

Conference Paper

Active Knowledge-sharing Method: Implementation of Google Earth-based Multimedia As a History Learning Media to Improve Cognitive Ability in High School an Makassar

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Abstract.

Learning history requires the internalization of principles, information, and abilities related to historical events that are planned and organized to influence and encourage student learning. In this era of globalization and information, the use of Information Technology (IT)-based learning media is a necessity and a demand, however, its implementation is not an easy thing. The implementation of information technology in the learning process is expected to be more interesting, active, and creative in an integrated, systematic, and effective manner per the demands of the skills of this century. Skills are the vision of education to deal with technological advances and the development of various intelligences of students to achieve maximum potential. The implementation of Google Earth-based multimedia as a learning medium using the active knowledge-sharing method in learning Indonesian history is very effective in increasing the cognitive abilities of students at High School an Makassar. The purpose of writing this article is to implement the use of Google Earth-based multimedia as a historical learning media based on Google Earth with the active knowledge-sharing method to improve the cognitive abilities of students at High School an Makassar. The results of writing this article show that the use of Google Earth-based multimedia as a learning medium using the active knowledge-sharing method in Indonesian history subjects has.

Keywords: active knowledge sharing, method google earth, learning history

1. Introduction

Learning history requires the internalization of principles, information, and abilities related to historical events that are planned and organized to influence and encourage student learning. The new paradigm of learning gives teachers the freedom to make

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lesson plans and evaluations that are tailored to the needs and preferences of their students [1]

Learning history in the independent curriculum aims to: (1) Increase self-understanding; (2) Increasing collective knowledge as a nation; (3) Increasing knowledge about the human dimension, space and time; and (4) Developing knowledge about the biographies of the characters, including their intellect, deeds, and works that have social significance. (5) Gain knowledge about connections or relationships between local, national and international events; (6) Acquire knowledge of how to view history holistically, taking into account the past, present and future; (7) Acquiring critical, diachronic (chronological), creative, synchronic, contextual, causal, imaginative, reflective, and multiperspective skills; (8) Improving skills in obtaining sources (verification), (9) Improving the ability to analyze historical data in non-digital and digital formats in various historical applications, including audio recordings, videos, drawings, mockups, vlogs, storyboards, infographics, videographics, comics, posters, etc. The values that must be improved are as follows: (10) Moral, human and environmental values; (11) The value of diversity and mutual cooperation; (12) Nationalism and patriotism; (14) Pride in past accomplishments; (15) The past as a future social reconstruction; and (16) historical awareness [2].

In fact, students consider historical topics to be less interesting because they regard them as boring subjects and require memorization. So that educators are required to be able to create interesting learning, starting from the method to the use of learning media [3]. A wise teacher realizes that student boredom comes from the method or use of the learning media used. So an educator must have knowledge and skills in choosing learning tactics, such as using interesting learning media is one of them. On the other hand, it can eliminate student boredom during learning [4]

The multimedia-based learning model is a technology-based teaching and learning tool that is able to captivate and interest students. According to Robin that multimedia is a presentation tool that combines text, animation, video, graphics, and audio which can play a role in the learning process [5]. In using the media must pay attention to several techniques so that the media used can be utilized to the fullest and not deviate from the purpose of the media. The implementation of information technology in the learning process is expected to be more interesting, active and creative in an integrated, systematic and effective manner in accordance with the demands of this century's skills [6].

Aspects of skills are needed in the learning process, namely a method or learning media, which is a tool for teaching and learning process. Learning media can improve the

quality of the learning process and increase the cognitive abilities of students, therefore schools must adjust equipment and tools according to the demands of the curriculum, media, methods and level of ability of students to achieve learning goals [7].

The virtual globe application or Earth Viewer is now called the Google Earth application. Google earth creates a map of the earth using data from aerial photos, satellite photos and GIS 3D Globe. One of the benefits of using the Google Earth application as a medium or learning tool. [8]

Learning media has a role in cognitive stimulation of students where the media acts as an introduction, symbol, so that the presence of media helps students' cognitive abilities develop properly. The Active Knowledge Sharing method is an optimal way to direct students' attention to the subject matter. Teachers can use it, as a measuring tool how far the students' knowledge is, even the use of this method also strengthens student team relationships, this method can work between subject matter or between several types of subjects. [9]

In Romainur's 2020 research, he explained that one of the learning media that can make it easier for teachers is by utilizing multimedia devices based on autoplay. However, what makes the difference with the research that I do is the use of multimedia based on Google Earth and the method that will be used, namely the active knowledge sharing method [10]. The research conducted by Khoirun Nikmah and Satriyo Pamungkas in 2022 is the use of the Google Earth application in history subjects in class X SMA Negeri 4 Jambi City with indicators of interest, activity and courage of students. However, this research does not explain how the use of the Google Earth application can improve students' cognitive abilities or knowledge. [11]

Based on the explanation above, this research will discuss how to implement the use of google earth-based multimedia as a history learning media based on google earth with the active knowledge sharing method to improve the cognitive abilities of students at High School an Makassar. Seeing the problems at High School an Makassar are in the use of learning media that is used which is still less attractive causing students to tend not to pay attention to the learning process. [12] With the existence of multimedia-based learning using the active knowledge sharing method, it can help improve cognitive abilities and attract and focus students' attention during the history learning process. [13]

2. Method

This research is a classroom action research. Research according to Suharsaputra is research with a focus on learning, both the process and the results within the framework of the educational process in schools. Classroom action research focuses on improving students' cognitive processes and abilities based on learning objectives. This study uses a quantitative approach using survey methods (Field Studies). This method uses data collection techniques by direct observation, interviews, questionnaires, mailed questionnaires or telephone surveys. The quantitative approach is obtained from the results of observing students' activities in the learning process using a multimedia-based learning model [14]. [15]

3. Results and Discussion

3.1. Implementation of google earth-based multimedia as a media for learning history with the active knowledge sharing method in class xi high school an makassar

Based on the results of the study, it shows that the implementation of google earth-based multimedia using the active knowledge sharing method in history subjects in class XI IIS has increased. The implementation is carried out once a week. The researcher during the research carried out three cycles using a time allocation of 90 minutes x 3 meetings. Before conducting the research, the researcher made direct observations at High School an Makassar, especially in class XI to find out how the teacher in history subjects was in the learning process. This observation was carried out by conducting interviews with one of the students. In addition to conducting interviews, researchers also consulted with history teachers regarding the test questions to be given, this is related to students' initial cognitive abilities in solving the test questions.

As for its implementation, the researcher first conveyed the material to be studied along with learning indicators, namely material between colonialism and imperialism with sub-chapters hunting for "pearls from the east" and the struggle for hegemony or the arrival of European nations to the archipelago. Next, the researcher conveys the learning objectives to be achieved and explains the material concepts. Then the researcher instructed the students that the lesson method to be used today was using the active knowledge sharing method and returning to pay attention to the animated video shows and the use of the Google Earth application on the projector related to learning material. The use of this method aims to exchange results from

video observations, establish cooperation, and students who already understand help their friends who don't understand and students who understand help their friends to understand. After that, the researcher again instructed the students to listen to the questions that would be submitted related to the subject matter, namely between colonialism and imperialism with the sub-chapter hunting for "pearls from the east" and the struggle for hegemony or the arrival of European nations to the archipelago.

The researcher asked students to answer the questions correctly, and again instructed students to look for answers to questions they did not know from their friends. After getting the answers the researcher asked the students to return to their seats and review the results of their answers. Then four groups were formed where each group had different material. At the end of the meeting the researcher asked students to summarize the results of their answers. The implementation of this action was carried out for two cycles. Each cycle includes one meeting of 90 minutes. In the results of this study, there are main data in the form of student question test results conducted in cycle I and cycle II, and supporting data in the form of student responses obtained from questionnaires.

In the implementation of this cycle, data regarding research results will be obtained, especially in improving the cognitive abilities of students after the implementation of learning media based on the Google Earth application, the active knowledge sharing method. At the planning stage the researcher made preparations related to learning in cycle I and cycle II, the preparations meant included: determining material, determining the use of google earth-based multimedia, determining active knowledge sharing methods, compiling learning tools, making student worksheets, making test questions and answer key. At the implementation stage the researchers began to apply google earth-based multimedia as a learning medium by using the active knowledge sharing method and making observations of students. Then the data on the results of cognitive abilities are measured through tests carried out in learning activities by giving three description questions at the end of each meeting. The results of data days in cycle 1 are still at the standard value of 75%, which means that there has not been an increase.

Based on the results of observations that students are still there, some of them have not focused too much on themselves during the learning process. Therefore, cycle II was re- implemented to strengthen the use of google earth-based multimedia as a learning medium with the active knowledge sharing method. After conducting google earth-based multimedia learning with the active knowledge sharing method in cycle I, the researcher made thorough preparations based on reflections in cycle I. Based on the results of observations made on the activities of students in cycle II, there was a change,

including that students were no longer seen speaking itself when the researcher gave the material and the students were active and enthusiastic when conducting discussions and during the learning process, besides that the students were able to understand the material easily and had started to work together in their group activities. From the results of observations in cycle II, it can be concluded that students' interest in learning has begun to appear. There are no more students who talk to themselves and focus their full attention during learning. As well as the results of students' answers on the worksheet have increased and the average value they got has reached the KKM score, which is an average of 80-95. So it can be concluded that the purpose of this study has been achieved. In other words, there was an increase in the cognitive abilities of students in cycle II with the implementation of google earth-based multimedia as a learning medium using the active knowledge sharing method. Because in cycle II you have got good results and have reached the target, the action is sufficient until cycle II and not continued in the next cycle. In addition to the test results of students obtained from cycle I and cycle II which aim to determine the increase in students' cognitive abilities, data from the results of student response questionnaires were also obtained to find out how students' responses or understanding of history learning used multimedia based on google earth as a learning medium with using the active knowledge sharing method on material between colonialism and imperialism.

The cognitive abilities of students using multimedia based on Google Earth as learning media using the active knowledge sharing method on material between colonialism and imperialism in cycle II increased compared to cognitive abilities in cycle I, and student responses in cycle II also increased from cycle I. The implementation of google earth-based multimedia as a learning medium using the active knowledge sharing method has succeeded in increasing students' understanding and learning achievement by achieving predetermined learning mastery. With this activity, students become more active in learning. Students look very enthusiastic in learning and are brave in expressing their opinions and can increase students' understanding and learning achievement. This is evident from the results of tests and observations of students who increased from cycle I to cycle II.

3.2. Improving the cognitive ability of class xi high school an makassar students after the implementation of google earth-based multimedia using the active knowledge sharing method

The use of multimedia-based learning media, students will more easily understand abstract concepts, this can ultimately improve students' cognitive abilities (Yamin, 2018). In general, cognitive is related to all aspects of the structure of the intellect that is used to know something. The process of cognition is acquiring knowledge and manipulating knowledge through the activities of remembering, analyzing, understanding, judging, reasoning, and imagining. In obtaining data regarding students' responses to the Google Earth application, 32 students were given a questionnaire to fill out questions consisting of several indicators namely remembering, understanding, analyzing, applying, evaluating and creating with the aim of knowing the cognitive abilities of each student. From the results of the questionnaire regarding the six indicators, it was found that more than 75% of students' answers led to cognitive improvement after the implementation of google earth-based multimedia as a learning medium.

The following are the results of increasing the cognitive abilities of class XI High School an Makassar students after implementing google earth-based multimedia using the active knowledge sharing method :

1. Implementation of Pre-Cucus Actions

At the pre-cycle stage of the research it is a condition that students have not received learning in Indonesian history subjects with google earth-based multimedia as learning media and using active knowledge sharing learning methods. On the other hand, the results of this initial test are also used to determine standards in evaluating learning and as a comparison of scores in the next research stage, namely the values of cycle I and cycle II. The implementation of the pre-cycle stage is carried out through planning, namely the researcher prepares the class before the start of learning. Implementation of learning begins with apperception by the teacher to students and continues learning with the method that has been running before. After this stage, the researcher continued to carry out student learning tests at the pre-cycle stage

2. Implementation of Cycle I Actions

In the implementation of this cycle, data regarding research results will be obtained, especially in improving the cognitive abilities of students after the implementation of learning media based on the Google Earth application, the active knowledge sharing method. After carrying out the cognitive ability test,

the test results obtained data with a standard value of 75%, which means that it has not experienced an increase when applied to learning activities. Based on the results of observations and observations of researchers that there are still students among them they have not focused too much on the ongoing learning process. Therefore, cycle II was re-implemented to strengthen the use of google earth-based multimedia as a learning medium with the active knowledge sharing method.

3. Implementation of Cycle II Actions

After conducting google earth-based multimedia learning with the active knowledge sharing method in cycle I, the researcher made thorough preparations based on reflections in cycle I. Based on the results of observations made on the activities of students in cycle II, there was a change, including that students were no longer seen speaking itself when the researcher gave the material and the students were active and enthusiastic when conducting discussions and during the learning process, besides that the students were able to understand the material easily and had started to work together in their group activities.

From the results of observations in cycle II, it can be concluded that students' interest in learning has begun to appear. There are no more students who talk to themselves and focus their full attention during learning. As well as the results of students' answers on the worksheet have increased and the average value they got has reached the KKM score, which is an average of 80-95. So it can be concluded that the purpose of this study has been achieved. In other words, there was an increase in the cognitive abilities of students in cycle II with the implementation of google earth-based multimedia as a learning medium using the active knowledge sharing method.

4. Results of Action Implementation Analysis

After conducting data analysis both tests and non-tests, it was found that history learning using multimedia based on Google Earth as a learning medium using the active knowledge sharing method on material between colonialism and imperialism at High School an Makassar can improve students' cognitive abilities effectively. The results of each meeting at the pre-cycle, cycle I and cycle II stages showed a significant increase in students' learning abilities. This increase was due to the implementation of multimedia-based learning carried out in class XI IIS High School an Makassar.

Based on cycle II, it has obtained good results and has reached the target, so the action is sufficient until cycle II and is not continued in the next cycle.

TABLE 1: Results of Analysis of Students' Cognitive Ability Value.

No.	Categorization	Pre cycle value	Cycle I Value	Cycle II Value
1.	Amount	1.982	2.326	2.505
2.	Avarage			
3.	Min	38	48	70
4	Max	88	93	98

Based on the results of the written test after learning, it can be concluded that the use of google earth-based multimedia as a learning medium using the active knowledge sharing method in Indonesian history subjects has increased at every stage. The total score of the written test material between colonialism and imperialism from a score of 1,982 (pre-cycle) increased 344 scores to 2,326 and in post-cycle II increased 179 to 2,505. The lowest score in one class also increased from a score of 38 (pre-cycle) to 48 (cycle I) and 70 (cycle II). The highest score also increased from 88 (pre cycle) to 93 (cycle I) and 98 (cycle II).

4. Conclusion

The implementation of google earth-based multimedia as a learning medium using the active knowledge sharing method in learning Indonesian history is very effective in improving the cognitive abilities of students at High School an Makassar. The results of the researcher's analysis showed that 94% of students in cycle I and 98% of students in cycle II experienced increased cognitive understanding of the material explained by educators. From the results of the questionnaire analysis, and written test scores, there was an increase in students' cognitive abilities. The results of the student questionnaire showed that in the pre- research stage, students had difficulty understanding material using conventional methods, whereas after conducting the research, it showed a decrease in the level of difficulty in understanding the material by implementing multimedia based on Google Earth as a learning medium using the active knowledge sharing method.

The factors that affect the improvement of students' cognitive abilities in Indonesian history subjects are the media and educator methods used in implementing learning that are diverse and not monotonous. The learning media and methods are adapted to the development needs of students, namely using information technology-based media and learning methods. In addition, educators are interactive in delivering material that

creates a more interesting and communicative learning atmosphere and the enthusiasm of students in participating in learning is greatly increased.

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