



IMPROVING THE ACTIVITY AND THE STUDENTS' CHEMISTRY LEARNING OUTPUT ON THE TWELFTH GRADE SCIENCE CLASS AT SMAN 1 INDRALAYA UTARA BY USING BAJAPRETA MODEL

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Abstrak

The purpose of the research was to improve the activity assessed by the students who raising their hands when they were asked to present, answered their friends' questions and to make conclusion. It was expected that by doing so, the students would be accustomed to raise their hands, be responsible and more confident. On the other side, the study would be beneficial for the teacher to be more professional where as for the school, it was expected that it would improve its prestige either in regency level or in provincial level. The technics used to collect the data were observation, questionnaire, and final evaluation test. About improving the activity and the students' learning output by Bajapreta model (Read the teaching material, answer the question, present the answer, respond to the presentation, make conclusion, final evaluation test and weekly assignment). The subject of the research were 30 students; 11 male students and 19 female students. The research was conducted on first semester of 2013/ 2014 school year. In seven months started from May to December 2013. From the research, it could be concluded that the activity of the students on each three cycles was 40%, 100%, and 100% of the students raised their hands. The increase from 40% to 100% was occurred because the students were often reminded and motivated to raise their hands in presenting their answers either in responding the presentation and making conclusion about the lesson. From first cycle to the second and third was increasing in the average 74,6 , 75,0 , 100,0. This was occurred due to the question of the final test was the same as the questions during the lesson. Therefore, the teacher of chemistry were suggested to apply Bajapreta model in order to be able to increase the activity and the student's learning output.

Key words = *activeness, learning output, bajapreta model*

INTRODUCTION

Background

80%- 90% students were not active in learning chemistry lesson at SMAN 1 Indralaya Utara. The students were still not confident in answering question. That was proved about only 10%-20% those who raised their hands wanted to answer the question in the learning process. The result of the output learning of the twelfth grade science students was still low, based on the result of mid semester test, only 24% of the students got more than the chriterian minimum standard.

Problem

The problem in the research was whether or not there was an increase in the students activity and the output of the learning chemistry lesson for the twelfth grade students of SMAN 1 Indralaya Utara?



The Objective

1. The objective of the research was to increase the activeness of the students that measured by the increase of the percentage of the students who raised their hands when they were asked to present, to respond, and to conclude their friends presentation

The Benefit of The Research

1. The benefit of the research was to increase the students achievement by motivating them to raise their hands, brave responsible and confident.
2. The benefit for the chemistry teacher was to increase teacher's professionalism.
3. The benefit for the school was to increase the school prestige in the regency and province level.

Literature Review

The Government had published the Republic of Indonesian constitution number 20, 2003 about national educational system at chapter 1 verse 1: education is a conscious effort that has been planned to make the learning condition and the learning process in order to make the students developed their self potential actively. This research was supported by the Republic of Indonesian constitution number 20, 2003 about educational system in indonesia, especially in learning chemistry lesson at SMAN 1 Indralaya Utara, This school was a new school which was established in 2005. Active learning was where the students were not given the information by the teacher, teachers did not teach the students to answer the questions, students should find out by them selves, the teacher must be able to make the students read the learning material by them selves and they could look for from the internet if it was necessary, this learning scenarios had been done by Anom K (2011) in Anom K., and Imron A. Hakim 2013. The meeting was begun by the opening. The opening was about 15 minute, 60 minute for presentation and response. Then the last 15 minutes was the closer that contains a conclusion, the final evaluation tests, and chemistry lesson plan was given for an upcoming meeting. In this way, the learning model 'Bajapreta' that existed in the real lesson plans and actual was used in the classroom.

The result of the previous research that was relevant with this research was "cross evaluation method" that had been successfully increase the activeness of the students of SMAN 1 Indralaya to learn chemistry lesson (Anom, K and Imron A. Hakim: 2013),and also for the students of Pendidikan Kimia FKIP Sriwijaya University). The students would learn actively if they read the teaching material first, on the other hand, the students would not learn actively if they only listened the presentation from the teacher. Reading the teaching material was similar to giving assignment in pre learning activities as according to Nyoman in Anom, K and Imron A. Hakim : 2013, that giving the pre learning assignment to the students at chemistry lesson could increase the learning activity and learning output of the students.

Trisyono in Anom, K and Imron A. Hakim: 2013 stated that giving assignment could increase the students' activity and the aplication of this model got positive response from most of the students. The result of Maulana's research in Anom, K and Imron A. Hakim: 2013 stated that discussed and presentation method could increase students learning activity.

This research was modification or development from cross evaluation variation model, that had been done at chemistry education study program FKIP Sriwijaya University. The model was BAJAPRETA model, that was reading materials, answering the question that had been prepared, presenting and responding the presentation, concluding and evaluating test. The researcher believed

that this method could increase the activeness and students output learning at SMA/ MA at Indralaya Utara district at the academic year 2013/ 2014.

METHOD AND PROCEDURES

Method

This research was an action research, according to Sukmadinata (2007:164) it was a suitable method to develop the learning process. There were three cycles in the research, every cycle consisted of four activities, they were planning, action, observation and reflection. In the planning activity, the research team discussed about what they would do in the action activity. In the action activity, the teacher was a model and the other member of the team were observer, after the process of the learning, the discussion was carried out to evaluate the process of learning that had been done, adopted Lesson Study version, namely plan, do, see.

Population and Sample

The subject of this research were the student of the twelfth grade science class of SMAN 1 Indralaya Utara Ogan Ilir Regency. There were 11 male students and 19 female students.

Instrument

The Technique of Collecting and Analyzing Data to Find Out The Output Learning of Chemistry Lesson.

1. The Test Score

The average of the student score was found out by using the formula:

$$X = \frac{\sum x}{N}$$

Where : X = The average of the score

$\sum x$ = Total score

N = Number of the students

2. To calculate the percentage of the student achievement was used the following formula:

$$P = \frac{\sum \text{The student who reach the criterion minimum standard}}{\sum \text{Total students}}$$

Table 1. Category of The Students' Score

Score	Category	Explanation
≥ 85	Excellent	Complete
70 – 84	Good	Complete
55 - 69	Vair	Not Complete
≤ 54	Low	Not Complete



The Chriterian minimum standard of chemistry lesson in SMAN 1 Indralaya Utara was 80,0 so in this research the minimum standard was 80,0.

The Technique for Collecting data that was used to see the students' activeness were observation and questionnaire. Observation was used to see the activeness of students' learning, and the questionnaire was used to colect the data about the quality of learning process. In this research, the researcher also used interview to dig the fact of the observation and the questionnaire result.

1. Observation Paper

To calculate the percentage of the students activity in raising their hands the researcher used the following formula:

$$\% = \frac{\text{Activity Score} \times 100 \%}{\text{Number of The Students}} =$$

The teaching material was the material in the lesson plan, that was prepared and would be presented to the students as the subject of the research. The teaching material was prepared in the lesson plan that had been given somedays before the learning and teaching process in the classroom. The subject of the research were 30 students (11 male students and 19 female students).

The next step was reflection toward the result of the observation and the final evaluation test. When the researcher found out that there were students who were not sucessfull yet, they had to repair the action in the next cyclis.

INTERPRETATION

The first cyclis was started with the meeting among the research team. The researcher gave the example of the lesson plan that was used BAJAPRETA model to F. Eka Safitri, as the chemistry teacher at SMAN 1 Indralaya Utara. The next meeting the teacher had made the lesson plan used BAJARETA model for teaching material The equivalen of redoks reaction in acid. In this meeting they agreed 1) to make the motivation words in order to make the students confident to raise their hands, when they were asked to present, to respond, and to make the conclusion of learning activities, 2) the students sat based on the squance number, the teaching and learning process in the classroom would be done on Wednesday, September 11 2013, the lesson would be began at 12.30 WIB, 3) the teaching material and the lesson plan were given by the teacher of chemistry lesson at SMAN 1 Indralaya Utara to the students on Saturday September 7 2013. 4) Each student was given two sheets of cartoon to answer the question in the lesson plan.5) Bajapreta model was started by reading the teaching material, then answering the question which was prepared by the teacher in the lesson plan. This activity was done by the students in their home. In the classrom the students were asked to raise their hands to presents their homework. If all the students raised their hands so it would be voted by the teacher to choose the students who would present. The students were also asked to raise their hands when they responded the presentation and made the conclusion. The teacher prepared motivation words to make the students active.

Based on the observasion and reflection: 12 students (40%) were not shy to raise their hands when they were asked to present and to respond their friends eventhough they had prepared themselves to answer the question in the lesson plan at home. It was assumed because the teacher didn't give enough motivation to the students, and this would be done at the next cyclis.



Picture 1. Student was presenting

The second cyclis was started with the meeting among the research team. The researcher gave the example of a lesson plan used BAJAPRETA model to F. Eka Safitri, as the chemistry teacher at SMAN 1 Indralaya Utara. The next meeting the teacher had made the lesson plan used BAJARETA model for teaching material “The equivalen of redoks reaction uses oxidation number”, finally the teacher must repair the weaknesses in the first cyclis. The researcher also gave the suggestion to the teacher in order to reduce the calculation in this material. In this meeting they agreed: 1) The test item was similar to the example in the teacing and learning activity and every students sat based on the squance number that had been prepared. 2)The teaching and learning process in the classroom would be done on Wednesday, September 25 2013, the lesson would be begun at 12.30 WIB.3) The teaching material and the lesson plan were given by the teacher to the students on Saturday September 21, 2013. 4) Each student was given two sheets of cartoon to answer the question in the lesson plan. 5) Bajapreta model was started by reading the teaching material, then answering the question which was prepared by the teacher in the lesson plan. This activity was done by the students in their home. In the classrom the students were asked to raise their hands to present their homeworks. If all the students raised their hands so it would be voted by the teacher to choose the students who would present. The students were also asked to raise their hands when they responded the presentation and made the conclusion.6) The teacher prepared motivation words in order to make the students active.7) That motivation words shown in cartoon paper in preactivities. Based on the observasion and reflection: 30 students (100%) were not shy to raise their hands when they were asked to present and to respond their friends because they had prepared themselves to answer the question in the lesson plan at home. It was assumed because the teacher gave enough motivation to the students.

Picture 2. All of the students raised their hands to present their answers at the second cyclic



The third cyclic was started with the meeting among the research team. The researcher gave the example of a lesson plan used BAJAPRETA model to F. Eka Safitri, as the chemistry teacher at SMAN 1 Indralaya Utara. The next meeting the teacher had made the lesson plan used BAJARETA model for teaching material “Voltage Cell”, finally the teacher must repair the weaknesses in the second cyclic. The researcher also gave the suggestion to the teacher in order to reduce the calculation in this material. In this meeting they agreed: 1) The test item was similar to the example in the teaching and learning activity and every students sat based on the squance number that had been prepared. 2) The teaching and learning process in the classroom would be done on Wednesday, October 9, 2013, the lesson would be begun at 12.30 WIB.3) The teaching material and the lesson plan were given by the teacher to the students on Saturday october 9, 2013. 4) Each student was given two sheets of cartoon to answer the question in the lesson plan. 5) Bajapreta model was started by reading the teaching material, then answering the question which was prepared by the teacher in the lesson plan. This activity was done by the students in their home. In the classrom the students were asked to raise their hands to present their homeworks. If all the students raised their hands so it would be voted by the teacher to choose the students who would present. The students were also asked to raise their hands when they responded the presentation and made the conclusion. 6) The teacher prepared motivation words to make the students active.7) That motivation words shown in cartoon paper in preactivities. Based on the observasion and reflection: 30 students (100%) were not shy to raise their hands when their were asked to present and to respond their friends because they had prepared themselves to answer the question in the lesson plan at home. It was assumed because the teacher gave enough motivation to the students.

Picture 3. All of the students raised their hands to present their answers at the third cyclic



Picture 4. Reflection at The third cyclis



CONCLUSION AND SUGGESTION

Conclusion

From the research, it could be concluded that the activity of the students on each three cycles were 40%, 100%, and 100% of the students raised their hands. This research used BAJAPRETA model (reading the teaching material in lesson plan, answering the question, presenting the answer, responding the presentation). The students learning activities at the first, second, and the third were 40%, 100% and 100% students raised their hands by using bajapreta model (reading and answering the material on lesson plan; answering the question in the lesson plan, presenting the result of the answer; responding the presentation; concluding; final evaluation test and giving weekly assignment) for chemistry lesson at the first semester at academic year 2013/2014. the increase from 40%, into 100 % caused by the students were reminded or motivated frequently to raise their hands when they were asked to present the result of the answer or to respond toward the presentation and to conclude the learning activities. the maximum student activities in learning from the first cyclis, second and the third was 100 %. the output chemistry learning also increased from the first cyclis, second, and the third were about 74,5 ; 75,0 ; and 100,0. the increase of the output chemistry learning at the third cyclis was caused by the item test was similar to the example in the learning activities.



Suggestion

The chemistry teacher were expected to use bajapreta model to increase the activity and the output of students' learning.

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