

# Implementation of Cooperative Learning Model by Greeting and Question Technique to Improve the Learning Outcomes and Activities Students in SMA 1 Bengkulu

Habibi Hidayat<sup>a,\*</sup>, Salastri Rohiat<sup>b</sup>, Amrul Bahar<sup>b</sup>

<sup>a</sup>Department of Chemistry, Faculty of Mathematics and Natural Sciences, Universitas Islam Indonesia, Yogyakarta, Indonesia

<sup>b</sup>Department of Chemistry Education, Faculty of Teacher Training and Education, Universitas Bengkulu, Jl. WR. Supratma, Kandang Limun Bengkulu 38371, Indonesia

\*Corresponding author: habibihidayat13@uii.ac.id

**ABSTRACT:** Cooperative learning model is one learning model of activities and interactions between students to motivate each other and help each other in mastering subject matter to achieve maximum achievement. This research was conducted in n cycles. Each cycle is carried out by the changes to be achieved starting from initial reflection to returning to analysis and reflection. The average value of students has increased in each cycle of 50.75 in cycle 1, then increased in cycle 2 that is equal to 52.2 and cycle 3 to 72.75. teacher activity during the chemistry learning process in the classroom for each cycle using the type cooperative learning model with greeting and questions techniques continued to increase namely from an average score of 30 to 34.5 and increased very well in the cycle to 3 which is equal to 42 with good criteria while for student activity the average score of 26 to 31.5 and increased very well in the third cycle that is equal to 39 with good criteria. The conclusion is that the implementation of cooperative learning model with greeting and question techniques can improve the learning outcomes and activities of students in SMA 1 Bengkulu.

**Keywords:** cooperative learning, greeting and question, learning outcome

## INTRODUCTION

The development of modern science and technology forces humans to continue to produce changes [1]. Cooperative learning is the learning process in which individuals learn in a small group with the help of each other [2]. Through the world of education, we can produce people who are intelligent, independent and can compete at the international level, so that humans can obtain prosperity to improve their lives and lives. The government has made various efforts to improve the quality of educational outcomes. The government in collaboration with the school continues to make improvements both in terms of administration, management, roles, functions [3] and operational education in schools. Chemistry is needed in life [4], specifically, chemistry deals with studying the composition, structure, nature, transformation, dynamics, and energy of substances that involve skills and reasoning [5].

Intrinsic factors from student learning can be in the form of motivation that comes from within students. Low motivation from students makes students passive, bored, and lazy to learn so students do not understand what is conveyed by the teacher. Extrinsic factors are factors that originate from outside the student, which can be in the form of the surrounding environment, strategy methods or approaches used by teachers in the learning process carried out in the classroom [6]. If the methods, strategies, and approaches used by the teacher are not appropriate then the planned learning objectives will not be achieved optimally. Conversely, if the methods, strategies, and approaches used by the teacher are appropriate and appropriate, then the objectives of the planned learning can be achieved more optimally.

Based on observations and interviews conducted by researchers with a chemistry teacher at Senior high school 1 Bengkulu City, in the process of teaching and learning students always experience difficulties and are lazy to work on the questions given by the teacher. This can be seen from the test results obtained by students with an average value of 40.78. In chemistry learning activities in the

classroom, if the teacher gives questions to students, students tend to wait for the results or answers from one of their classmates who are already working so that students look passive in the process of learning chemistry. This behaviour is one of the causes of low student chemistry learning outcomes. In addition to passive student activities, the low student chemistry learning outcomes are also due to the lack of learning motivation caused by the teaching and learning process carried out by the teacher in class because they only use lecture methods and media that are not varied namely only using blackboards and markers.

This is reinforced by the results of the researcher's interview with one of the students who stated that the teacher in delivering learning material always uses conventional learning methods (lecture method) so that the teacher has more role. This causes students to be passive and just quietly accept the lessons given by the teacher. In fact, in learning chemistry students not only have to know facts, concepts or principles but also are skilled to be able to apply their knowledge in dealing with problems that occur in life and life, so that the potential that is around can be utilized to the maximum. If this problem is left and continues continuously, graduates as the next generation of this nation especially in chemistry subjects will find it difficult to compete with graduates from other countries.

Based on the description above, then to improve learning outcomes and students can better understand the chemical material delivered by the teacher in the teaching and learning process in the classroom, the teacher must try to find and use teaching strategies that can involve students. So that students become more active and concentrate while studying. Teacher learning patterns must refer to the four pillars by united nations educational, scientific and cultural organization (UNESCO). So, the teacher can play a role as a facilitator, motivator, creator, and innovator [3]. Improvement efforts that are considered appropriate to improve the results and processes of learning chemistry of students in the classroom are the improvement of learning methods and models by applying of cooperative learning model with student team achievement division (STAD) type greeting and question techniques namely by forming small groups with a heterogeneous ability to work together to achieve a common goal.

## **METHODS**

In the process of this research carried out as many as n cycles. Each cycle is carried out by the changes to be achieved starting from initial reflection to returning to analysis and reflection. The factors that will be examined, among others: learning outcomes, namely the average value of students in each cycle and student activities during teaching and learning activities take place. Data analysis techniques obtained from the test sheet and observation sheet were analyzed descriptively.

## **RESULT AND DISCUSSION**

Based on the results of the initial reflections from student tests obtained from chemistry teachers for X3 class, the average value of students was 46.7. The mastery of students learning chemistry classically has not been achieved based on the school curriculum. Completion of chemistry learning for students in SMA 1 Bengkulu classically if 85% of students get a value of  $\geq 60$ . In general, several problems cause low student chemistry learning outcomes, among others, are at the time of the teaching and learning activities in the classroom that were taking place, there were still many students who were busy with their activities. In addition in explaining the subject matter to students, teachers still act more actively than students, so students become passive.

The teacher explains the subject Hydrocarbons then the teacher explains the material to students in the outline using Molymood. It is intended that the teacher does not play too much role so that students will become more active. Then students sit according to the group. The names of the groups in cycle 1 include, among others: Butane, cycloalkanes, saturates, methane, isomers, alkyl, and alkadiene. In working on discussion questions the teacher asks that students work together with members of the group. It is intended that the answers obtained are the results of group work. The teacher acts as a facilitator and motivator. The teacher asks the group representative to take a lottery so that one group can present the results of the discussion in front of the class while the other group is asked to respond to the answer. Next, the teacher asks the group to collect one answer sheet for their discussion results to be assessed.

A few moments later the teacher asked the group representative to take the envelope in which there was a lottery and questions that had been prepared by the teacher, students are asked to work on the problems according to the lottery numbers that they get. Then representatives from the group designated by the teacher to prepare to send the questions they have obtained to the next group. Before sending

questions to another group, students first convey their group's typical cheers in front of the class. The alkyne group was asked to give their greetings and questions in front of the class to the alkadiene group. The student first greets their group, Alkyl ... yes, the others go to the sea. Next, the students sent the questions they had worked on to the alkadiene. Then the representatives from the alkadiene group are appointed by the teacher working on the problem in front of the class while the other groups pay attention and the sending group matches their answers. If there is something that is not yet understood, students can ask questions directly, the group sending questions can provide responses and help the group presentations. After that, the teacher concludes learning material and teacher gives homework to students. So, students better understand and are trained to master the subject matter that has been learned.

### Student Learning Outcome

Post-test are used to measuring the level of student understanding carried out at the end of the meeting. The results of the post-test analysis Table 1.

**TABLE 1.** Test results for each cycle

No	Condition of class	Cycle 1	Cycle 2	Cycle 3
1	Total number of students	40	40	40
2	Number of students taking the test	40	40	40
3.	Number of students who have completed their studies	14	21	34
4.	Average student grade	50.75	52.2	72.75
5.	Percentage of classical absorption (%)	50.75	52.2	72.75
6.	Percentage of mastery learning (%)	35	52.2	85
	Information	Not complete	Not complete	Complete

**Table 1** showing that the average value of students has increased in each cycle of 50.75 in cycle 1, then increased in cycle 2 that is equal to 52.2 and cycle 3 to 72.75. The percentage of classical absorption also increased from 50.75% to 52.2% and the highest in cycle 3 was 72.75%. In cycle 1, the student has not yet finished learning because the percentage of completeness is 35%, cycle 2 is still the same as students not yet finished but have experienced an increase in the value of mastery learning that is equal to 52.5%. After reflection and improvements in cycle 3, many students complete learning with a percentage of 85%.

### Observation Results of Teacher and Student Activities

From the observations that have been made by the observers in each cycle obtained observations of teacher and student activities using the observation sheet as follows:

**TABLE 2.** Results of observations of the Teacher's activity each cycle

No	Observer	Score		
		Cycle 1	Cycle 2	Cycle 3
1.	Observer 1	30	33	41
2.	Observer 2	30	36	43
	Overall score	60	69	84
	Average score	30	34,5	42
	Criteria	enough	enough	good

**Table 2** showing that the teacher's activities during the chemistry learning process in the classroom for each cycle using cooperative learning model with STAD type greeting and question techniques continue to increase that is an average score of 30 to 34.5 and increased very well in the third cycle that is equal to 42 with good criteria.

**TABLE 3.** Results of observation of student activities for each cycle

No	Observer	Score		
		Cycle 1	Cycle 2	Cycle 3
1.	Observer 1	27	31	40
2	Observer 2	25	32	38
Overall score		52	63	78
Average score		26	31,5	39
Criteria		enough	enough	good

**Table 3** showing that the activities of students during the chemistry learning process in the classroom for each cycle using cooperative learning model with STAD type greeting and question techniques continue to increase namely from an average score of 26 to 31.5 and increasing very well in the third cycle that is equal to 39 with good criteria. From the research that has been done, there are strengths and weaknesses in the application of cooperative learning model with STAD type greeting and question techniques. The advantages of this model, learners always work together and enhance the values in the group. Every student worked actively to succeed together but also become a peer tutor [7]. While Weaknesses from cooperative learning model with STAD type greeting and question techniques, that is a limited time in the learning process and class conditions during the learning process that are ongoing are difficult to control.

## CONCLUSION

The conclusion that the implementation of cooperative learning model with STAD type greeting and question techniques can improve the learning outcomes of chemistry and the activities of students in SMA 1 Bengkulu.

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