THE EFFECT OF APPLYING COOPERATIVE LEARNING MODEL
SEND GREETINGS AND QUESTIONS TECHNIQUE TOWARD LEARNING
OUTCOME IN MATHEMATIC CLASS AT SMA 3 PARIAMAN

Jumrawarsi¹, Ratna Juwita Purnama Sari²
STKIP YDB Lubuk Alung
Jumrawarsi.12@gmail.com

ABSTRACT
This research is aimed to clarify the effectiveness of applying of cooperative learning model send
ghreeting and questions technique toward learning outcome in mathematics class XI IPA SMAN 3
Pariaman. The design of this research was randomized experiment with control group only design.
The populations of the research are all students of class XI IPA SMAN 3 Pariaman academic year
2017/2018. The sample was two of fourth classes; both classes were XI IPA 1 as experimental class and
XI IPA 2 as control class. The technique of analyzing data was hypothesis t-test. The result of this
research shown that means score of experiments class was 74 and the average math learning
outcomes means control class was 66 averages higher than the experiment class. The result of t-

INTRODUCTION

Cooperative learning is a learning activity that uses the learning patterns of students flocking to
establish cooperation and interdependence in the structure of tasks, goals, and reward (Ibrahim in
Rusman, 2012: 208). Cooperative learning is not the same as simply learning in groups. Cooperative
teaching system is defined as a system of work or study groups are structured. There are basic
elements that distinguish cooperative learning with the division of the group performed at random.
Implementation of cooperative learning procedures correctly will allow educators to manage the class
effectively (Lie, 2010: 29).

Cooperative learning has many techniques, one of the techniques is send greeting and questions
technique. According to Lie (2010: 58) "teaching and learning of send greeting and questions
technique giving students chance to practice their knowledge and skills. Students create their own
questions so it will feel more motivated to learn and to answer questions made by his classmates".
According Sugiyanto (2009: 51) "Send greeting and questions technique provide a chance for
students to practice their knowledge and skills. Students create their own questions that will feel
encouraged to learn and answer questions made by his classmates ". Meanwhile, according to Agus
Suprijono (2011: 107) that send greeting and questions technique was developed to train the students
have the ability and skills to ask and answer questions". From some of these opinions can be
concluded that the technique of send greetings and questions to make students more active because
they are compelled to answer questions made by his classmates. With the technique of send greeting
and questions technique can train student skills in speaking, discussing and asking.

Based on the observation at SMAN 3 Pariaman obtained a description that the learning
process was initiated by the teacher explains the material, giving the example problems, and provide
exercise. The teacher gives examples of questions relating to the material, the students only as a
listener, when given the chance to ask the students tend to be silent. This resulted in the students tend
to be passive during the learning process so that when the teacher gives students practice difficult to resolve, only a few students are doing these exercises. Model Cooperative Learning Cooperative learning is the ideal solution to the problem, which provides a chance to interact in a cooperative and are not banal to the students of different ethnic backgrounds (Slavin, 2008: 103). In order to achieve maximum results, the five elements of the learning model of mutual cooperation should be applied, namely: positive interdependence, individual responsibility, face to face, communication between members, the evaluation process of the group (Lie, 2007: 31). 1. Positive interdependence of individual responsibility 2. 3. 4. Face to face communication between members 5. Evaluation Cooperative Learning Model group process Mechanical Problem send greetings and send greeting cooperative learning techniques and about giving students the opportunity to practice their knowledge and skills. In making the matter itself will have difficulties and confusion in making the matter and will frustrate the students, then the steps of cooperative learning techniques and exchanging greetings this matter further developed by Lie (2007: 58), such measures are: (a) The teacher divides the students in a group of 4-5 people and each group has sent one person to take a matter that had been prepared by a lottery teachers, and students to discuss the questions that have been taken. (b) Each group sent a delegation that will convey the greetings and questions from the group. (c) Each group works on the problems submissions from other groups. (d) Answer each group were matched with groups that submitted answers. Learning outcomes is closely related to the learning process.

Cooperative learning can provide a space for students to participate actively and independently, as well as instilling responsible nature and work together. Cooperative learning emphasizes on cooperation in small groups and help each other in learning. In addition to the use of cooperative learning, I also use learning techniques that can be used to mutually utilize existing capabilities of the technique send greetings and questions. In addition, students are given the freedom to create distinctive greeting of their group who can evoke the spirit of learning. With a pleasant atmosphere, students will feel more comfortable and enthusiastic about learning that is expected to improve students' mathematics learning outcomes. Students are divided into small groups and create their own questions of the material being studied to be sent to another group. Thus, students will feel more motivated to learn and to answer questions made by his classmates. In addition, students are given the freedom to create distinctive greeting of their group who can evoke the spirit of learning. With good atmosphere, students will feel more comfortable and enthusiastic about learning that is expected to improve students' mathematics learning outcomes.

**RESEARCH METHODS**

The design of this research was quantitative research. The design of the study is a Randomized Control Group Only Design. In this study, the treatment given to the experimental class is the applying of cooperative learning model send greeting and questions technique. In the control group used conventional learning models. Table design of the study stated as follows

<table>
<thead>
<tr>
<th>Experimental Design Posttest Control Group Design</th>
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<tbody>
<tr>
<td>Class</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Experiment</td>
</tr>
<tr>
<td>Control</td>
</tr>
</tbody>
</table>

X = Model send send greeting and questions technique
T = Posttest
The population of this research was all students of class XI IPA SMAN 3 2017/2018 academic year consisting of four classes. In this study, the students from the two classes taken as samples are students of class IX IPA 1 as an experimental class using Cooperative learning model send greeting and questions technique. Meanwhile, students of class IX IPA 2 as grade control using conventional learning strategies. The research instrument was test, the test is based on the topics that are taught in this study. Before the test was given to members of the sample, it must first be tested. The trial aims to determine the validity of the test, the level of difficulty, reliability of the test overall.

**FINDINGS AND DISCUSSIONS**

The research is the application of learning cooperative model send greeting and questions technique on mathematical class. The research was carried out during eight meetings. Before doing the study, the researchers first do a pre-test of the two classes. Results of preliminary data analysis indicate that the data are not normally distributed in experimental class, while the control class data is normally distributed. Implementation of the final test was attended by 32 students in the experimental class and 32 students in the control class.

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>X</th>
<th>s²</th>
<th>S</th>
<th>Xmax</th>
<th>Xmin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>32</td>
<td>74</td>
<td>82.329</td>
<td>9.074</td>
<td>93</td>
<td>57</td>
</tr>
<tr>
<td>Control</td>
<td>32</td>
<td>66</td>
<td>96.544</td>
<td>9.83</td>
<td>83</td>
<td>43</td>
</tr>
</tbody>
</table>

After getting a different treatment, it appears that the data post-test mathematical capabilities of the two classes are different. It can be seen that the Mean score of students' learning outcomes in the experimental class is higher than the control class. Based on the results of data processing and analysis, there was found an increasing in the students learning outcome who take model send greeting and questions technique.

The result of this research shown that means score of experiments class was 74 and the average math learning outcomes means control class was 66 averages higher than the experiment class. The result of t-test analysis was obtained \( t = 6.46 \) and \( t_{table} = 1.67 \) on the real level of 0.05 with \( df = 56 \). \( t_{calculate} > t_{table} \). The \( H_0 \) was rejected and \( H_1 \) was accepted, so it is concluded that applying of cooperative learning model send greeting and questions technique provides a significant effect of the learning outcomes in mathematic class XI IPA SMAN 3 Pariaman.

Based on the data obtained, it was the cognitive ability of students to learn by implementing cooperative learning model send greeting and questions technique better than students in teaching with conventional learning. Improved learning outcomes in the experimental class after implementation of cooperative learning techniques send greetings because students are already familiar with the material of learning, in which students are invited to create a problem / question and answer so that the knowledge and thinking skills students developed. This is in accordance with the advantages of cooperative learning techniques are exchanging greetings and questions can train students' knowledge, training skills of students, and can be used on all subjects (Huda, 2015: 137). In the control class little changes in students' mathematics learning outcome, this is due to the learning process in the classroom control using conventional learning where the teacher that active role as a teacher. Students only served to listen to and record the lessons. Students look tend to be passive. This was seen when the teacher gives the opportunity to ask a few students who would ask. In addition, when entering new material students tend to forget the material that has been taught, this condition have an impact on students' outcome are not satisfactory. According to Lie (2010: 58) "teaching and learning of send greeting and questions technique giving students chance to practice their knowledge and skills. Students create their own questions so it will feel more motivated to learn and to answer questions made by his classmates".
CONCLUSION
The result of this research shown that means score of experiments class was 74 and the average math learning outcomes means control class was 66 averages higher than the experiment class. The result of $t$-test analysis was obtained $t = 6.46$ and $t$ table $= 1.67$ on the real level of 0.05 with df $= 56$, $t_{calculate} > t_{table}$. The $H_0$ was rejected and $H_1$ was accepted, so it is concluded that applying of cooperative learning model send greeting and questions technique provides a significant effect of the learning outcomes in mathematic class XI IPA SMAN 3 Pariaman.

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REFERENCES


