Sumatra Journal of Disaster, Geography and Geography Education, June, 2020, Vol. 4, No. 1, pp. 115-119
DISASTER, GEOGRAPHY, GEOGRAPHY EDUCATION http://sjdgge.ppj.unp.ac.id/index.php/Sjdgge
ISSN : 2580 - 4030 (Print) 2580 - 1775 (Online), Indonesia

AN APPLICATION OF GENERATIVE LEARNING MODELS TO IMPROVE STUDENTS LEARNING OUTCOMES OF GEOGRAPHY AT X-IPS 3 CLASS SMA NEGERI 1 PEKANBARU IN ACADEMIC YEAR 2019/2020

* Jendri Afriwal Gusti[1] and Nadia Fathurrahmi Lawita[2]

[1]Master Program of Geography Education, Padang State University, Indonesia
[2]Tarbiyah Academy of Sciences Darul Ulum Sarolangun Jambi-Indonesia
Email: jendrigusti3@gmail.com

*Corresponding Author, Received: April 12, 2020, Revised: May 11, 2020, Accepted: May 20, 2020

ABSTRACT: This research is motivated by the low learning outcomes of student at geography subject. The aims of this research was to obtain the information and discuss the efforts to improve student learning outcomes of Geography subject through the application of generative learning models at X-IPS3 class in SMA Negeri 1 Pekanbaru in academic year 2019/2020. This research was a classroom action research that consisting of two cycles, where is each cycle consisted of four stages namely planning, acting, observing, and reflecting. The subject of this research was at X-IPS 3 class in SMA Negeri 1 Pekanbaru. The research was conducted in Odd Semester 2019 in the 2019/2020 of academic years. Data collection techniques by interviewing and observing students in class while studying for 2 months starting from September to October 2019. The results showed that through generative learning models could improve student-learning outcomes of geography at X-IPS 3 class in SMA Negeri 1 Pekanbaru 2019/2020 academic year.

Keywords: Learning Outcome, Geography, Generative Learning Models

1. INTRODUCTION

Geography is a science to support life and encourage life improvement. The scope of the study allows humans to get answers to questions about the world around them that are asked on the spatial, and ecological aspects of human existence. Field of study Earth's geography review, aspects, and processes that shape, and spatial cause relationships of humans and the environment, and human interaction with the place. As an integrative discipline, geography combines the natural dimension with the human dimension in the review of filling and place human life and the environment

In the subject matter of geography, there are discussions about concepts, approaches, principles, and aspects of geography. Students can understand through the concepts creation of geography in the classroom based on the existing experience all around. This is an integrative learning process that relies heavily on the reasoning process in the process of long-term o brain memory that pplying concepts that already exist in the surrounding environment as an interesting learning process for students.

The learning process at school and outside of school results in the formation of three abilities known as Bloom's Taxonomy, namely cognitive, affective, and psychomotor abilities [1]. As we know that the learning outcomes are a combination of nature and the influence of environmental factors (factors and resource base). Cognitive ability is an ability related to the mastery of science and technology, as a result of the learning process.

The nature of learning from the above understanding as a process of behavior change. The behavior change is not caused by physiological factors but because of the learning process. There is a change because learning is a change in skills, increasing knowledge, the development of thinking and so on. The level of learning results obtained by students is a reflection of the quality of learning that has been done. An approach to learning with particular specificity requires a particular business judgment as well.

Learning as a psychological process going on in a person [2]. The learning process is so complex that it is difficult to see without tools. Likewise, learning is a rental activity/psychic that takes place in active interaction with the environment that results in changes in the knowledge, understanding, skills and value attitudes [3].

Learning outcomes is the mastery of knowledge, skills and something new attitude; or reinforce something that had previously controlled, including understanding and control values [4]. Another opinion expressed that the learning outcomes are always expressed in terms of a change in behavior that involves three aspects: (a) cognitive, including changes in the terms of acquisition of knowledge development of the

necessary abilities to use this knowledge (b) affective, include changes in terms of mental attitude, feelings and consciousness; (c) psychomotor aspects, including changes in the terms of the form of motor actions [5].

To determine whether or not the learning outcomes, can be done through an achievement test. The achievement test is a measure used to determine the level of success of a learning process or to determine the level of success of a learning program. A test is a set of stimuli given to someone with the intent to get the answers that can be used as the basis for the determination of the score or number. Scores are based on a representative sample of the test participant's behavior is an indicator of how far the person tested has the characteristic being measured, where to find size and learning outcomes data is to know the indicators associated with this kind of achievement to be measured.

Related through the teaching of geography in school, the teacher was instrumental in determining the success of the learning objectives. Ideally, in designing learning activities, teachers can train students to ask questions, observe, investigate, read, search, and find a good answer to the question posed by the teacher, and they ask themselves. The knowledge presented to students not only in the form of products, but also in the form of process, that is in the process of teaching, recognition, understanding, training, methods, and the reasoning of students, it is important to teach [6].

Nowadays there is a tendency of teachers to often use learning techniques that are less mobilize and foster the potential of thinking, attitudes, and skills of students. Students tend to be less interested in geography because during a geography lesson regarded as lessons are only concerned with mere rote, less emphasis on the reasoning that led to low interest in learning geography students at school [7]. Teachers as designers of learning were instrumental in determining the achievement of learning objectives.

Professional teachers always make preparations, by planning learning objectives, organizing material, planning strategies, models, methods, media, evaluations, and being able to realize what has been planned appropriately. The learning model is defined as a learning plan that shows a certain learning pattern, which in the pattern of activity of teachers, students, learning resources used in delivering learning or system condition that causes learning environment to the students [8]. The learning model classified into four (4) sections that have orientation on human behavior and how students learn. These may include: (a) Model of Learning Process Information (the information-processing family); (B) Social Learning Model (the social family); (c) Personal Learning Model (the personal family); (D) Model Behavior Learning System (the behavioral system family) [9].

Each model has an impact study and impact learning companion [10]. The impact of learning is learning outcomes are achieved directly by directing students to the goals expected, while the impact of learning outcomes other escort is produced by a process of learning as a result of the creation of a learning environment that directly by students without direct guidance.

Study and renewal in the learning model that is applied can be done using Generative Learning Model (MPG). This learning model is a model of learning that is done to have the knowledge, ability, and skills independently. Besides learning, objects can include broad learning materials. In addition to the selection of appropriate learning models, the acquisition of learning outcomes of learning activities is also influenced by the ability of teachers to know and understand the characteristics of students. Teachers are able to know the characteristics of the students will be able to assist in the implementation of the learning process effectively.

Generative Learning Model first introduced by Osborne and Cosgrove [11]. Generative learning is an instructional model that emphasizes the active integration of new knowledge by using prior knowledge of previous students [12]. New knowledge will be tested by using it in answering the issue or the associated symptoms. If the new knowledge to successfully answer the problems faced, the new knowledge that will be stored in long term memory.

Generative learning model is a very active process for learners. Learners are required to connect new information and existing information they had [13, 14, 15]. They created their own concept with the knowledge that a new concept has been known [15] This learning model has advantages among learners, i.e., active in learning and memory, stimulates curiosity learners, and learners can make the hypothesis of a problem [16, 17].

In addition to these advantages, this learning model also has some disadvantages including the tendency of misconception and takes a long time [18] There are several stages in generative learning models include (1) exploration, (2) focusing, (3) challenge, and (4) the application of the concept [19]. The generative model is a model of teaching of comprehension and the learning of the types of relations that learners must construct between stored knowledge, memories of experience, and new information for comprehension to occur [20]. Generative Learning Model has a theoretical base which is rooted in constructivist learning theories about teaching and learning. the application of

generative learning can improve student learning outcomes [21].

Based on the experience gained in the previous Academic Year, students find it difficult to understand the concept material, the principle approach and aspects of geography because students are not interested in learning geography. SMA Negeri 1 Pekanbaru now understands more about the development of technology, fashion and more than others.

2. METHOD

This research was a Classroom Action Research (CAR). The main concept of CAR according to Kurt Lewin consists of four components, namely: Planning, acting, observing, and reflecting. The subject of this research was at X-IPS 3 class in SMA Negeri 1 Pekanbaru. The research was carried out in Odd in the 2019-2020 Academic Year. Data collection techniques used tests, observations, field notes, and documentation. Data was analyzed using percentage and data reduction.

3. RESULTS AND DISCUSSION

Cycle I

Planning

The preparations of planning in the first cycle were as follows: 1) Preparing the syllabus, 2) Make lesson Plan of the first cycle, characterized by learning to use the model of generative, 3) Preparing teaching materials, 4) Prepare a medium of learning, 5) Preparing to matter daily tests and answer keys, 6) Prepare field notes first cycle.

Action

The first meeting in cycle 1 was held on Monday, August 5, 2019, at X.IPS.3 class in SMAN 1 Pekanbaru. The first meeting discussed the essential concepts of geography. Teacher ask students to tidy up their clothes first. The first meeting consists of three activities namely preliminary activities, core activities and, closing activities. The second meeting in cycle 1 was held on Tuesday 12 August at X. IPS 3 class in SMA N 1 Pekabaru. The second meeting discussed the approach and principles of geography. After the bell rang, all students entered to the class and the teacher checks the attendance and readiness of students. For students whose clothes are not neat, the teacher tells students to tidy up their clothes first. The second meeting consists of three activities, namely the preliminary activities of core activities and closing activities.

Observation

At the end of the learning process, students were given a formative test to determine the success rate of students in the learning process has been done. In cycle, I, in broad outline of teaching and learning activities with generative learning models have been implemented well, although the role of the teacher is still dominant enough to provide explanations and direction. Next is a recapitulation of students' formative test results as shown in the following table.

Table 1. Recapitulation of Formative Tests' Result in Cycle I

No.	Description	Cycle I Result
1.	Average value of formative tests	68.50
2.	Number of students who have completed their studies	24
3.	Percentage of mastery learning	67 %

Based on the above table, it can be concluded that the average formative test of 68.50 students is still below the specified minimum completeness criteria, while the percentage of students completeness is 63% or 24 students out of 36 people have finished learning, but this has not reached the desired target of 80 %.

Reflection

The reflection phase was carried out on Friday 30 August 2019 at the teacher's room in SMA N 1 Pekanbaru, assisted by a collaborator named Rahmat Hidayat. Reach the specified minimum completeness criteria, because the learning process has not been maximized. In the learning process in this activity, after students present their work reports, the teacher should clarify the material discussed by the students, but it is not optimal because a) The teacher lacks mastery of the material, b) The teacher does not manage the training settings optimally, causing students to lack cooperation in groups when conducting investigations, lacking discipline, lack of responsibility and less respect for the opinions of others, (c) Teachers are less effective in managing the class because students fuss when expressing opinions, writing reports and when presenting report results.

Based on the results of the reflection for the next cycle the researcher would be even more effective in managing the class and by not giving praise to students who get the learning outcomes following the desired target. For this reason, this research continues to the next cycle (Cycle II).

Cycle II

Planning

Preparations on planning the first cycle are as follows: 1) Preparing the syllabus, 2) Make lesson plan for the second cycle characterized by learning to use the model of generative, 3) Preparing teaching materials, 4) Prepare a medium of learning, 5) Preparing matter daily tests and answer keys, 6) Prepare field notes the second cycle.

Action

The first meeting in the second cycle was held on Monday 9 September 2019 through the material on Map and Mapping. The first meeting consisted of three preliminary activities, core activities, and closing activity. The second meeting in cycle II was held on Tuesday 7 October 2019 with material on maps and mapping. The second meeting was held during school hours to 1, 2 and 3 consisting of three activities, namely, preliminary activities, core activities and activities cover

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Observation

At the end of the learning process students are given tests formative II to determine the success rate of students during the learning process has been done. The instrument used was a formative test II. The research data in the second cycle is as follows.

Table 2. Recapitulation of Formative Tests' Result in Cycle II

No.	Description	Cycle II Result
1.	Average value of formative tests	82.34
2.	Number of students who have completed their studies	31 orang
3.	Percentage of mastery learning	86%

Based on the above table it can be concluded that the average formative test of students at the second cycle meeting is above the expected completeness criteria or is already above the established minimum completeness criteria of 82.34 with a percentage of completeness of 86% or 31 out of 36 students who have a complete learning.

Reflection

This cycle of reflection phase was done to see an increase of the use of model of learning in the second cycle. In the second cycle was found that the constraints contained in the first cycle are not too visible. This was caused because the second cycle teachers already fix the mistakes that occurred in the first cycle so that the learning outcomes of students in the second cycle has been increased and reached the expected completeness criteria. Therefore, this research was not continued to the next cycle.

Based on the results of the research above, it can be seen that generative learning models can increase student-learning interest in geography subjects. This can be seen from the percentage of students' learning completeness seen from cycle I to cycle II. Where each cycle has increased. Learning model teachers need to understand to carry out learning effectively in improving learning outcomes. In its application, the learning model must be carried out according to the needs of students because each learning model has different goals, principles, and main pressures. Through this generative learning, the model can help increase student interest in learning. Generative learning is a learning model that emphasizes the active integration of new knowledge by using the knowledge that students already have before [22]. The new knowledge would be tested by using it in answering problems or related symptoms. If the new knowledge successfully answers the problem at hand, the new knowledge will be stored in long-term memory.

4. CONCLUSIONS

Based on the above results it can be concluded that through generative learning model can increase student interest in the subject of geography at X IPS 3 class in SMA Negeri 1 Pekanbaru in the academic year 2019/2020. For this reason, it is suggested that implementing a generative learning model requires sufficient preparation so that the teacher must be able to determine or choose a topic that can be applied with the generative learning model in the teaching and learning process so that optimal results are obtained.

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