

## Improving Student Activities and Learning Outcomes Through the Problem based Learning (PBL) Model in Geography Learning

\*Nada Nilam Suri, Yurni Suasti, Ernawati

Master Program (S2) Geography Education, Faculty Social Science – Universitas Negeri Padang, Indonesia

\*E-mail: nadanilam98@gmail.com

Received: 22 Jan. 2022, Revised: 07 Jun. 2022, Accepted: 09 Jun. 2022

### ABSTRACT

The purpose of the study is to determine the application of the Problem Based Learning (PBL) model, student activities during the application, and student learning outcomes after the application of the Problem Based Learning (PBL) model to geography learning. This research is Classroom Action Research (PTK) or Classroom Action Research (CAR). Steps for implementing actions in PTK with action planning, action implementation, observation, and reflection. Data collection techniques with observations, scales, and tests. Based on the results of this study, it was found that this study student activity while applying the PBL learning model to exponential and logarithmic material in class X IPS 1 SMAN 3 Bukittinggi were classified as active student criteria and student learning outcomes after applying the PBL learning model achieved classical completion of 87.5%.

*Keywords: Learning Activities, Learning Outcomes, Problem Based Learning (PBL) Model.*



This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License

### INTRODUCTION

The progress of a nation is influenced by the instruments of the nation itself, one of which is the human being and the quality of human education itself. Some efforts in improving the quality of learning, literacy in the application of learning models, and so on. Scientific studies related to the application of learning models to the learning process both in the classroom and outside the classroom have been carried out by (Pitadjeng, 2015) and have an impact on student activity with learning outcomes. Students will participate in passive learning activities if the teacher is always the center and learning resource for students. Therefore, various alternatives need to be done by the teacher so that the learning process runs well and gives meaning to students. Ideal learning conditions if the teacher acts as a facilitator for students. In addition, problem-based learning can facilitate students in developing scientific reasoning (Sofiyah & Wulandari, 2018).

The above mistakes cannot only be imposed on the learner, but the first is responsible for the teacher, who should look for learning strategies that are by the characteristics of the material being taught and must bring the context of the material closer to the real life of the learner (Wardani & Suparno, 1994). The step that teachers can take is to apply several approaches to learning Geography.

Based on general observations made by researchers at SMAN 3 Bukittinggi City through interviews with teachers of Geography subjects, information was obtained including learning is still teacher-centered, causing students to be less active in the learning

process, and geography learning outcomes are low compared to other subjects, and student activities to take notes are still lacking. Therefore, an effective and efficient alternative model is needed to achieve constructivist learning. One of them is the application of the inquiry method. The Problem Based Learning method is a core part of problem-based learning activities. The teacher must always design activities that refer to activities that bring up the problem, no matter what material is taught.

Based on the description above, the researcher took the title "Improving Student Activities and Learning Outcomes in Geography Learning through the Based Learning (PBL) Problem Model at SMA N 3 Bukittinggi City".

## **LITERATURE REVIEW**

Student activities (Martinis, 2007) in the learning process can stimulate and develop their talents, think critically, and can solve problems in everyday life. Teachers need to systematically design a learning system to stimulate student activity in the learning process. Learning will be meaningful if students are active in the learning process.

Learning outcomes are the results achieved from the teaching and learning process by educational objectives. Arifin (2012) learning outcomes can be grouped into three domains, namely cognitive, affective and psychomotor. Each domain is organized into several levels of ability, ranging from easy things to difficult things, and ranging from concrete things to abstract things.

PBL or commonly called higher level education importance (Sherwood, 2004) refers to a learning approach that focuses on the problem-solving process with which learners acquire the necessary knowledge. PBL is a learning method in which students learn with inspiration, group thinking, and using related information. To try to solve problems both real and hypothetical, students are trained to synthesize knowledge and skills before they apply them to problems (Kuan-nien et al., 2011).

## **METHODS**

This research is PTK or CAR. Steps for implementing actions in PTK with action planning, action implementation, observation, and reflection. Data collection techniques with observations, scales, and tests.

## **RESULTS**

Observation of student learning activities is carried out by an observer during learning activities in the classroom. Observations are made using the student's observation sheet instrument. In the instrument, there are 7 categories observed by observers of 8 students consisting of 3 students with high abilities, 2 students with moderate abilities, and 3 students with low abilities. Such results are presented in Table 1 below.

Table 1. Questionnaire score interpretation

| Percentage (%) | Criteria  |
|----------------|-----------|
| 81 – 100       | Very High |
| 61 – 80        | High      |
| 41 – 60        | Currently |
| 21 – 40        | Low       |
| 0 – 20         | Very Low  |

Based on Table 1, it is concluded that class X social studies 1 students of SMAN 3 Bukittinggi obtained an average score of 79.01 classified as active students. The learning outcomes data is used as a reference to the criteria that have been set by the school, which can be said to be complete learning if the percentage score of learning completion is 85%. The results of student learning tests are presented in Table 3 below.

Table 2. The results of student learning tests are presented

| Finished | Not Finished | Number of Respondents |
|----------|--------------|-----------------------|
| 28       | 4            | 32                    |

From the score data of class X social studies 1 student of SMAN 3 Bukittinggi, totaling 32 students took the student ability test, the students who were declared complete were 28 students and 4 students who were declared incomplete. If more than 85% of the students in the class graduate, then classical completion of learning is achieved. The calculation to state the percentage of the number of students who graduated using the calculation of classical completeness. From the calculation of the percentage of student completion classically, it can be concluded that the learning process with PBL achieved classical completion reaching 87.5%. Furthermore, the results of the implementation of exponential and logarithmic material research are explained by applying the PBL model starting from the 1<sup>st</sup> and 2<sup>nd</sup> meetings divided into observations for student activities and learning outcomes. Based on observations of student activity carried out on 8 students and observed by an observer consisting of 3 students with high abilities, 2 students with moderate abilities, and 3 students with low abilities. The results of student activity can be seen that students are enthusiastic about working on worksheets given by lecturers as teachers because learning becomes more active and students are easier to understand exponential material and logarithms with the PBL learning model with a total score of 8 students is 632.1 and the average score is 79.01% classified as active students.

As for student learning outcomes carried out in one class by providing an evaluation test with 5 types of description questions. The test is given to the student after the subject matter has been completed. Students are said to be complete if they have reached the minimum completion standard score that has been determined by the school, which is a score of 75. From Table 2, it can be seen that students who completed learning on exponential and logarithmic material were 28 students, incomplete 4 students, and achieved classical completion reaching 87.5%. In understanding this, it can be concluded that learning using the PBL learning model makes it easier for students to understand the material presented so that at the time of the evaluation test most of them get scores exceeding the passing standard.

## CONCLUSIONS

Conclusions that can be drawn from this study, are student activities during applying the PBL learning model to exponential material and logarithms in class X IPS 1 SMAN 3 Bukittinggi are classified as active student criteria and student learning outcomes after applying the PBL learning model achieved classical completion of 87.5%.

## REFERENCES

- Arifin Z. (2012). *Evaluasi Intuksional*. Bandung: Sinar Baru Algensindo.
- Kuan-nien, C., Lin, P.-c., & Chang, S.-S. (2011). Integrating Library Instruction Into a Problem Based Learning Curriculum. *Aslib Proceedings*, 63(5), 517-532.
- Martinis, Y. (2007). *Strategi Pembelajaran Berbasis Kompetensi*. Jakarta: Gaung Persada Press.
- Pitadjeng. (2015). *Pembelajaran Matematika yang Menyenangkan*. Yogyakarta: Graha Ilmu.
- Sherwood, A. L. (2004). Problem-Based Learning In Management Education: A Framework For Designing Context. *Management Education*, 28(5), 536-557.
- Sofiyah, N., & Wulandari, F. E. (2018). Model Problem Based Learning (PBL) dalam Melatih Scientific Reasoning Siswa. *Jurnal Penelitian Pendidikan IPA*, 3(1), 33-38.
- Wardani I.G.L. (1994). *Program Pengalaman Lapangan (PPL)*. Jakarta: Dikti