The Effect of Using Clustering in Teaching Descriptive Text Writing to the Seventh Graders at SMP 3 PSKD Jakarta

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Abstract
The purpose of this study was to find out the effect of using clustering in teaching descriptive text writing skill to the seventh graders at SMP 3 PSKD Jakarta. It involved two groups: control and experimental. This implemented in different techniques; conventional method and clustering technique. The conventional method was implemented in the control class; while the clustering technique was implemented in the experimental class. Based on the findings, it was concluded that students need a technique to build students’ interested in writing. However, it should not be the only technique used to improve students’ writing skill.

Keywords: experimental research, clustering technique, descriptive text writing

Introduction
Writing is recognized as an essential skill for educational, business and personal reasons. According to Pardede (2011), writing is also crucial in a second or foreign language learning because of three reasons: (1) writing well is a vital skill for academic or occupational success; (2) writing can be an effective tool for the development of academic language proficiency since learners are more ready to explore advanced lexical or syntactic expression in their written work; and (3) writing across the curriculum can be invaluable for mastering diverse subject matter.
Despite its importance, writing is one of the most difficult skills for foreign learners. Richard and Renandya (2002, p. 303) said that writing is the most difficult skill for second/foreign language learner to master because the skills involved in writing are highly complex. A second/foreign language learner or writer has to pay attention to higher level of skills of planning and organizing as well as level skills of spelling, punctuation, and word choice in an attempt to produce an appropriate comprehensible written text.

Descriptive text is one the functional text that has been taught in junior high school. In descriptive text, students are instructed to describe a thing, person, or other objects. They can describe something to tell the reader what they have known about it. According to Zaida (2014, p. 138) descriptive text is a text which describes a particular person, place, or thing. Furthermore, descriptive text consists of identification, and description. Identification is the part of paragraph that identifies the things to be described, and the description is the part of paragraph that describes the character. The students can use the simple present and adjective clause in writing descriptive text.

The phenomenon was clearly evidenced when the researcher was teaching the seventh graders at SMP 3 PSKD Jakarta. Based on the researcher’s observation and short-termed experiences, the researcher found that the students get bored, passive, and difficult to compose a descriptive text. To a certain extent, the researcher also found that the teacher seemed not to make necessary efforts to create a conducive atmosphere and build the students’ motivations. Moreover, the teaching approach the teacher used was a teacher-centered. Such phenomenon has to be taken into account for which learning objectives are entirely accomplished.

Influential factors of such problem may come from many factors, such as technique and method of teaching, infrastructure, interesting material, and appropriate teaching aids. Clustering, a technique of pre-writing used to find ideas, is regarded as a potential technique in overcoming the problem. Usually clustering is applied in a piece of paper and drew a diagramming or mapping form. According to Langan (2001, p. 22) clustering, also known as diagramming or mapping, is another strategy
that can be used to generate material for a paper. It means that clustering is parallel to diagramming or mapping. Clustering as the one of pre-writing technique may help students solve their problems in writing, especially for generating ideas.

Realizing the effectiveness of clustering to develop students’ descriptive text writing skill, this study was design to find out a empirical truth about the effect of clustering technique on significantly improving the seventh graders of SMP 3 PSKD’s descriptive text writing ability. During the study, the researcher gave the same material to both groups, control and experimental. The clustering technique implemented to the experimental group.

Specifically, the study addressed the following research problem question: Is there any significant effect of using clustering technique on the descriptive text writing skill of the seventh graders at SMP 3 PSKD Jakarta? Thus the experimental hypothesis of this study was: (1) \( H_0 \): There is no significant effect of using clustering on the descriptive text writing skill of the students (2) \( H_a \): There is significant effect of using clustering on the descriptive text writing skill of the students.

**Methodology**

This study was conducted in a month (May 2016) in SMP 3 PSKD Jakarta. The participants of the research were the VII A Class as experimental group; while VII B Class as control group. Each group consists of 14 students. Their English writing skill mastery was approximately the level.

The data was collected using test: pre-test and post-test. The pre-test was administered before conducting the treatment to both groups. After that, the researcher conducted three times treatment. The control group was taught in conventional method. Conventional method is a method in which the teacher roles as the center of learning activities. The experimental group was treated in clustering technique through which the students played more active role and as the center of learning process. After the treatment process, the researcher administered a post-test to both groups. To analyze the data, it used two techniques: descriptive statistic analysis and parametric analysis. Descriptive statistic analysis was used to
the mean, minimum, and maximum scores; while parametric analysis was used to test the hypothesis. To get accurate results of analysis the researcher used SPSS version 17.00 Windows. Before testing the hypothesis, testing normality and homogeneity were employed.

To guarantee the validity and reliability of the pre-test and post-test, the data materials took from students’ handbook, entitled: “English on Sky (EOS)” published by Erlangga in 2007. Consequently, it was assumed that the instrument was valid and reliable.

**Finding and Discussion**

1. **Finding**

A. **Participants’ Initial Competence in Descriptive Text Writing**

Table 1

*Statistic Description of Pre-Test Score in Control and Experimental Groups*

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Group</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
<td>49.00</td>
<td>41.00</td>
<td>58.00</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>56.50</td>
<td>42.00</td>
<td>73.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52.75</td>
<td>41.50</td>
<td>65.50</td>
</tr>
</tbody>
</table>

As shown in Table 1, the mean score of the control was 49.00; while that of the experimental group was 56.50. It indicates that the participants’ initial competence of the experimental group in descriptive text writing was higher than that of the control group. Table 4.1 also indicates that the minimum and maximum scores of the control group were 41.00 and 58.00 respectively; while those of experimental group were 42.00 and 73.00 respectively. The mean, minimum, and maximum scores of the control and experimental groups were respectively calculated as 52.75; 41.50; and 65.50. Based on the Standard Achievement Criteria used at SMP 3 PSKD Jakarta (70.00), the finding on the mean score was far less that 70.00. It implied how low the students’ competence and performance in English writing was.
B. Participants’ Achievement in Descriptive Text Writing

Table 2
Statistic Description of Post-Test and Pre-Test Scores in Control Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Post-Test</td>
<td>62.00</td>
<td>53.00</td>
<td>73.00</td>
</tr>
<tr>
<td></td>
<td>Pre-Test</td>
<td>49.00</td>
<td>41.00</td>
<td>58.00</td>
</tr>
<tr>
<td>Differences (Gains)</td>
<td>13.00</td>
<td>12.00</td>
<td>15.00</td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 2, it is clearly seen that there was an increase of scores in the post-test compared to those in the pre-test, including the maximum score. It could be evidenced through the scores gained of the post-test and pre-test. In the pre-test, the mean score was 49.00; the minimum score was 41.00; and the maximum scores was 58.00. However, after teaching, the post-test increased to 62.00 for mean score; 53.00 for minimum score, and 73.00 for maximum score. It was reasonable because the data of the pre-test scores were the initial scores that reflected their initial average competences and the conventional method factually worked. In addition the mean score did not meet the Standard Achievement Criteria (70.00).

Table 3
Statistic Description of Post-test and Pre-Test Scores in Experimental Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>Post-Test</td>
<td>79.93</td>
<td>70.00</td>
<td>89.00</td>
</tr>
<tr>
<td></td>
<td>Pre-Test</td>
<td>56.50</td>
<td>42.00</td>
<td>73.00</td>
</tr>
<tr>
<td>Differences (Gains)</td>
<td>23.43</td>
<td>28.00</td>
<td>16.00</td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 3, it was clearly seen that in the experimental group, there were increases of scores in the post-test compared to those in the pre-test. The output of descriptive statistic analysis shows that the mean, minimum, and maximum scores of the post-test were respectively 79.93; 70.00; and 89.00 points; while those of the pre-test were respectively 56.50; 42.00; and 73.00 points. Based on the finding, the experimental group met and even more than the Standard Achievement Criteria (70.00).
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Compared to the increase of the control group, the gain scores of the experimental group were highly greater. It could be proved by the calculation results, as follows: mean = 10.43 (23.43-13.00); minimum = 16.00 (28.00 - 12.00); and maximum = 1.00 (16.00 –15.00).

![Figure 1 The Gains in Control and Experimental Groups](image)

C. Analysis Requirement Test

1. Normality Test

Normality test was conducted to determine whether the obtained data was distributed normally or not. The hypothesis statements of normality test were formulated as follows:

H$_0$: The sample data are taken from normally-distributed population;

H$_1$: The sample data are not taken from normally-distributed population.

Test of normality in this research used Komolgorov-Smirnov test whose significance level at (α) of 0.05. A criterion for normal distribution is if the significant score (Sig.) is higher than the significance level (α) of 0.05. The finding of the normality test is shown in the table 4.4.
Based on the Table 4, it is seen that the Sig. value (0.200) > Sig. α (0.05) for the control group. It implies that $H_0$ was accepted and $H_1$ was rejected. In other words, the sample data of the control group were taken from the normally-distributed population. For the experimental group, the Sig. value (0.135) > Sig. α (0.05). It also implies that $H_0$ was accepted and $H_1$ was rejected. It means the sample data of the experimental group were also taken from the normally-distributed population.

### 2. Homogeneity Test

Homogeneity is examined to determine whether the two samples have the same variances (homogeneous) or not. The hypotheses of homogeneity were formulated based on two statements. The hypothesis statements of homogeneity were:

- $H_0$: Sample data are taken from homogeneous population variances;
- $H_1$: Sample data are taken from non-homogeneous population variances.

<table>
<thead>
<tr>
<th>Scores</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on Mean</td>
<td>.180</td>
<td>1</td>
<td>26</td>
<td>.675</td>
</tr>
<tr>
<td>Based on Median</td>
<td>.190</td>
<td>1</td>
<td>26</td>
<td>.663</td>
</tr>
<tr>
<td>Based on Median and with adjusted df</td>
<td>.194</td>
<td>1</td>
<td>25.964</td>
<td>.663</td>
</tr>
<tr>
<td>Based on trimmed mean</td>
<td>.188</td>
<td>1</td>
<td>26</td>
<td>.668</td>
</tr>
</tbody>
</table>
The test of homogeneity used in this research was Levene’s test with a criterion: if the significant value is higher than the significant level (α) (= 0.05), the sample data are taken from the homogeneous population variances (H₀ was accepted). The finding of homogeneity test in the control and experimental groups was shown in the Table 4.5

Based on Table 5, the significant value of homogeneity test result was 0.675. The Sig. value (0.675) was higher than the Sig. α (0.05). It means that the sample data were taken from the homogeneous population variances.

3. Hypotheses Test

Hypothesis of a research was examined in order to know which hypothesis, (H₀) or (Hₐ) is accepted. The hypothesis is conducted after in seventh graders’ writing descriptive text at SMP 3 PSKD Jakarta checking the normality and homogeneity test. In order to test the hypotheses of this research, Independent Sample t-test was used to see the compare means. The hypotheses of this research were formulated as:

H₀: There is no significant effect of using clustering technique in seventh graders’ writing descriptive text at SMP 3 PSKD Jakarta.

Hₐ: There is significant effect of using clustering technique in seventh graders’ writing descriptive text at SMP 3 PSKD Jakarta.

The criteria of decision of the research hypothesis test were as follows:

If Sig. value ≤ Sig. α (0.05), H₀ is rejected or Hₐ is accepted;

If Sig. value > Sig. α (0.05), H₀ is accepted or Hₐ is rejected.
Table 6
The Result of Independent Sample t-Test

<table>
<thead>
<tr>
<th></th>
<th>Equal variances assumed</th>
<th>Equal variances not assumed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levene’s Test for Equality of Variances</td>
<td>F Sig.</td>
<td>.180</td>
</tr>
<tr>
<td>t-test for Equality of Mean</td>
<td>T Df Sig. (2-tailed) Mean Difference Std. Error Difference</td>
<td>-7.592 26 .000 -17.929 2.361</td>
</tr>
<tr>
<td>95% Confidence Interval of the Difference</td>
<td>Lower Upper</td>
<td>-22.783 -13.075</td>
</tr>
</tbody>
</table>

Based on Table 6, it is evidenced that the Sig. value (= 0.00) was smaller than the Sig. α 0.05. It means that $H_0$ is rejected and $H_a$ is accepted. In other words, there was a significant difference between post-test scores in the control group without clustering technique and post-test scores in the experimental group by using clustering technique. Therefore, it could be concluded that clustering technique significantly affected the seventh graders’ descriptive text writing skill at SMP 3 PSKD Jakarta.

2. Discussion

The data obtained in participants’ initial competence of pre-test in control and experimental groups revealed that the mean score were respectively 49.00 points and 56.50 points. Compared to the Standard Achievement Criteria of SMP 3 PSKD Jakarta (70.00), it implied how low the students’ competence and performance in English writing was.
Based on the data participants’ achievement of control group in pre-test and post-test, the increase differences of mean, minimum, and maximum score of pre-test and post-test were respectively 13.00 (62.00 – 49.00) or 26.5%; 12.00 (53.00 - 41.00) or 0.29%; and 15.00 (73.00 – 58.00) or 0.25 %. In general, it could be stated that there was an increase of descriptive text writing score in the control group.

In the data participants’ achievement of experimental group in pre-test and post-test, the differences between the post-test and pre-test scores indicated that as a whole, there was an increase in the post-test in the experimental group. The differences were respectively as follows: mean = 23.43 (79.93 – 56.50) or 41.5%; minimum score = 28.00 (70.00 – 42.00) or 66.6%; and the maximum score = 16.00 (89.00 – 73.00) or 21.9 %.

The hypotheses test revealed that the Sig. value (0.000) < Sig. α 0.05. In consequence, H₀ was rejected and Hₐ was accepted. It means that there was a significant effect of using clustering technique on students’ descriptive text writing. The findings reveal that there is a significant effect of students’ descriptive text writing skill by using clustering technique. This can be viewed from some dimensions:(1) There is the difference between the mean score of pre-test and the mean score of post-test, (2) Clustering technique gives the effect to students’ descriptive text writing skill. There is a difference between the mean score of post-test in the control class and the mean score of post-test in the experimental class. The students’ descriptive text writing skill was better than before. They were easier to find ideas, expressing their ideas into written text, and interest to learn, (3) The students more interest in learning activity. They were very enthusiastic when they taught using clustering technique. They also felt enjoy and confidence with this technique.

Conclusions and Suggestions

Along the improvement in treatment of control and experimental groups, the students’ enthusiasm and involvement kept on increasing from treatment to treatment. Especially, the improvement of experimental group that treated by using clustering technique. As shown by the results of post-test conducted at the end of the treatment.
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This indicates that using clustering in teaching descriptive text writing skill is very effective.

Realizing its high effectiveness, English teachers are recommended to use clustering technique as an advantageous alternative to boost junior high school students’ writing skill.

References


