Abstract

This research was conducted to determine (1) whether there is a difference between the results of the study chemistry students taught by administering tasks in groups through the learning model of CRH compared results of study chemistry students taught by administering tasks individually through instructional model of CRH on the material properties of Colligative solution. (2) whether the character is the responsibility of students to correlate with an increase in positive results of the study chemistry students at the granting by the Group and the individual through the learning model of CRH on the material properties of Colligative solution. Hypothesis testing results obtained $t_{hitung} > t_{table}$ (3.24 > 1.99) with 5% significant level ($\alpha = 0.05$) so Ha accepted which means (1) any difference granting on the model of the CRH learning responsibility and results studied chemistry students on the material properties of colligative solution. The magnitude of the difference in granting individuals and groups via the learning model CRH can be seen from the magnitude of the increase in the result of chemical learning students. Improved results for the students classes studied chemistry experiments I of 0.574 (57.4%) and improving the results of study chemistry experiment grade II of 0.547 (54.7%). Judging from the increase in the results studied chemistry students in the experimental class I and class II experiments into the gain medium ($0.3 \leq g \leq 0.7$). The magnitude of the difference in improvement of results of study chemistry students who studied with the granting to groups and individuals through the learning model of CRH on the material properties of Coligative solution obtained amounted to 2.7%. (2) character student responsibility correlated positively with the results of the experiment studied chemistry grade I and II experiments amounted to 0.98. Then it can be inferred that the administering tasks on the model results to CRH learning study chemistry students and correlates positively with respect to the character of responsibility of students on the material properties of Colligative solution.

Keywords : task, CRH, responsibility, result of study, colligative solution

A. PREFACE

Learning is a system, which consists of various components that are interconnected with each other. The components include: objectives, materials, methods and evaluation. The fourth component of the learning must be considered by teachers in selecting and determining the teaching models that will be used in learning activities.

Preliminary observations made to the learning process in Private Senior High School of Muhammadiyah 2 Medan, obtained information that during the learning process, teachers have to empower school facilities and infrastructure, but the students have not been able to achieve individual competencies required to follow the lessons continued.
Some students have not learned to the level of implementation and analysis. New students are able to memorize and understand facts, concepts at the level of memory because of the learning system, teachers are more inclined to take part or teacher centered learning.

According Trianto (2010) to treat the condition, need efforts to improve the learning process as a strategy to improve learning outcomes chemistry students in the learning process, and one way to use cooperative learning such as cooperative learning model Course Review Horay. Research from Refi Yuanita (2012) on the implementation of cooperative learning model Course Review Horay found to improving student learning outcomes at the high category invitation N-value gain of 0.735.

Research of Ruth Christine Sinulingga (2010) showed that students taught by giving the task in groups gives the average increase in value is higher than students taught by giving the task individually.

According to Suharta (2012), responsible character formed is also a very important and essential thing for the students as the basis for preparing qualified human resources to develop the nation and state of Indonesia. Character education is integrated in learning is expected to grow a superior personality as expected in the objectives of the National Education.

From the above description to investigate how far the results of studying chemistry students with cooperative learning and giving homework so that students can apply the character of responsibility in them, hence the title of the study: "Influence of Giving Task On Learning Model Course Review Horay Against Responsibility and Learning Result of Chemistry Student on Material of Colligative Solution"

**B. RESEARCH METHODOLOGY**

The population in this study were all students of class XII first half Private SMA Muhammadiyah 2 Medan academic year 2013/2014, which consists of two classes, namely class XII IPA 1 and XII IPA 2, each class numbered 30 students, and is taken as the total sample.

Through the draw, obtained class XII IPA 2 as an experimental class I and class XII IPA 1 as an experimental class II.

**C. DATA COLLECTION TECHNIQUE**

In order to reach the research purpose, Then compiled the following procedure: Before entering the material colligative properties teacher giving a pretest for students to know the initial ability of students in class experiments 1 and 2, then perform the learning
process using the learning model Course Review Horay with giving tasks in groups and individually in class experiments 1 and 2 on the material colligative properties in class XII.

Character responsibility of the student observed through the same observation during a learning process. Data processed by t test and gain test.

D. RESULT AND DISCUSSION

Based on student learning outcomes data obtained in the study and after the data is tabulated then obtained an average, standard deviation, and variance of the data pre-test and post-test both of the class Experiment I, class II Experiments as the table below:

<table>
<thead>
<tr>
<th>Class</th>
<th>Pre-test</th>
<th></th>
<th>Post-test</th>
<th></th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>S²</td>
<td>S</td>
<td>S²</td>
<td>S</td>
</tr>
<tr>
<td>Experiment 1</td>
<td>29</td>
<td>82,2</td>
<td>78</td>
<td>72,6</td>
<td>0,574</td>
</tr>
<tr>
<td>Experiment 2</td>
<td>27,2</td>
<td>70,3</td>
<td>71</td>
<td>9,23</td>
<td>0,547</td>
</tr>
</tbody>
</table>

Based on the above data it can be seen that the average increase in learning outcomes (gain) on experimental class I is greater than average increase in learning outcomes (gain) on experimental class II.

Then the average data value of pretest and post-test improvement for Experiments class I and class II presented as diagram shown below.

Figure 1. Value Diagram of Pre-Test and Post-Test Experiment Class I and Experiment Class II

Improved learning outcomes (gain) can be seen through the average gain for the class I and class Experiment Experiment II. Following is a summary of data improving student learning outcomes for each sample.
Table 2. Percentage (%) Improvement Learning Results

<table>
<thead>
<tr>
<th>Sample</th>
<th>Average Gain</th>
<th>% Improvement Learning Result</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment Class I</td>
<td>0.574</td>
<td>57.4%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Experiment Class II</td>
<td>0.547</td>
<td>54.7%</td>
<td></td>
</tr>
</tbody>
</table>

Then the data for learning outcome class Experiments I and class II is presented in the form of a diagram as shown as follows:

![Diagram of Percentage (%) Improvement Learning Result](image)

**Figure 2.** Diagram of Percentage (%) Improvement Learning Result

From the above data it can be seen that the % increase in learning outcomes in experiment class I is higher (57.4%) than the increase in learning outcomes in the experiment class II (54.7%). This shows that learning by learning model CRH group with giving tasks more effective in improving student learning outcomes.

Based on the results of data analysis research instrument before being given a different treatment to the two classes of samples obtained that the average result in learning chemistry experiment class I was 29 ± 8.24 and after being given the task of learning by giving the group CRH acquired through learning model student learning outcomes by 78 ± 7.26.
While for student in the experiment class II before being given treatment gained an average of chemistry student learning outcomes $27.3 \pm 7.03$ and after being given the task of learning by providing individually through learning model CRH gained an average of chemistry student learning outcomes by $71 \pm 9.23$.

model will help the expectation in the achievement of learning objectives. Christine Sinulingga Ruth (2010) also conducted research on the provision of duty in the group that showed that students taught by giving the task in groups gives the average increase in value is higher than students taught by giving the task individually.

Result of hypothesis test obtained $t_{calculated} > t_{table}$ ($3.24 > 1.99$) with significance level of 5% ($\alpha = 0.05$) so that $H_a$ accepted which means the effect of tasks on CRH learning model for the character of the responsibilities and learning outcomes chemistry students on the material colligative solution the amount of the effect of individual and group assignments through CRH learning model can be seen from the improvement of student learning outcomes chemistry. Improvement student learning outcomes for chemistry experiment class I is $0.574$ (57.4%) and the improvement of student learning outcomes chemistry experiment class II amounted to $0.547$ (54.7%). Judging from the increase in the students' learning outcomes chemistry experiment class I and class II experiments into groups gain medium ($0.3 \leq \leq 0.7$ g). The magnitude of differences in learning outcome of students that learned chemistry by providing group and individual tasks through the learning model of CRH on material properties obtained Colligative solution at 2.7%.

According Suharta (2012), formation of responsible character is also a very important and essential thing owned by the students as the basis for preparing qualified human resources to develop the nation and state of Indonesia. Character education is integrated in learning is expected to grow a superior personality as expected in the objectives of the National Education.

Results of this study as well conclude that there is a difference between the results of studying chemistry students that learned by giving the task as a group through learning model CRH compared to the value of learning outcomes chemistry students that learned by giving the task individually through the learning model of CRH on material colligative solution or the value of learning outcomes chemistry students that learned with giving tasks CRH group through learning model is better than the value of the learning outcomes of students that learned chemistry by giving the task individually through the learning model of CRH on the material of Colligative solution.
E. CONCLUSION

Based on the research that has been done, it can be concluded that:

1. The results of the analysis to the formulation of the hypothesis states that there is a difference between learning outcomes of students that learned chemistry by providing group and individual tasks through the learning model of CRH on colligative properties of matter. The magnitude of differences in learning outcome of students that learned chemistry by providing group and individual tasks through the learning model of CRH on material properties obtained Colligative solution at 2.7%.

2. There is a positive correlation between the responsibility of students to chemistry student learning outcomes in the delivery of tasks in groups and individuals through learning model CRH on material colligative properties with a value of \( r \) count of 0.98 and obtained the following data:

3. Percent increase in learning outcomes of students that learned chemistry by giving the task of learning model of the CRH group at 57.4% and the giving individual tasks in learning model CRH of 54.7%.

F. BIBLIOGRAPHY


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