In further research, it can be carried out to examine other aspects outside of the effectiveness of learning after the Covid-19 pandemic.

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