

Application of Environment Based Learning for Geography Teaching at SMA Negeri 2 Tondano

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Abstract—Research problem the environment-based learning approach has not been applied in learning geography for students of SMA Negeri 2 Tondano Minahasa. The purpose of the study was to determine the effectiveness of the application of environment-based learning in improving student learning outcomes at SMA Negeri 2 Tondano. The research method used is descriptive development aimed to develop learning models. The sampling technique in this study was purposive, the sample was determined by 30 students. The calculation result shows that there are 28 students or 93.3% participants of the learning program, classified in the mastery level ≥ 70 or Success category, and 2 students or 6.7% of students who get mastery ≤ 70 which is declared Not Successful (BB). The results of these calculations indicate most of the students participating in the program were declared successful in conducting environment-based learning activities. This means environment-based learning is effective in improving student learning outcomes at SMA N. 2 Tondano in geography learning.

Keywords: *Application of Learning, Environment Based, Geography Teaching*

I. INTRODUCTION

The application of environment-based learning models in the learning process today has become a necessity of the learning process, especially in learning geography in schools. The development of environment-based learning models in geography learning is a form of innovation learning is developed as a learning model is relevant to the application of the curriculum according to the development of learning science and technology. As an environment-oriented discipline with a spatial approach, geography learning material is material sourced from a contextual environment.

Based on the description, it can be explained geography learning materials especially taught in schools including high schools should be developed based on real conditions in a contextual environment. Geography teachers have the responsibility to develop environment-based learning according to teaching materials and by learning objectives. Geography teachers will experience difficulties in implementing the learning process if the teacher only develops learning based on theory without linking it to the contextual environment. The students will experience difficulties in learning and understanding the material if learning is only done in theory without

developing learning utilizes the environment as a source and container of learning for geography.

The development of environment-based learning models aims to bring students closer to the contextual environment according to the subject matter, in addition to producing integrated environment-based geography learning tools, which include: learning syntax, teaching materials, evaluation models, and environment-based learning media. The teaching material or materials are extracted and sourced from contextual conditions and potentials are close to the lives of the learning participants in this case students according to the physical, social, economic, cultural conditions of the student's home environment.

One of the geography learning models developed in the learning process in schools today is the environment-based learning model or known as the contextual learning model. In learning for geography material, the development of an environment-based learning model has become a necessity for the learning process teachers should develop in the learning process.

Geography teachers in all education units have not developed optimally the environment-based learning process, due to the reality of the learning process is dominated by learning relying on the lecture method, learning the orientation of textbooks at the theoretical level, not much use the environment as a learning medium. While one of the demands and needs of learning today is oriented towards a practical level, where students, students are expected to be able to recognize various phenomena exist in the contextual environment. The current process of learning geography should be developed by taking the conditions and reality in the contextual environment, which creates many geographical problems that should be studied as the contextual learning needs of contextual geography. Students lack basic skills in recognizing environmental phenomena and have not been given many assignments to studying the contextual environmental conditions.

In environment-based learning is known as constructivist understanding, which is an understanding explains the learning approach that connects the theoretical and practical level. Through environment-based learning, students are directed to be able to build new knowledge based on existing environmental phenomena.

Environmentally based learning is in tune with contextual learning which is a learning approach aimed to improve the ability of situated learning where knowledge and learning processes are conditioned in a particular physical form and in social contexts that are relevant to the living conditions and environment of students [1]. With this learning, the students are trained in the skills to observe existing environmental conditions, and it is expected that students can identify environmental problems, with these skills students can study geographic problems that exist in people's lives contextually and be able to express alternative solutions problem.

The problems exist in learning Geography in SMA 2 Tondano are observed in the learning process as follows: (1) the geography teacher has not developed an environmentally based learning process optimally in learning geography, (2) the process of learning geography has not been supported by learning-based devices. adequate environment, (3) the geography learning process is still dominated by lecture presentation, (4) the geography teacher in the learning process has not optimally utilized the environment as a medium and learning medium, (5) the instructor has not applied an environmentally based learning model optimally in the process Geography subjects learning, (6) evaluation data for learning geography subjects show that $\geq 65\%$ of students have not been successful in the learning process for environment-based geography material.

Based on the conditions of the geography learning problem, one of the important tasks of the geography teacher is to develop and implement environment-based learning in geography learning according to the needs and learning objectives. Professional geography teachers should be able to make good environment-based learning plans and the teacher should also have the ability to develop effective learning as well the learning process can be successful.

Therefore teachers should be able to make learning designs including the application of effective environment-based learning models in learning. The environment-based learning model developed in geography is a learning strategy that emphasizes learning process skills by utilizing the environment as a learning resource and container.

A contextual approach is one approach utilizes the environment as a learning container for students to be able to recognize environmental conditions that are relevant to the learning objectives. By utilizing the environment as a learning platform, it is expected that students will have new knowledge and the ability to overcome existing problems in the real world or the environment is close to student life. Cecep explains about the contextual learning content is explored and comes from environmental conditions around the lives of students according to the subject matter.

In applying the environment-based learning model it is expected geography teachers have professional abilities that can be relied upon, they can conduct their duties and responsibilities as a teacher in the learning process effectively and provide a positive influence on students [2]. Many problems faced in the learning process of

geography in schools, among others, are prominent, namely learning gives much disappointment, due to students' understanding of teaching materials is relatively low.

The contributing factors are, among others, due to students are only able to memorize geographic concepts, but in fact, they are not able to understand their meaning, and most students are not able to connect between what is learned in school and how knowledge can be used or utilized in society [3]. Teaching geography is not done contextually. It can be stated the main problem is not developed learning models included in the environment-based learning tools in geography teaching. This should be answered in the process of organizing learning where the teacher as the instructor of learning is responsible to develop learning activity according to the demands and developments of an increasingly complex and competitive era.

The organizers of geography education are expected to be able to develop environment-based learning by utilizing the environment as a learning platform. In particular, the physical environment offers a variety of phenomena are appropriate to the context of geographical learning and through the environment, students will also get a variety of enjoyable learning experiences to be able to develop their abilities, skills, and knowledge according to the demands and needs and challenges of today's life and the future.

Conceptually the development of an environment-based learning model or a contextual approach is an important and decisive approach to learning in developing process-oriented learning strategies, through which learning participants will get a variety of learning experiences that are expected to develop participants' skills according to the objectives predetermined learning. The development of environment-based learning includes the development of environment-based teaching materials which are learning materials developed by integrating theoretical concepts and real conditions in the field or contextual environment relevant to the social, cultural, technological and environmental conditions associated with developed teaching materials. This is important due to the fact Geography has an environment-based content but subject teachers have not done an environment-based learning model, due to learning is dominated by theoretical level. The environment-based learning model is important should be the main model in learning geography [4].

Contextual approach as one of the learning models is suitable for the teaching of geography, has become an important part cannot be separated in the process of learning geography, due to the contextual approach, the study of geography study objects will be conducted as expected. The success of the implementation of the learning process with a contextual approach in learning geography will also depend very much on the learning planning undertaken by the subject teacher as the planner and executor of the learning process. Therefore, the instructor should make a good learning plan, taking to the various learning components, including determining the location or place according to the subject matter to be

taught for students and by applying contextual learning it is expected students' abilities and skills in learning geography will develop. The progress of the learning process can be seen from the learning motivation, learning process skills and student learning outcomes obtained in the learning process according to the objectives of this research process.

II. RESEARCH METHODS

The research method used is descriptive developmental, namely research methods aimed to develop a model or method of learning. The sampling technique in this study was purposive, a sample of 30 students. The analysis was done descriptively.

III. RESULTS AND DISCUSSION

The purpose of this study was to determine the effectiveness of environment-based learning in teaching Geography in SMA 2 Tondano students, using descriptive research methods. The study was conducted on 30 students.

Learning Activities:

1. Preparation of learning tools
Learning tools prepared in teaching include: a) Learning plans/scenarios, b) environment-based learning materials, c) formulation of evaluation formats.
2. Explanation of the environment-based learning process. The implementation of learning includes activities: a) preparing the learning participants, b) explaining the lesson plan c) explaining the learning objectives, d) explaining the evaluation of the learning process.
3. Implementation of environment-based learning
 - 3.1. Learning Activities

In this learning activity, 1 student conducted the learning process in a contextual environment to observe the activities of residents in the Remboken region.

Based on the results of observations, the following data are obtained: 1) The observational data shows the activities of dominant population of Remboken areas farmers, where 82% of the population is farmers; 2) the types of plants cultivated by the population include: corn plants besides clove plants and some coconuts.

Evaluation is conducted in several forms: First: evaluation of learning activities, with notes: 1) participants of the learning program conduct learning activities well, 2) Participants are motivated in conducting environment-based learning activities. 3) the occurrence of good learning interactions between fellow participants and interactions with the teacher is good.

Second:
Assessment of environmental-based learning activity reports.

After the learning participant observes the activities of the population, the participant makes an observation activity report as a form of learning, and based on the observation report, an evaluation of the report is conducted. There are three indicators of evaluation of the

report which include: 1) the rationality of the results of the observation, 2) the clarity of the description and 3) the significance of the results of the observation.

The calculation results show in observation activity 1 as follows: the measurement results obtained by 28 students or 93.3% of students get an achievement score ≥ 70 which is categorized as a good mastery level or declared successful in learning, and there are 2 students or 6, 7% of students classified as achievement score < 70 which was stated as unsuccessful.

By observing the data from the calculation results above shows in the observation activities of the population for the first activity, it turns out most students participating in the program were declared successful in conducting environment-based learning activities. This shows environment-based learning for activity 1 was declared successful, thus environment-based learning was declared effective in developing students' ability to conduct meaningful learning activities and most students were declared successful in the learning process.

It means environment-based learning is declared effective in improving student learning outcomes in Geography learning.

3.2. Learning activities 2): Observation of environmental problems.

In this learning activity 2, students conduct the learning process in a contextual environment to observe environmental problems in the Remboken region.

In this section the learning program participants conduct observation activities to observe the environmental problems exist in the Remboken area, to explain the conditions of the environmental problems faced by residents in the Remboken region, as follows:

Based on observations, the following data are obtained: 1) Observation data shows residents of the Remboken region are facing environmental problems; 2) general environmental problems include: landfills that have not been arranged, there are parts of the environment are dirty, drainage has not been arranged properly. Efforts are being made to increase environmental awareness by the government as an effort to keep the environment clean and sustainable.

After learning participants conduct observations of economic activities of the population, the participants make an observation report as a form of learning participant performance and based on the performance report, an evaluation of the report is conducted. There are three indicators of assessment of the report which include: 1) the significance of the observations, 2) the significance of the problem raised, 3) the clarity of the problem described.

Based on the achievement score table of the second observation activity, it can be explained as follows: the results of the calculation obtained 27 participants data 90% of students get an achievement score ≥ 70 which is categorized as a good mastery level or declared successful, and there are 3 students or only 10% which is classified as achievement score 70 which is stated as achievement level of the category has not been successful.

By observing the calculation data, the observation of environmental conditions for the second activity, it turns students participating in the program were declared

successful in conducting environment-based learning activities. This shows environment-based learning for activity 2 in terms of observing environmental problems, is declared successful, thus environment-based learning is declared effective in developing students' ability to conduct meaningful learning activities, most students are declared successful in the learning process. Environment-based learning is declared effective in improving student learning outcomes in Geography learning.

The evaluation aspects of the second activity emphasized on three aspects namely: 1) the significance of the results of the observation; it turns most program participants can provide a meaningful description of the observations, means the explanation of the observations is classified as meaningful due to the learning program participants provide good explanations, 2) The significance of the problem raised; measurement results show most program participants raise a description of the problem is important to pay attention to. 3) Clarity of the problem given; measurement or assessment results indicate most participants in the learning program were able to express clear and meaningful problem descriptions. It can be explained that for the second observation activity, participants of the learning program can conduct environment-based learning activities. This shows environment-based learning activities are very good for learning geography [5].

Based on the results of calculations on the mastery level score data of students participating in environment-based learning activities in Geography learning for the first observation and second observation activities, the calculation results can be presented as follows: The calculation results show that there are 29 students or 96.7% of students participating the learning program, belonging to the mastery level ≥ 70 which is categorized as successful, and there is only 1 participant in the learning program or 3.3% of students who have mastered ≤ 70 who declared as Unsuccessful (BB) category.

Based on the calculation data as mentioned shows most of the program participants were declared successful in conducting environment-based learning in activity one and activity two. This means environment-based learning in Geography learning effectively develops the learning abilities of participants in the learning program, It is successful in implementing environment-based learning [6]. These results can be stated environment-based learning is effective in improving student learning outcomes in SMA Negeri 2 Tondano, and It shows environment-based learning is effective in improving learning outcomes in geography subjects.

IV. CONCLUSION

Based on the results of this study, the following conclusions can be made:

1. Development of environment-based learning for teaching Geography is effective in developing the abilities to learn program participants.

2. Environment-based learning is effective in improving the learning outcomes of participants in learning Geography at SMA Negeri 2 Tondano.

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