

APPLICATION OF AN ASSISTED DISCOVERY LEARNING MODEL E-LKPD TO IMPROVE GEOGRAPHY LEARNING OUTCOMES CLASS X AT SMAN 2 SUNGAI RUMBAI DHARMASRAYA REGENCY

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ABSTRACT: This research aims to, 1) determine students' learning activities in geography learning by applying the discovery learning model assisted by E-LKPD class E-LKPD class X at SMAN 2 Sungai Rumbai. The research carried out is classroom action research (Class-room Action Research). This classroom action research (PTK) was carried out in the even semester of the 2022/2023 academic year. The research was carried out in three cycles. The subjects in this research were class X science students with a total of 14 students. Data collection techniques use observation, learning motivation observation sheets, tests, and documentation. Data were analyzed using percentages and data reduction. The research results show that, 1) students' learning activities by implementing the Discovery Learning model assisted by E-LKPD in each cycle have succeeded in increasing. This can be seen from the increase in the grades of class X Science students at SMAN 2 Sungai Rumbai from cycle to cycle. In cycle I the level of student activity was in the sufficient category, then in cycle II it was in the good category, and increased in cycle III, namely in the very good category, 2) learning by applying the discovery learning model assisted by E-LKPD can improve Learning outcomes of class In cycle I, there were 6 students who completed it or 43%, then it increased in cycle II to 9 people or 64%, and 12 people or 86% reached the completion criteria set in cycle III. This means that there is an increase in each cycle of student learning outcomes in Geography learning by implementing the Discovery Learning learning model assisted by E-LKPD.

Keywords: Discovery Learning, E-LKPD, Learning Outcomes, Geography

1. INTRODUCTION

Education in accordance with the 1945 Constitution has the main objective, namely to make the nation's life more intelligent, and mandates the government to seek and implement a national teaching system regulated by law. Meanwhile, the aim of National Education as stated in the 1945 Constitution is to educate the nation's life based on faith and piety, have noble character, noble character and be able to compete internationally.

This is supported in Law of the Republic of Indonesia Number 20 of 2003 article 3 concerning the National Education System, namely "National education functions to develop abilities and shape the character and civilization of a dignified nation in order to make the nation's life more intelligent, aimed at developing the potential of students to become worthy human beings. have faith and devotion to God Almighty, have noble character, be healthy, knowledgeable, capable, creative, independent, and be a democratic and responsible

citizen."

The development of the industrial revolution has entered the revolution 4.0 stage. At this stage there is massive technological development in various parts of the world. As a result of this technological development, changes have occurred that have an impact on various areas of human life, such as economics, politics, technology, social, culture and education. In the world of education, digital technology has an influence on learning, therefore it is important to design learning that uses digital technology. Apart from that, 21st century learning has challenges for students to have a competitive spirit, critical thinking and problem solving, collaboration, good communication, creative and innovative thinking skills, social responsibility, work ethics and students can develop cognitive, affective and maximal psychomotor skills.

Student Worksheets (LKPD) are an activity-based learning tool. LKPD helps students

solve problems according to the required Basic Competencies (KD) [1]. A similar statement was made by [2] that one of the teaching resources is LKPD, which is filled in by students as practice questions and a summary of the main material. One of the tools used to support and facilitate educational efforts is LKPD. LKPD is a type of learning media designed to help make students more enthusiastic, give students moments to learn independently, and become a variety of interesting teaching methods.

One of the innovations in the learning process is the use of Student Worksheets, namely using E-LKPD (electronic LKPD) or online-based LKPD. E-LKPD is a sheet that is used as training material for students whose work is carried out digitally, in a structured and sustainable manner within a specified time period [3]. Liveworksheet, based online LKPD is an online-based interactive LKPD with a display containing material containing videos, MP3s, images and other interesting symbols. Discovery Learning-based E-LKPD is an electronic student worksheet created with discovery-based steps where later students can access this E-LKPD via the internet network in the hope that it can help students to better understand the material provided by the teacher so that the learning objectives can be achieved. This Discovery Learning-based E-LKPD has characteristics that are suitable for use in geography learning material where it is directly introduced to phenomena that occur on the surface of the earth which are then discussed according to the learning material. Apart from that, the combination of E-LKPD based on Discovery Learning can provide opportunities for students to learn independently and discover learning concepts at a specified place and time.

Achieving learning objectives must be based on effective and efficient learning activities. However, based on the research results of [4] it was revealed "Learning activities in learning are still in the corridor of basic activities (listening, asking and responding), meaning that the learning activities that often occur in Geography learning are still at the da- sar. Another finding in

Geography learning is the low quality of questions and problems presented by teachers in learning. If this is left unchecked it will hinder the achievement of learning objectives.

Based on the results of observations carried out at SMAN 2 Sungai Rumbai, it is known that in implementing the geography learning process, teachers use the 2013 curriculum which is integrated with Qur'an Education (PQ) and Minangkabau Natural Culture (BAM). The lesson plans used are in accordance with the 2013 curriculum standards. The media used is print-based and also uses whiteboard tools. Print-based media, namely source books and LKPD. The worksheets for students used by teachers are in the form of thin books containing concise material and questions in the form of verbal writing that are adapted to the material in the syllabus. The LKPD used is made of opaque paper with opaque black images. So learning activities tend to remain passive and textual in nature. This is because the learning process is still teacher-centered. Inappropriate selection of learning models and media is one of the factors that learning activities in the classroom become inactive, making the learning atmosphere seem monotonous, which results in students becoming bored quickly [5].

Based on data on geography learning outcomes for class X Science students at SMA Negeri 2 Sungai Rumbai, it shows that of the 14 students in class 70), and 20% of students scored above the KKM (>70). If these activities or conditions are still maintained in the learning process, it will be difficult to achieve the learning objectives.

From the reality of the problems described previously, efforts or solutions are needed to overcome these problems. One of the efforts or solutions needed to overcome this problem is to apply media and learning models that are more effective and efficient and appropriate to the conditions and situation. So one alternative option that can be used to improve student learning outcomes is by implementing E-LKPD media based on Discovery Learning.

2. METHODS

This classroom action research was carried out through three cycles to see improvements in interpersonal communication and student learning outcomes in Geography learning with four series of activities. The series of activities: 1) Formulating problems and planning actions, 2) Implementing actions, 3) Observations, 4) Reflecting on the results of observations, as changes/revisions to

planning for the development of further actions. Data collection techniques in this research are tests, observations, field notes, and documentation. In this research, the target for success of this research is that students complete at least 80% of the total number of students with an average overall learning outcome above 70 (KKM).

3. RESULTS AND DISCUSSION

This research is classroom action research which aims to obtain information and discuss the application of Discovery Learning assisted by E-LKPD Liveworksheets to improve students' Geography learning outcomes in class X Science at SMAN 2 Sungai Rumbai. This research consisted of 3 cycles where each cycle had 2 meetings. The subject that is the target of the research is Geography with material on Atmospheric Dynamics and Its Impact on Life. This research discusses material regarding 1) Characteristics of the layers of the Earth's atmosphere, 2) Measurement of weather elements and interpretation of weather data, 3) Classification of climate types and global climate patterns, 4) Characteristics of the climate in Indonesia and its influence on human activities, 5) The influence of global climate change on life, 6) Institutions that provide and utilize weather and climate data in Indonesia. Each meeting follows four stages in classroom action research, namely, planning, implementing, observing, and reflecting.

This research was conducted as an effort to improve student learning outcomes in Geography learning through the application of the discovery learning model assisted by E-LKPD. In using this model, students not only listen to explanations from educators, but students play a more active role in the learning process by using E-LKPD Liveworksheets.

In cycle I, there were 6 students who completed it or 43%, then it increased in cycle II to 9 people or 64%, and 12 people or 86% reached the completion criteria set in cycle III. This means that there is an increase in each cycle of student learning outcomes in Geography learning through the application of the Discovery Learning model assisted by E-LKPD Liveworksheets. Thus, the answer to the research problem has been revealed, namely that learning by applying the discovery learning model assisted by E-LKPD has succeeded in increasing students' learning activities and can also improve the geography learning outcomes of class X Science students at SMA Negeri 2 Sungai Rumbai.

In this digital era, students' critical thinking skills need to be trained well to be able to compete in the world of professionalism later. Most schools still have not found the right learning tools to train critical thinking skills. E-LKPD is a learning tool that contains material, summaries, instructions and practice questions that students work on on given problems. Based on this, there is a need for new breakthroughs that not only help train critical thinking skills,

but are also interesting and interactive for students.

Using live worksheet-based E-LKPD in learning has several advantages such as: 1) live worksheet-based LKPD is more effective and interactive, 2) students can play an active role in learning, 3) using live worksheet can increase creativity in making E-LKPD because of the many features, 4) teachers and students can immediately find out the scores obtained, 5) can be accessed anywhere and at any time, 6) this live worksheet web is economical because it can be accessed on Google for free. This means that E-LKPD is able to become a learning resource that is economical in terms of costs, practical in terms of use, flexible to access by students, efficient, relevant to current conditions, has positive value and is able to maintain consistency in learning implementation in accordance with the learning plan that has been designed [6-7].

This is acceptable because through learning activities applying the Discovery Learning model, it encourages students to be active, because students are expected to reconstruct the lesson material independently. Apart from that, learning by applying the Discovery Learning model aims to improve students' cognitive abilities.

The learning outcomes of students in this action research are the cognitive domain values obtained by students, namely in the form of test results for Class X Science students. The evaluation value was obtained after learning was carried out by implementing the discovery learning model assisted by E-LKPD Liveworksheets effectively and efficiently. Then it can be understood that the discovery learning model has a significant effect on students' cognitive abilities.

Based on the explanation above, it can be concluded that the application of the discovery learning model assisted by E-LKPD Liveworksheets in geography learning has a positive impact on student learning outcomes so that it can be an effective alternative choice in the learning process to achieve better geography learning outcomes in Class X Science students at SMA Negeri 2 Sungai Rumbai.

The application of the Discovery Learning learning model assisted by E-LKPD Liveworksheets makes learning a habit of being creative and creating varied and innovative questions. The Discovery Learning learning model helps students understand the material more easily. The advantages of using the Discovery Learning learning model are as follows: (a) help students to improve and enhance cognitive skills and processes.

Discovery efforts are key in this process, a person depends on how they learn, (b) the knowledge gained through this method is very personal and powerful because it strengthens understanding, memory and transfer, (c) create a feeling of joy in students, because of the growing sense of investigation and success, (d) this learning model allows students to develop quickly and at their own pace, and (e) Causing students to direct their own learning activities by involving their own reason and motivation.

4. CONCLUSION

Students learning activities by implementing the Discovery Learning model assisted by E-LKPD in each cycle have succeeded in increasing. This can be seen from the increase in the grades of class X Science students at SMAN 2 Sungai Rumbai from cycle to cycle. In cycle I the level of student activity was in the sufficient category, then in cycle II it was in the good category, and increased in cycle III, namely in

the very good category.

Learning by applying the discovery learning model assisted by E-LKPD can improve the learning outcomes of class In cycle I, there were 6 students who completed it or 43%, then it increased in cycle II to 9 people or 64%, and 12 people or 86% reached the completion criteria set in cycle III. This means that there is an increase in each cycle of student learning outcomes in Geography learning by implementing the Discovery Learning learning model assisted by E-LKPD.

Based on the research results, the author provides the following suggestions, in learning activities teachers should be able to apply the Discovery Learning learning model assisted by E-LKPD to other materials by using different methods so that students do not feel bored in learning. Then, in implementing the Discovery Learning learning model assisted by E-LKPD, giving rewards to students can increase student enthusiasm in the learning process.

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