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THE EFFECTIVENESS OF SCREENCAST-O-MATIC-BASED MEDIA IN IMPROVING CRITICAL THINKING SKILLS FOR STUDENTS OF THE STUDY PROGRAM PGSD FKIP UMSU

**Eko Febri Syahputra Siregar, Baihaqi Siddik Lubis,
Suci Perwita Sari, Ismail Hanif Batubara**

Universitas Muhammadiyah Sumatera Utara

Abstract--This study aims to determine the effectiveness of the screencast-o-matic-based learning model in lectures at the Elementary School Teacher Education Study Program (PGSD) FKIP UMSU. Screencast-o-matic-based media provides flexibility for students to access lectures without time limits and can be repeated. This research was conducted at the PGSD FKIP UMSU Study Program. The population in this study were 289 third semester students. The sample in this study were students of class 3 F as many as 21 students. The sampling technique was done by simple random sampling. The data collection that was carried out was by using tests in the form of quizzes and given before and after implementation. This study obtained the results, namely: 1) student pre-test results with an average score of 67.14 and the highest score was 95, while the lowest score was 50; 2) student post-test results with an average score of 81.67 and the highest score was 100, while the lowest score was 65; 3) screencast-o-matic-based media is effectively used in supporting online lectures to produce meaningful and quality online learning in the Study Program PGSD FKIP UMSU.

Keywords : Media, Screencast-o-matic dan Kemampuan Berpikir Kritis

INTRODUCTION

Lectures must be designed with the aim of developing the potential of students. Through lectures, students are required no longer just as passive individuals, but are required to be more active. Responding to this, lecturers are required to be more creative and innovative in designing fun lectures for students. This is considered important so that lectures are truly meaningful and students understand the benefits of the new or ongoing process. Talking about the meaning of lectures, of course, it cannot be separated from the three domains in the purpose of lectures. Cognitive aspects are no longer the sole choice in today's lectures. Lectures are not only oriented to the knowledge gained by students after implementation, but must be in line with affective and psychomotor aspects. Students must be able to master these three competencies in order to be able to answer global challenges(Siregar & Suci Perwita Sari, 2020). Learning activities organized by each teacher always start and lead the learning components that are written in the curriculum (Hardianto & Baharuddin, 2019). These three things go hand in hand without leaving any of them behind. Because education is not only targeting intelligence alone, but balanced with the appropriate character and skills. As the saying goes, that is what happens to someone who is smart but immoral and what happens to someone who is immoral but not smart. Then these two things will cause a dangerous situation and a helpless situation.

In order to address this, a lecturer must really have the creativity to produce the expected lectures. With online-based learning, lecturers, teachers, students and students must be able to use and utilize technology to carry out daily learning activities as a solution in learning in the era of the covid-19 pandemic (Agustina & Rusmana, 2019). The expected lectures are lectures that are adapted to the development and characteristics of students and are able to achieve the goals that

have been formulated, such as what is being hotly discussed, namely Merdeka Learning, Merdek Campus (MBKM). It should be understood that the indicator of the success of a lecture is the achievement of the lecture objectives contained in the lecture plan.

In several online lectures conducted at the Elementary School Teacher Education (PGSD) FKIP UMSU study program, it was found that students had not shown a high enthusiasm for learning. Online lectures are still limited to only delivering material and then considered complete without paying attention to the results to be achieved. The media used by lecturers is still limited to powerpoints or teaching materials in the form of files available in e-learning as well as several supporting journals without being followed by innovative learning media that can provide inspiration for prospective elementary school (SD) teacher students. Then, as a result of this, the activities carried out by students were just sitting in silence listening to the lecturer's explanation and then completing quizzes as a form of evaluation. During the online lectures, it was seen that some students were busy with other activities such as talking to people around them, joking. In the teaching and learning process, the most important thing is the way the lecturer delivers material that aims to attract the attention of students. fellow friends by not focusing on listening to the explanations made by the lecturer (Dewi, 2016).Online lectures are often identified with the number of assignments given to students, resulting in an ineffective lecture process (Widiyono, 2020). Quiz results obtained in lectures are not satisfactory. This is evidenced by the acquisition of student grades, namely out of 40 students who attended lectures, only 7 students scored in the good category (81-90) and the rest were in the sufficient category (71-80) and less (<70). For more details related to the acquisition of student results, it can be seen in the following table:

Table 1. Student Values

No.	Nilai	Jumlah
1.	91 – 100	0
2.	81 – 90	7
3.	71 – 80	12
4.	61 – 70	5
5.	<60	16
Jumlah Mahasiswa		**40**

This should not be left too long and there must be innovations made by lecturers in addressing this matter. Given the role of a lecturer in teaching students. One way that a lecturer can do in conducting lectures for prospective elementary school teachers is the application of lectures that are familiar with their lives later. Today, in the midst of a very dynamic era, technological movement cannot be avoided but must be adopted as a tool in lectures. The tool in question is as a medium in lectures. Media is an intermediate in lectures. Through the application of media, a lecturer no longer has to tell too much but can use the media to produce effective and efficient lectures.

The media in question is screencast-o-matic-based lecture media. Screencast-o-matic is an application that can record the activity of a computer or laptop screen as if it were a presentation, not only the screen but also the sound and activity of the individual who is explaining. Screenast-o-matic is software that can record all e-learning learning media into a video tutorial where lecturers can do learning as if in a lecture hall which can be used as a learning video and can be shared through various models such as on YouTube or blogs. (Dewi, 2016). This screencast-o-matic-based media can also be given background sound with interesting music so that it can attract students' interest. Screencas-o-matic can be given as online learning materials that can be accessed at any time, so that students can play repeatedly to strengthen their understanding. The screencast-o-matic application is a video editing application that is easy to use and free when downloaded (Nubatonis, 2021). By using screencast-o-matic media in learning,

it is hoped that the learning message will reach students more (Listiawati, 2019). In 21st century lectures like today, innovation in lectures is needed to produce students who are expected to have 4 skills, namely critical thinking, communication, collaboration and creativity. The application of 4C in learning if it is actually carried out in schools will have a tremendous impact on the nation's next generation to face the challenges of 21st century life (Sugiyarti et al., 2018). Through this media, it is hoped that a lecture climate can be formed and students can develop their potential.

RESEARCH METHOD

This type of research is qualitative. According to Sugiyono (2019:16) qualitative research is also referred to as an interpretive method because the research data is more related to the interpretation of the data found in the field. The purpose of this research is to prove the effectiveness of screencast-o-matic-based lecture media on students' critical thinking skills. The population in this study, namely the 3rd semester students of the Elementary School Teacher Education Study Program (PGSD) FKIP UMSU as many as 289 students. Based on this population, the researchers took a sample of 21 students in class 3 F. The sampling technique used is simple random sampling, which is taking samples from the population at random without regard to position or other factors in the population. The data collection technique in this research is using a test that is used to measure students' critical thinking skills. To determine the effectiveness of screencast-o-matic media in lectures, the researchers used pre-test and post-test.

FINDINGS AND DISCUSSION

a) *Pre-test Result*

This research started with pre-test activities. This activity is important to do to determine the students' initial abilities before conducting research actions. The results of the pre-test of class 3 A students of the PGSD FKIP UMSU study program are as follows:

Tabel 2. Hasil *Pre-tet* Mahasiswa

No. Urut	Jumlah Benar	Nilai
1	10	50
2	13	65
3	14	70
4	11	55
5	14	70
6	12	60
7	14	70
8	12	50
9	13	65
10	12	60
11	13	65
12	10	50
13	19	95
14	10	50
15	18	90
16	13	65
17	15	75
18	13	65
19	16	80
20	17	85
21	15	75
Jumlah		1410
Rata-rata		67,14

Nilai Maksimal	95
Nilai Minimal	50

Based on the table above, information can be obtained that the results of the pre-test of 21 students in class 3 F of the PGSD FKIP UMSU study program, namely the average value of 67.14 with the highest score of 95 as many as 1 student and the lowest score of 50 as many as 4 students, while the other students scored between the lowest and the highest scores. To more easily understand the distribution of scores obtained by all students, it can be seen in the diagram below :

Diagram 1. Perolehan *Pre-test* Mahasiswa
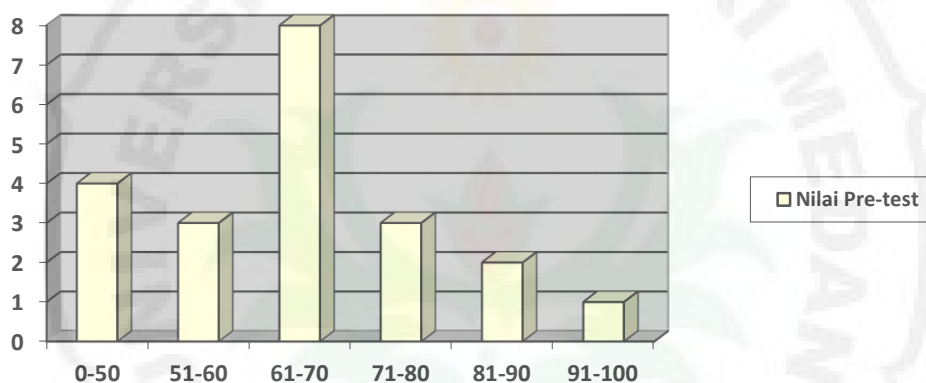
The diagram above provides an overview of the objects in this study, with the distribution of the scores, namely, 1) a range of values 0-50 as many as 4 students; 2) the score is 51-60 as many as 3 students; 3) a score of 61-70 as many as 8 students; 4) the value of 71-80 as many as 3 students; a score of 81-90 as many as 2 students and 6) a score of 91-100 as many as 1 student. After analyzing the results of the pre-test, the researchers prepared the implementation of the study based on the results of the pre-test obtained by the students.

b) *Post-test* Result

The post-test in this study was carried out after the lecture using screencast-o-matic. The questions or quizzes asked are in accordance with the objectives of the lecture that have been formulated and do not change the form of the questions given during the pre-test, only the position of the questions or the random distribution. For more details, the results of the post-test students of the PGSD FKIP UMSU study program can be seen in the following table :

Tabel 2. Hasil *Post-test* Mahasiswa

No. Urut	Jumlah Benar	Nilai
1	18	90
2	16	80
3	17	85
4	16	80
5	18	90
6	15	75
7	16	80
8	14	70
9	17	85
10	15	75
11	13	65

12	14	70
13	20	100
14	13	65
15	20	100
16	18	90
17	17	85
18	14	70
19	18	90
20	19	95
21	15	75
Jumlah		**1715**
Rata-rata		**81,67**
Nilai Maksimal		**100**
Nilai Minimal		**65**

Based on the post-test table above, information is obtained that the average value of students classically is 81.67 with the highest score being 100 as many as 2 students and the lowest score being 65 as many as 2 students. This result is greatly improved when viewed with the results of the pre-test. This can be seen from the distribution of values in the range that has been presented through the diagram below. For more details, please look at the following diagram.

Diagram 2. Perolehan *Post-test* Mahasiswa
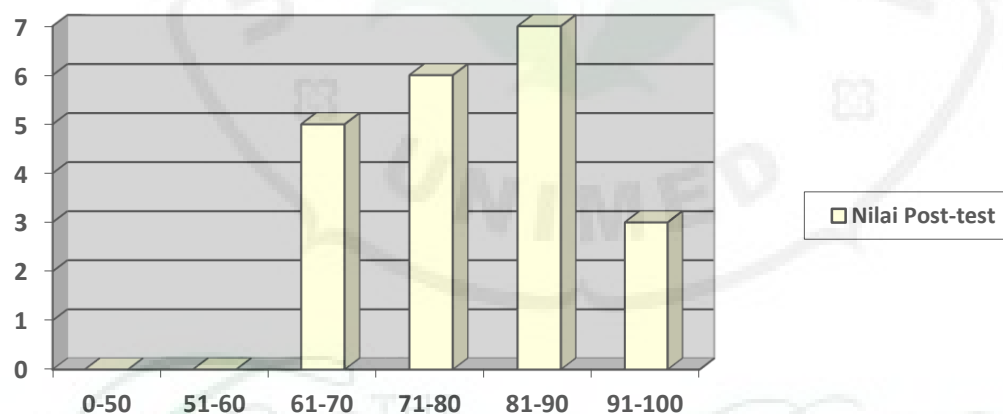
The diagram of the acquisition of post-test results above provides an overview of the objects in this study, with the distribution of the scores, namely, 1) the range of values 0-50 does not exist; 2) values 51-60 do not exist; 3) score 61-70 as many as 5 students; 4) score 71-80 as many as 6 students; 5) score 81-90 as many as 7 students and 6) score 91-100 as many as 3 students.

Discussion

In this study, the researcher used the stages of Experiencing, Interaction, Communication and Reflection (MIKiR) in research activities. The learning stages of "MiKiR" are 1) "Mi": orientation towards problems and constructing concepts, 2) "Ki": collaborative work to solve problems and create works, 3) "R": reflection with discussion and e-portfolio (Ninik Pujianti, Ernawati Saptaningrum, 2019) Pre-test results are the initial capital for researchers to focus on this research. Through these results, researchers can determine the focal point of the research activities carried out in order to answer the problem formulation that has been determined. This research was conducted to overcome the problems of lectures in schools with the help of

screencast-o-matic lecture media.

The first stage of MIKiR in this teaching and learning process is experiencing. At this stage, students are asked by researchers to observe the lecture media displayed by researchers. The media displayed is based on screencast-o-matic. The next stage is interaction. At this stage, students are asked to discuss the results of their observations with a group of friends in order to produce the same understanding. After going through this stage, the next step is communication. Communication is the stage of conveying the results of the discussion. Other students can provide questions or input on the results of group presentations that convey the results of the discussion. After presenting the results of the discussion, the researcher then asked the students to complete an exercise to measure the level of understanding of the students using screencast-o-matic. This exercise is also known as the post-test.

The last stage is reflection. This stage provides an opportunity for students individually to convey the learning experiences they have just passed. The proposed reflection points are; 1) how was your teaching and learning process today; 2) How do you feel?; 3) Which part do you understand?; 4) Which stages do you not understand?; and 5) What do you do to understand things you don't understand?. These questions were asked orally by inviting student representatives who wished to share their experiences.

In both data collection processes, namely during the pre-test and post-test, it was concluded that there was an increase in the score. When starting from the acquisition of the average score, the average score at the pre-test stage has a considerable difference, namely 67.14 (enough) and 81.67 (very high) at the post-test. In addition, there is an increase in the distribution in each value range. Therefore, it can be concluded that based on the research conducted, the screencst-o-matic-based learning model is very effectively applied during online lectures and can provide flexibility for students to access learning materials that have been recorded through the application any time, whenever and wherever students are.

CONCLUSION

Based on the results of the study, the conclusions that can be drawn in this study are: 1) The results of the pre-test students of the PGSD FKIP UMSU Study Program obtained an average score of 67.14 with the highest score being 95 and the lowest score being 50; 2) The results of the post-test students of the PGSD FKIP UMSU Study Program obtained information that the average score of students was 81.67 with the highest score being 100 and the lowest score being 65; 3) Screencast-o-matic-based lecture media is effectively used in online lectures to support meaningful and quality online learning in the PGSD FKIP UMSU Study Program.

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