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INCREASING ACTIVITIES AND RESULTS OF STUDENT LEARNING *CHASSIS* LESSON THROUGH PBL (*PROBLEM BASED LEARNING) LEARNING* MODEL IN *VOCATIONAL SCHOOL*

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ABSTRACT

This study aims to: 1) To find out whether or not student activity has been applied to the PBL model (*Problem Based Learning*) on the XI class chassis subjects at PN Purworejo Vocational School. 2) To find out whether or not student learning outcomes increase after the PBL model (*Problem Based Learning*) is applied on the XI class *chassis* subjects at PN Purworejo Vocational School. This type of research is Classroom Action Research. This research was conducted in two cycles. The subject of this action research is a class XI student of Engineering Program kendaraa n Light The PN Purworejo Vocational School 2018/2019 , which numbered 27 students, consisted of 26 male students and 1 female student. The aspects studied included curiosity, behavior, and activeness of students who showed students' enthusiasm for learning and learning actions shown by the teacher as indicators of implementing learning with problem-based learning models. After the data is obtained then it is analyzed using percentage description techniques. A nalisis data by quantitative descriptive analysis to find the average percentage of the activity and student learning outcomes. The results of this study are that activeness and student learning outcomes increase from each cycle. This can be seen from the increase in the average score of student activity from the pre-cycle with a percentage of 70.37% categorized as less, up to 82.87% in the good category and increasing in the second cycle that is equal to 90.89% and falls into the very good category . While for student learning outcomes can be seen from the increase in learning outcomes by applying the problem based learning model (*Problem Based Learning*). Based on results the average learning of students who meet competency standards is as follows: in the pre cycle the average value is 72.37 with a percentage of 29.63% in the sufficient category then increasing in the first cycle with an average of 81.03 with the percentage is 51.85% and is included in the good and increasing category in the second cycle with an average of 90.66 with a percentage of 88.88% and included in the excellent category.

Keywords: *problem-based learning, student activity, results study .*

INTRODUCTION

Education is one thing that cannot be separated from a nation's civilization. This causes the approach to be one of the important indicators in the matter of community and state affairs. It is the education process that will influence and become one of the starting points for the success and progress of a nation. "Education is a conscious effort to prepare students through guidance, teaching, and / or training for their role in the future" (UUR.I. No. 2 of 1989, Chapter 1 Article 1).

education is a process in order to influence students to be able to adjust to their environment, and thus will lead to changes in themselves that allow themselves to be ready to immediately plunge into the community and not awkward when facing people who are different in character. In addition, the strategy for implementing education is carried out in the form of guidance, teaching, and / or training activities. Guidance in essence is the provision of direction, input, motivation, advice and counseling whose functions are so that students can overcome and solve problems and overcome themselves.

According to the Law of the Republic of Indonesia number 20 of 2003 concerning the national education system (article 1) states:

"Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation and country. "

According to Slameto (2013: 2) said that learning is a business process carried out by a person to obtain a change in new behavior as a whole, as a result of his own experience in interaction with his environment . Thus learning is an attempt to change the habits of students who were not good at first to be good and continuous. Which of changing these habits aims to make students 'behavior better than before to use for students' knowledge and skills.

According to Oemar (2014: 57) explains that "Learning is a combination that is composed of human, material, facilities, equipment, and procedures that influence the learning objectives. Humans are involved in teaching systems consisting of students, teachers, and other personnel, such as laboratory personnel. Materials, including books, blackboard, chalk, photography, slides and films, audio and video tape. Facilities and equipment, consisting of classrooms, audio-visual equipment, as well as computers. Procedures, including schedules and methods for delivering information, practices, learning, examinations, etc. "

The learning process is essentially a process of interaction between the teacher and students which contains the activities of students through various interactions and

learning experiences experienced by both. Student learning activeness is one of the basic elements that are important for the success of the learning process. (Wibowo, 2016) . If the activeness of students during the learning process in the lower class can result in the learning outcomes even more and more and also decline.

Learning outcomes are a measure or level of success that can be achieved by a student based on the experience gained after an evaluation in the form of a test and is usually realized with certain values or numbers and causes changes in cognitive, affective, and psychomotor. (Nafiah & Suyanto, nd) . As for the coverage of the three things according to Sudjana (2017: 22), namely as follows: 1) The cognitive domain, which is related to intellectual learning outcomes which consists of six aspects, namely knowledge or memory, comprehension, application, analysis, cystesis, and evaluation. 2) Affective domain, that is with regard to attitude which consists of five aspects namely acceptance, answer or reaction, judgment, organization, and internalization. 3) Psychomotor domain, which is related to the learning outcomes of skills and abilities to act. There are six psychomotor aspects, namely reflex movements, basic movement skills, perceptual abilities, harmony or determination, complex skill movements and expressive and interpersonal movements.

According to Winataputra (2001: 3), explaining that the model is interpreted as a conceptual framework that is used as a guide in conducting a learning activity . Effective learning if there is a learning model by carrying out an approach taken by the educator in order for the learning process activities during the classroom and outside the classroom which aims to improve students' abilities.

According to Amir (2009: 21) explained that *PBL* is a curriculum and learning process. In the curriculum, problems are designed that require students to get important knowledge, make them proficient in solving problems, and have their own learning strategies and participate in teams. The learning process uses a systematic approach to solving problems or facing challenges that will be needed in everyday life. The application of the PBL model at Purworejo District Vocational High School is very effective and students are more enthusiastic when given assignments in the form of problems and assignments in the form of discussion. With the implementation of the PBL model, the activeness of students, especially at Purworejo District Vocational High School, is higher than before.

RESEARCH METHODOLOGY

This research is a class of action research (CAR) conducted at the PN Purworejo Vocational School. The research was conducted in March 2019. The subjects

of this study were class XI A Light Vehicle Engineering, the class numbered 26 male students and 1 female student. In this study, the theory is adopted from (Kemmis Taggart, 2006) , which is quoted by Suwarsih Madya (2007: 67) in Suyitno (2018) namely: 1) Planning, 2) Actions, 3) Observation, 4) Actions.

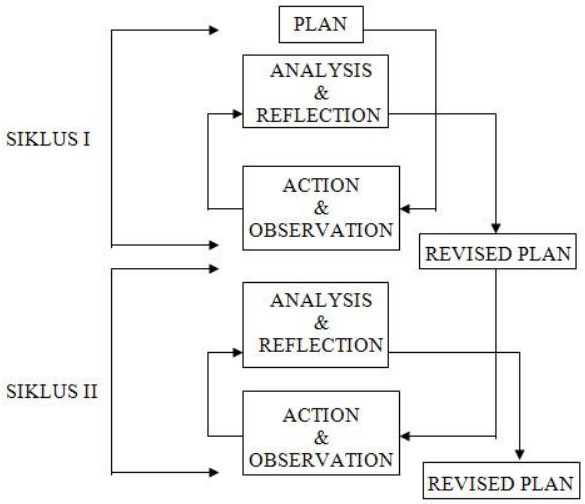

Figure 01. Methodology

This study aims to improve the activity and learning outcomes of students in class XI A Light Vehicle Engineering Vocational School of PN Purworejo. At the time of conducting research at the Purworejo District Vocational High School, the author used data collection techniques namely observation, interviews, tests and documentation.

1. Observation

   This research was carried out by observation activities. The author made observations by looking directly at the *Chasis* learning process . The author observes the learning process and records all matters relating to the author's research problem.

2. Interview

   The author interviewed the subject matter teacher at the Purworejo District Vocational High School to get the information needed by the author.

3. Test

   The author examines the ability of students in order to find out to what extent students understand related to Chasis learning. talking about student understanding, of course it will affect the learning outcomes. Therefore, the author conducted a test as a testing instrument to determine student learning outcomes. The test used by the author is multiple choice.

4. Documentation

   The documentation method in this study is used to collect data which is the initial research data. Documented data in the form of the number of students in the class, the names of students who will be the subject of research, and others.

RESEARCH RESULTS AND DISCUSSION

In this class action research is divided into several cycles, the following are the results of each cycle, namely as follows:

1. Pre cycle

A. Activity and student learning outcomes

Students who get a very good average score of 3 students with a

percentage of 11.11% then students who get good average scores amount to 3 people with a percentage of 11.11% and students who get enough average scores amount to 2 students with a percentage 7.40%, while students who get very low scores are 19 people with a percentage of 70.37 %. Whereas student learning outcomes that scored below 75 were as many as 19 students with a percentage of 70.37% of 27 students of class XI. Then those who got the above score were only 8 students with a percentage of 29.63% from 27 children in class XI. While the indicator of the success of learning outcomes is if 27 students of class XI get an average score above 75 over 85%.

2. Cycle I

A. Student activity and student learning outcomes

activeness of students in the first cycle increases to "good". With the percentage of students who get grades in cycle 1 as many as 5 students 18.12%, students who get the value of "good" amount to 9 people 33.33% and students who get "enough" scores amount to 13 people 48.15%. Whereas the average score is "less good" and "less good" 0%. There was an increase in this first cycle but the increase was not maximal, because the average grade was 82.87% and was still in the good category. Whereas for the learning outcomes there are students who get a score below 75. This can be seen from students who get scores below 75 as many as 13 students with a percentage of 48.15% while students who score above 75 are 14 with a percentage of 51.85 % of 27 class XI students.

3. Cycle II

A. Student activity and student learning outcomes

In the second cycle the activity of students increased to "very good". With the percentage of students who get the value "very good in cycle II as many as 16 students 59.26%, students who get the value of" good "amounted to 8 people 29.63% and students who get the value of" enough "amounted to 3 people 11.11% . Whereas the average score is "less good" and "less good" 0%. There was an increase in the second cycle and the increase could be said to be maximum, because the average grade was 90.89% and was included in the excellent category . While student learning outcomes, namely students who get a value> 87 amounted to 21 students categorized as "high" and passed with a percentage of 77.77%. Students with a score of 75-86 total 3 students in the "medium" category and passed with a percentage of 11.11%. Students with 70-74 grades were 3 students in the "less" category and were declared not graduated with a percentage of 11.11%. Thus a significant increase that occurred in the second cycle where students who have values below 75 are only 3 students with a percentage of 11.11%. While students who have met the graduation criteria are 24 students with a percentage of 88.88%. The following is an

image of increasing the activity and learning outcomes of each cycle, as follows:

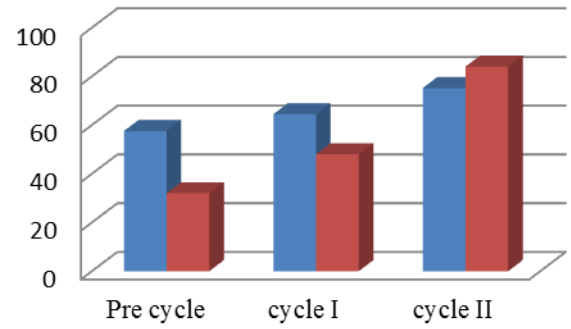

Figure 02. Student learning outcomes each cycle

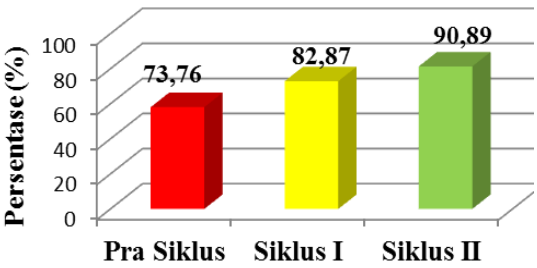

Figure 03. The results of student activity each cycle

CONCLUSIONS

The application of the learning model (*problem based learning*) can increase the activeness of student learning outcomes. This is evidenced by the activity of cycle students obtaining a percentage that is equal to 73.76% and is still in the less category. Then the first cycle obtained a percentage of 82.87% and cycle II and obtained a percentage of 90.89% with a very good category. While the student learning outcomes in the pre-cycle were 72.37 with a percentage of 29.63% and included in the less category. Then the first cycle obtained an average of 81.03 with a percentage of 51.85% and still in the good category. K e mudian the second cycle get an average of 90.66 with a percentage of 88.88% and fall into the very good category . Thus to achieve the competency of students with a percentage of 88.88% with the category of graduation and already exceeding class competency which is equal to 85%.

At the time of research at the Purworejo District Vocational High School by applying the PBL model it was very effective when used for the learning process and students were always more active and efficient when using the PBL model (*problem based learning*).

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