The Influence of e-PowerPoint with Peer Tutor Learning Methods to Increase Student's Activity and Learning Outcomes

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Abstract. The purpose of this study was to determine "The effect of e-PowerPoint learning media with peer tutor learning methods to increase the activeness and learning outcomes of students in SMA N. 1 Palembang". The research method used is the experimental method with a quantitative approach. The problem in this study is how the influence of e-PowerPoint learning media with peer tutoring methods on student activity and learning outcomes at SMA N 1 Palembang. Data collection in this study used: tests and observations, where observations were used to determine student learning activity while tests were used to measure student learning outcomes after being taught using e-PowerPoint media with peer tutoring methods. The results showed that there was an influence on student activity in learning by 92.2% being in the very active criteria when participating in the learning process with an average learning outcome test of 93.3% being in very good criteria. From the results of this study, it is known that the influence of e-PowerPoint learning media with peer tutor learning methods can increase student activities and learning outcomes with very good criteria.

Keywords: e-PowerPoint Learning Media · Peer Tutor

1 Introduction

Education is something that every human being does, both consciously and unconsciously. Human behavior that is always curious and has a continuous desire requires that you continue to learn as an effort to be better, both scientifically, religiously, and economically. Basically, educational activities can be carried out anywhere, anytime, and to/by anyone without being limited by space and time. A good education will lead to understanding and benefit for the person who is doing the learning, even greater will have an effect on the environment in which he is located. Human education starts from the family where this is the starting point for the formation of real human character until he gets education from various sources and different places.

By learning, we will become a quiet person who at first did not know to know, could not become able, and is not good will become better. The learning theory says that good

learning is learning by understanding the basic concepts and testing them in real life so that it provides real benefits for the learner. In Indonesia, education is classified into formal, informal, and non-formal education. Formal education, namely schools, aims to shape the character of students to master basic competencies as provisions for living in society. In learning, we know that there are components that are related to one another so as to produce good quality and learning outcomes. The learning components are teachers as educators, students, the school which manages the implementation of education in schools, and the school environment that conditions comfort in learning.

Teaching and learning activities in the classroom should be carried out as comfortably as possible for both teachers and students so as to obtain the desired goals. The competence of educators and the ability to understand students is something that is very much needed in teaching and learning activities without being separated from the availability of educational facilities and infrastructure. The use of learning media, tools, and learning resources also has an important role in achieving learning objectives in teaching and learning activities. Conceptually, we understand that apart from being a teacher in the classroom, we sometimes know that some students also have a deeper tendency to understand the teaching material. With the special abilities of these students, educators/teachers can condition these students to explain/give teaching to other students, with the hope that it will bring up emotional closeness in learning which has an effect on learning activity and learning outcomes.

From this background, the researcher wishes to research with the title "The effect of e-PowerPoint with peer tutor learning methods to increase student's activity and learning outcomes at SMA N. 1 Palembang". Learning media is a medium that is used for learning for means of communication of information that is conveyed by educators to students. According to [1] learning media is a way to further develop the teaching and practice of the learning process. Given the many types of media, educators should be able to try to choose them carefully so that they can be used properly.

Educators need to pay attention to the criteria in the selection of learning media. According to [2] Things to consider when choosing media, namely:

a. Synchronization between the learning media used and the target to be achieved.
b. Learning media provides an overview of the substance of the example that represents the teaching material that will be conveyed to students.
c. Ease of access and use by both educators and students during learning is something that is specifically considered.
d. Educators fully understand and are able to adapt the learning media to various learning conditions that change at a fast time.
e. The learning media used include the components of attractiveness, recency, and indications of increasing students' learning motivation.
f. The best learning media used in terms of visuals, audio components, and ICT connections.

According to [3] that must be considered when choosing learning media, must pay attention to: topics, content of material that is relevant to the curriculum, concepts of stages of material exposure, layout and colors that have been tested for validation.

The peer tutoring method (peer teaching) is a teaching and learning activity in the classroom that provides opportunities for students to teach and share knowledge or

skills to other students to help their friends who have difficulty in learning so that their friends can understand the material well. Peer tutors can give students a sense of comfort because in general the relationship between friends is closer than the teacher relationship. According to [4], peer tutoring is a teaching method that provides opportunities for students to teach and share knowledge or skills with other students.

The learning technique using the peer tutor method is carried out by dividing the class into small groups, whose learning resources are not only teachers but also peers who are smart and fast in mastering certain material. In this learning, students who become tutors should have higher abilities than other friends, so that when he gives guidance, he can already master the material to be delivered.

Meanwhile, according to [5], the criteria for peer tutors are as follows:

a. Have academic ability above the average student in one class.
b. Have the ability to accept the lessons delivered by the teacher.
c. Able to collaborate with fellow students.
d. Has high motivation to make his group of tutors the best.
e. It can be accepted and liked by students who receive peer tutoring programs, so that students do not have any fear or are reluctant to ask the teacher and are diligent.
f. Not arrogant, cruel or hard-hearted towards fellow comrades.
g. Having sufficient creative power to provide guidance, namely being able to explain lessons with their peers.

According to [6], the following learning steps must be applied when using the peer tutor method, namely:

a. Preparation phase, the teacher determines and designs a subject that has been described into sub-subjects that will be studied by students.
b. In the implementation stage, the teacher explains in advance the subject matter, the students who have been divided into several groups listen to the teacher's explanation. Peer tutors in one group ask their members in turn about things that have not been understood from the teacher's explanation and discuss together with the peer tutor guide as a learning center.
c. Evaluation stage, after learning is completed, the teacher gives practice questions to group members (other than tutors) to find out whether they have carried out learning activities according to their respective functions, and remind students to study sub-subjects that have been explained by the teacher and those that have been discussed. by peer tutors

2 Methods

This type of research method uses a research model with a qualitative approach. According to [7] data collection techniques are the most strategic steps in research, because the main purpose of research is to obtain data. [7] then explained that "in qualitative research data collection is carried out in natural settings (natural conditions), primary data sources, and data collection techniques are mostly on observation.

Observation is a daily human activity by using the five senses as the main tool. Based on this explanation, it can be concluded that, observation is a person's skill to

use his observations to assess the work of the five senses [8]. The types of observations according to [9]:

a. Participant observation

Participant observation is an observation in which the person conducting the observation participates in taking part in the life of the person being observed.

b. Non-Participant Observation

Observation is said to be non-participant if the observer does not take part in the life of the observation

c. Systematic observation (Structured observation)

Systematic observation, if the observer uses a guide as an instrument of observation.

d. Non-systematic observation

Observations made by observers without using observation instruments.

e. Experimental observation

Observation is done by observing put into a certain condition or situation.

Researchers used participatory observation and systematic observation [10] (Structured observation). The use of these two observation methods is intended so that researchers make observations and play a direct role as well as observations made by researchers are also formed, not out of the material that has been delivered by researchers.

3   Results and Discussion

At the time of carrying out the research, the researcher gave material to the students of class X IPS 2 SMA Negeri 1 Palembang using e-power point learning media [11]. In the implementation of teaching and learning activities at the beginning, study groups have been formed where one of them is a student who has been selected to be a tutor/teacher for the group. The selection of students as tutors/teachers is based on information from teaching teachers in class X IPS 2 and researchers conduct interviews to find out the potential of these students. Selected 6 students as tutors with the division into 6 study groups.

The formation of groups and the determination of students as tutors is aimed at maximizing learning that is not only focused on the teacher as a messenger of learning but also represented to students who act as peer tutors for other students.

During the teaching and learning process takes place using the Peer Tutor Method [12] which is divided into: 6 student study groups with 1 student being the assigned teacher. Students are seen discussing together by paying attention to the media that has been displayed by the teacher by each study group. The researcher asked the observer to observe each student to see the activity during the learning process. The following are the results of observations made by the observer to determine the activity during the learning process using e-power learning media point with the peer tutor model at SMA Negeri 1 Palembang.

Table 1. Recapitulation of Observation Results of Student Learning Activities

Score interval	Total students	Percentage	Category
42 – 50	28	99%	Very active
34 – 41	1	1%	Active
26 – 33	0	0%	Active enough
18 – 25	0	0%	Less active
10 – 17	0	0%	Bad
Amount	29	100%	**Very active**
Average	**28**		

Source: Processed from Research Results

Based on Table 1, it is known that the observation results are 2675 with an average of 92.2% being in the Very active criteria and there is only 1 student in the active category when participating in the learning process.

To find out whether there is an influence of the e-power point learning media using the peer tutor method, the researchers conducted two learning outcomes tests. The learning outcomes test are *pre-test* before learning begins and *post-test* after learning is carried out. This is done to see the effect of the application when the economics teacher explains the use and material in the e-power point learning media, The researcher gives directions for the X IPS class students of SMA Negeri 1 Palembang to fill out the *Pre-test* manually while *post-test* that has been provided on the e-power point learning media to see the students' abilities after seeing the material and using the e-power-based interactive economic learning media points.(Table 2) The following are the results of the *pre* -test and post - *test* that have been obtained by the researcher:

Table 2. Recapitulation of Student Learning Outcomes

Score interval	Total students	Percentage	Category
90 – 100	11	37.93%	Very good
80 – 89	18	62.06%	Well
70 – 79	1	3.44%	Enough
50 – 69	0	0%	Not enough
0 – 49	0	0%	Very Less
Amount	2 9	100%	**Very good**
Average	**62.06%**		

Source: Processed from Research Results

Table 3. Recapitulation of Student Learning Outcomes

Score interval	Total students	Percentage	Category
90 – 100	28	96.55%	Very good
80 – 89	1	3.44%	Well
70 – 79	0	0%	Enough
50 – 69	0	0%	Not enough
0 – 49	0	0%	Very Less
Amount	2 9	100%	**Very good**
Average	**96.33%**		

Source: Processed from Research Results

Based on the processed data of *pre-test learning outcomes*, it is known that 37.93% of students' learning outcomes are in the very good criteria, 62, 0 6% are in the good category, and 3.44% are sufficient. So, it can be concluded that the results of the *pre-test* students with an average result of 62.06% on criteria B is good

Based on the processed *post-test learning outcomes data*, it is known that 96.55% of students' learning outcomes are in the very good criteria, 3.44% are in the good category. So, it can be concluded that the results of the *pre-test* students with an average result of 96.55% on the very criteria B ok (Table 3).

4   Conclusion

The conclusions from the results of this study are: the use of e-power point learning media with the peer tutor method at SMA Negeri 1 Palembang is declared effective in increasing the learning activity of students by obtaining an average observation of 92.2% in the very active criteria. Based on the learning outcomes of students, it was known at the time of the *pre-test* with an average result of 37.93% with the criteria of Very High Good and post-test with an average result of 96, 55% with criteria B. So that there is an increase of 58, 62% in the learning outcomes of students of class X IPS 2 SMA Negeri 1 Palembang. So that it can be concluded that the use of e-power pin learning media with peer tutoring methods can be used to increase the active learning of students and to improve student learning outcomes.

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