Improving Science Learning Outcomes Through Online Learning Model E-Learning With Video Media

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Abstract:
This research is an effort to improve science learning outcomes through online learning model e-learning with video media for fourth-grade students of SD Negeri 3 Epil. This is because the teacher only gives assignments such as taking notes and reading does not guarantee that students will study at home. Giving assignments without any learning materials delivered by the teacher causes science learning outcomes to be still relatively low or still below the KBM, which is 75.
This study uses Classroom Action Research (CAR) in the form of implementing an e-learning model with video media to improve the learning outcomes of fourth-grade students at SD Negeri 3 Epil which consists of two cycles and each cycle consists of planning, implementing, observing, and reflecting. The research subjects were fourth-grade students of SD Negeri 3 Epil. The number of students is 29 students consisting of 10 male students and 19 female students.
The results showed that the application of the e-learning model with video media could improve science learning outcomes in fourth-grade students of SD Negeri 3 Epil. Judging from the results of pre-cycle students who completed KBM only 14 students (48.3%) and 15 students (51.7%) had not. In the first cycle there are 24 students (82.8%) who have completed and 5 students (17.2%) have not completed, and in the second cycle, there are 26 students (89.7%) who have completed and there are 3 students (10.3 %) unfinished. From the increase in learning outcomes, this classroom action research was stopped in cycle II because it had reached the classical completeness criteria, namely 85% of the total number of students who had completed learning and were declared successful in improving science learning outcomes in Grade IV students of SD Negeri 3 Epil Academic Year 2020/ 2021.

Keywords:
Science Learning Outcomes
Online Learning
Video Media
INTRODUCTION

Learning is a process to obtain changes in behavior as a result of an experience in interaction with the environment. As evidence of the result of the learning process is a behavior change. A person is said to be learning if there is a change in himself as a result of training and experience through interaction with the environment (Hamid, 2013: 5). An educator is required to be creative in his delivery, give the impression of students as well, create communication between students, and make students active during the learning process so that they can achieve learning objectives in the form of complete student learning outcomes.

At SD Negeri 3 Epil, the teaching and learning process has not yet been carried out due to the policy set by the government regarding the covid-19 outbreak to implement social restrictions to prevent the spread of the coronavirus, by implementing distance learning from their respective homes. The distance learning process has been carried out from March 16, 2021. The learning system that was originally face-to-face has become an online system or online by utilizing technology.

The problem that arises is that the teacher only gives assignments, such as taking notes and reading, which does not guarantee that students will study at home, making students less interested in taking part in Al-Qur'an Hadith Learning. So that learning outcomes are not achieved per the specified Minimum Learning Completeness (KBM). According to the results of an interview with one of the teachers of SD Negeri 3 Epil, there are still many students whose grades are below the KBM, namely 75, out of 36 students, 14 students completed (48.3%) and 15 students did not complete (51.7%). The low percentage of students who achieve Minimum Learning Mastery (KBM) shows that classical student learning outcomes in the class are still not optimal so they need to be improved.

Based on the problems above, it can be concluded that the low learning outcomes of science are due to less interesting learning, only giving assignments without any learning materials delivered by the teacher. A teacher must be creative in choosing learning media that is tailored to the characteristics of students. One way to overcome these problems is to apply an e-learning model with video media. This will make it easier for students to receive the material in detail and can be played over and over again to understand the material presented.

The e-learning model is a learning that is structured to use an electronic or computer system so that it can support the learning
process (Michael, 2013: 27), the distance learning process by combining principles in the learning process with technology (Chandrawati, 2010).

Media is an inseparable part to facilitate and realize the achievement of understanding of the material to students so that a teacher is expected to be able to use media to create an effective, creative, and fun learning atmosphere. While learning media is an inseparable part of conveying messages, can stimulate the thoughts, feelings, and willingness of students so that they can encourage the creation of a learning process in students (Kastolani, 2014: 222).

Video as an audio-visual medium that displays motion is increasingly popular in society. The message presented can be factual (important events or events, news) or fictitious (such as stories) that can be informative, educative, or instructional. Most movie assignments can be replaced by videos. But this does not mean that the video will replace the position of the film (Sadiman, 2012: 74).

THEORETICAL FRAMEWORK

Learning outcomes

Learning outcomes are several experiences obtained by students covering the cognitive, affective, and psychomotor domains. Learning is not only mastery of subject concepts, but also mastery of habits, perceptions, pleasures, interests, talents, social adjustments, various skills, aspirations, desires, and hopes (Rusman, 2015: 67). In simple terms, what is meant by student learning outcomes is the ability obtained by children after going through learning activities.

According to K. Brahim (in Susanto, 2013: 5) which states that learning outcomes can be interpreted as the level of success of students in studying subject matter at school which is expressed in scores obtained from test results to know a certain number of subject matter. Children who are successful in learning are those who succeed in achieving learning goals or instructional goals. To find out whether the learning outcomes achieved are following the desired goals, it can be known through evaluation.

Learning outcomes are the achievements of changes in student behavior that include the cognitive, affective, and psychomotor domains as the level of success of students in following the learning process or succeeding in achieving a goal.
E-Learning

E-Learning is an educational system or concept that utilizes information technology in the teaching and learning process. The following is the definition of e-learning according to experts:

1. Learning that is structured to use an electronic or computer system so that it can support the learning process (Michael, 2013: 27).
2. Distance learning process by combining principles in the learning process with technology (Chandrawati, 2010).

Some opinions of experts can be concluded that the e-learning model is a learning system that is carried out online or remotely that utilizes technology, especially with this outbreak that students and teachers are required to do distance learning without face to face so that learning activities will continue.

Teachers and schools use WhatsApp Groups as a learning process. In WhatsApp Groups, teachers and students will interact in learning. The teacher provides material by sending videos. Teachers and students can easily repeat learning materials through WhatsApp Groups.

According to Made Wena (2009: 213-214), the benefits of e-learning for students can make student learning activities more flexible, students can access learning at any time and repeatedly. In addition, students can also interact with the teacher at any time, so when there are questions or feel unclear students can directly ask the teacher.

Teachers and students interact by discussing or asking questions in WhatsApp Groups so that learning occurs according to goals or provides more practical information without face to face and does not have to travel to meet.

RESEARCH METHODOLOGY

This research design uses classroom action (CAR) which is designed in the form of implementing an e-learning model with video media to improve the learning outcomes of fourth-grade students at SD Negeri 3 Epil. The stages in the design of classroom action research are planning, implementing, observing, and reflecting in each cycle until learning outcomes increase until the research is stopped.

The following techniques are used in data collection:
1. Interview: Interviews were conducted to seek data information in the learning process. The interview conducted in this study
was to interview the fourth-grade homeroom teacher at SD Negeri 3 Epil. Through interviews, researchers got data on science subjects that did not meet Minimum Learning Completeness (KBM) and to find out about learning models and media that teachers often use in the learning process before using e-learning models and video media.

2. Observation: Observations in this study are to observe the activities of the direct learning process with the e-learning model, so observations are made online by always communicating with the homeroom teacher.

3. Tests: Tests were conducted on students to determine the learning outcomes of fourth-grade students of MIN Sukoharjo in science subjects through online learning with an e-learning model with video media.

4. Documentation: Documentation in this study is evidence of carrying out the process of learning activities or evidence of students doing assignments given by the teacher through pictures or videos.

Data analysis in this CAR uses descriptive analysis, descriptive in the form of percentages as follows:

\[ P = \frac{\text{completed learning total}}{\text{total number of students}} \times 100 \]

Researchers obtained data from interviews which were analyzed using descriptive analysis by looking at the data obtained from each cycle carried out, until the end of the study following classical completeness criteria. In this study, if student learning outcomes can achieve classical completeness criteria, namely 85% with Minimum Learning Completeness (KBM) in Science, which is 75, then the application of the e-learning model with video media can improve science learning outcomes in fourth-grade students of SD Negeri 3 Epil.

RESULT AND DISCUSSION

Results

Pre Cycle Results

The Pre-Cycle stage was carried out before the researcher carried out Cycle I. The results of the Pre-Cycle observation there were problems in Learning the Qur’an Hadith. Science learning outcomes are still below the Minimum Learning Completeness (KBM) which is 75. The daily test results (Pre-Cycle) can be seen in Table 1.
| No | Name | Score | Explanation |
|----|------|-------|-------------|
| 1  | MLS  | 60    | NOT PASS    |
| 2  | MSF  | 75    | PASS        |
| 3  | NAA  | 80    | PASS        |
| 4  | NHA  | 65    | NOT PASS    |
| 5  | PY   | 90    | PASS        |
| 6  | PAD  | 90    | PASS        |
| 7  | QEA  | 60    | NOT PASS    |
| 8  | RM   | 80    | PASS        |
| 9  | RKA  | 70    | NOT PASS    |
| 10 | RI   | 50    | NOT PASS    |
| 11 | RAR  | 55    | NOT PASS    |
| 12 | RAF  | 65    | NOT PASS    |
| 13 | SA   | 85    | PASS        |
| 14 | SNA  | 90    | PASS        |
| 15 | SSK  | 70    | NOT PASS    |
| 16 | SAW  | 75    | PASS        |
| 17 | SFJ  | 85    | PASS        |
| 18 | SNF  | 70    | NOT PASS    |
| 19 | TGR  | 90    | PASS        |
| 20 | TFS  | 60    | NOT PASS    |
| 21 | TF   | 65    | NOT PASS    |
| 22 | VFA  | 80    | PASS        |
| 23 | WR   | 60    | NOT PASS    |
| 24 | ZM   | 75    | PASS        |
| 25 | YSA  | 90    | PASS        |
| 26 | FNR  | 40    | NOT PASS    |
| 27 | SM   | 50    | PASS        |
| 28 | AA   | 85    | PASS        |
| 29 | GPM  | 55    | NOT PASS    |

Highest Score: 90
Lowest Score: 40
Average: 71.2

Cycle I Results
The research in Cycle I was carried out on Thursday, October 15, 2020, in the fourth grade of SD Negeri 3 Epil with a total of 36 students which was carried out online. The material in Cycle I is science as a life guide. The following is the value of the learning outcomes of Cycle I:
**Table 2**

| No | Name | Score | Explanation |
|----|------|-------|-------------|
| 1  | MNS  | 90    | PASS        |
| 2  | MSF  | 100   | PASS        |
| 3  | NAA  | 90    | PASS        |
| 4  | NHA  | 100   | PASS        |
| 5  | PY   | 80    | PASS        |
| 6  | PAD  | 100   | PASS        |
| 7  | QEA  | 90    | PASS        |
| 8  | RM   | 90    | PASS        |
| 9  | RKA  | 80    | PASS        |
| 10 | RI   | 80    | PASS        |
| 11 | RAR  | 100   | PASS        |
| 12 | RAF  | 70    | NOT PASS    |
| 13 | SA   | 70    | NOT PASS    |
| 14 | SNA  | 100   | PASS        |
| 15 | SSK  | 90    | PASS        |
| 16 | SAW  | 90    | PASS        |
| 17 | SFJ  | 100   | PASS        |
| 18 | SNF  | 100   | PASS        |
| 19 | TGR  | 80    | PASS        |
| 20 | TFS  | 70    | NOT PASS    |
| 21 | TF   | 100   | PASS        |
| 22 | VFA  | 90    | PASS        |
| 23 | WR   | 80    | PASS        |
| 24 | ZM   | 60    | NOT PASS    |
| 25 | YSA  | 100   | PASS        |
| 26 | FNR  | 70    | NOT PASS    |
| 27 | SM   | 90    | PASS        |
| 28 | AA   | 90    | PASS        |
| 29 | GPM  | 100   | PASS        |

Highest Score: 100
Lowest Score: 60
Average: 87.9

*Value of Learning Outcomes Cycle I*
**Cycle II Results**

The research in Cycle II was carried out Monday, May 18, 2020, in the fourth grade of SD Negeri 3 Epil with a total of 36 students which was carried out online. The material in Cycle II is Various Energy. The following is the value of Cycle II learning outcomes:

**Table 3**

| No | Name | Score | Explanation |
|----|------|-------|-------------|
| 1  | MNS  | 100   | PASS        |
| 2  | MSF  | 90    | PASS        |
| 3  | NAA  | 100   | PASS        |
| 4  | NHA  | 100   | PASS        |
| 5  | PY   | 90    | PASS        |
| 6  | PAD  | 90    | PASS        |
| 7  | QEA  | 70    | NOT PASS    |
| 8  | RM   | 90    | PASS        |
| 9  | RKA  | 100   | PASS        |
| 10 | RI   | 80    | PASS        |
| 11 | RAR  | 90    | PASS        |
| 12 | RAF  | 90    | PASS        |
| 13 | SA   | 80    | PASS        |
| 14 | SNA  | 100   | PASS        |
| 15 | SSK  | 100   | PASS        |
| 16 | SAW  | 80    | PASS        |
| 17 | SFJ  | 100   | PASS        |
| 18 | SNF  | 100   | PASS        |
| 19 | TGR  | 70    | NOT PASS    |
| 20 | TFS  | 80    | PASS        |
| 21 | TF   | 80    | PASS        |
| 22 | VFA  | 70    | NOT PASS    |
| 23 | WR   | 80    | PASS        |
| 24 | ZM   | 90    | PASS        |
| 25 | YSA  | 100   | PASS        |
| 26 | FNR  | 80    | PASS        |
| 27 | SM   | 90    | PASS        |
| 28 | AA   | 100   | PASS        |
| 29 | GPM  | 90    | PASS        |

Highest Score 100
Lowest Score 70
Average 89

*Value of Learning Outcomes Cycle II*
Discussion

Learning the Qur’an Hadith using e-learning models and video media influences on improving student learning outcomes. The results of the study can be seen in table 4:

Table 4

| Cycles    | Average | Category | Total | Percentage |
|-----------|---------|----------|-------|------------|
| Pre-Cycle | 71,2    | Pass     | 14    | 48,3%      |
|           |         | Not Pass | 15    | 51,7%      |
| I         | 87,9    | Pass     | 24    | 82,8%      |
|           |         | Not Pass | 5     | 17,2%      |
| II        | 89      | Pass     | 26    | 89,7%      |
|           |         | Not Pass | 3     | 10,3%      |

Recapitulation of Student Learning Results

Based on Table 4 shows an increase in learning outcomes after taking action. The learning process is carried out using the E-Learning model and video media.

Table 4.4 shows that the results of Pre-Cycle learning are 14 students (48.3%) complete, and 15 students (51.7%) incomplete with an average score of 71.2. These results do not meet the criteria for completeness that have been set, so research must be carried out in Cycle I.

Table 4 shows that the learning outcomes of Cycle I were 24 students (82.8%) completed, and 5 students (17.2%) incomplete with an average score of 87.9. These results do not meet the criteria for completeness that have been set, so research must be carried out in Cycle II with different materials and times.

Learning outcomes in Cycle II there are 26 students (89.7%) completed, and 3 students (10.3%) incomplete with an average value of 89. The results of these data can be seen that the value of student learning outcomes Cycle I to Cycle II has increased 6.9%. The implementation of learning in Cycle II is classically students who get a score of 75 (KBM value) reaching 89.7% of the total students. The percentage results have reached the classical completeness criteria, namely 85% of the total number of students who have completed their studies. Students who have not completed Cycle II will be given
independent action in the form of exercises or remediation by the teacher so that all students are expected to be able to complete learning. The results of the study can be described using graphic image 1:

**Figure 1**

![Student Learning Completion Graph](image)

Figure 1 shows student learning outcomes after applying the e-learning model and video media there was an increase in learning completeness. Pre-cycle 48.3% of students completed the learning, Cycle I 82.8% of students completed learning, and Cycle II 89.7% of students completed learning. The increase in students' complete learning from Pre-Cycle to Cycle I was 34.5%, and Cycle I to Cycle II was 6.9%. The discussion can be illustrated using Diagram 2:

**Figure 2**
Figure 2 shows that student learning outcomes after the implementation of the e-learning model and video media increased from 48.3% of students in pre-cycle learning, 82.8% in the first cycle, and 89.7% in the second cycle. The increase in students who finished studying Pre-Cycle to Cycle I was 34.5%, and Cycle I to Cycle II was 6.9%.

The results of the study state that the e-learning model and video media can improve science learning outcomes for grade IV SD Negeri 3 Epil for the 2020/2021 academic year.

CONCLUSION

The results of the fourth-grade research at SD Negeri 3 Epil for the 2020/2021 academic year, it can be concluded that the e-learning model and video media can improve science learning outcomes for grade IV at SD Negeri 3 Epil. It can be proven by the increase in pre-cycle learning outcomes where 14 students (48.3%) completed, and 15 students (51.7%) did not complete with an average score of 71.2, Cycle I was 24 students (82.8%) completed, and 5 students (17.2%) did not complete with an average score of 87.9, and Cycle II there were 26 students (89.7%) completed, and 3 students (10.3%) did not complete with an average score -average 89. The increase in learning completeness from Pre-Cycle to Cycle I was 34.5%, and Cycle I to Cycle II was 6.9%. This is based on the increase in learning outcomes in the pre-cycle 48.3%; Cycle I 82.8%; and Cycle II 89.7%.

SUGGESTIONS

Based on the results obtained in the Classroom Action Research that has been carried out, the researchers then provide the following suggestions:
1. Student
a. Parents should participate in motivating children to be more active in participating in learning.
b. Parents play a very important role in student learning activities to always monitor or supervise so that students are always actively involved in the learning process because the learning system used is online.

2. Teacher
a. The use of learning media that varies according to the material to be delivered especially with the e-learning model during the pandemic.
b. Teachers should always give an appeal for parents to participate in the learning process.

3. School
The school guides teachers about increasing teacher creativity in teaching online systems so that the learning process does not seem monotonous.

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