ABSTRACT

THE EFFECT OF USING CLUSTERING TECHNIQUE ON STUDENTS’ ACHIEVEMENT IN WRITING NARRATIVE TEXT

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This research presents a research report on students’ achievement in writing narrative text by using clustering technique between two groups: experimental and control group. The design of this study is experimental group. The population of this study is eleven grade students of SMK Sandhy Putra 2 Medan in the academic year 2017/2018. The samples of this research were the students of Class X-TKJ1 and TKJ2 consisting 31 students as the experimental group, and Class X-TB1 and X-TB2 consisting 31 students as the control group. The data of the test were analyzed by using t-test formula to know the difference of the students’ achievement in writing narrative text. In the pre-test the mean of score of the experimental group 62,93 and the mean of post test of 79,54 and the control group is 61,23 and the post-test 51,06 the results of the t-test 6,10>2,000

Key Words : Clustering technique, Narrative text, Students of SMKSandhy Putra

CHAPTER 1
INTRODUCTION

In learning English there are four skills, they are listening, speaking, reading and writing. The students must master four of language skills so they can use English actively and also passively. Writing as one of the language skill seems to be a very difficulty skill to be mastered. However students have learn English for years, they still find it difficult to master this skill. Al-Khasawneh states that the students appear to have many problems when writing in English, like not knowing how to organize their ideas, because it is a new experience for them. In learning writing, students are taught how to transform their ideas and messages into written form. Written products is influenced by some elements such as vocabularies, grammar, organization, spelling and punctuation.

The capability of writing as the most super power tool in communication shall be own by students. Everyone can convey their feelings, ideas, and think to others. Tabatabaei and Ssefi in Meliya Adriati (2012:138) claim that writing has received a great degree of attention not only because it plays a significant role in transforming knowledge. Due to the writing is the process of transforming ideas, and taught learning is important writing. In addition, writing is chosen to be more effective and efficient to convey information such as in posting letters, business card, leaflet, poster, and much information for marketing a company’s product.

Written product is influenced by some elements such as vocabularies, grammar, organization, spelling and punctuation. In the senior high school, the basic competency that shall be achieved in the writing English subject is that students have abilities in developing and producing written simple function text in the form of recount, descriptive and narrative.
Narrative is a kind of text which is appropriate to tell the activities or events happened in the past time that shows the problematic experience in order to amuse or entertain the readers. It is frequently used to give moral lessons to the readers. The students can use past tenses in writing narrative text. In fact many of Students find some difficulties in building and developing their ideas, choosing the correct words, using the grammar and organizing the text. The problem found that students cannot choose the right words and they do not know how to start their writing. Therefore, acquiring writing skills seems to be more laborious than acquiring the other skills.

There are many factors that cause these problems, and the common factor comes from the English teacher. They do not have sufficient and suitable teaching media which is applied in teaching writing is traditional teacher-centered, which makes boring and ineffective teaching and learning process. Besides, English teachers lack appropriate materials in their classes.

Clustering technique is a helpful technique to see a visual representation of ideas. Clustering is a technique used to see a visual map of our ideas and able to make us think more creatively in making new associations. This technique will lead the students to create and think more creatively in writing. This method is also one of the applications of student-centered learning because the students will be led to be more active rather than the teacher in writing.

Based on the background above, the problem of this study was formulated as follows: “Does clustering technique affect the students’ achievement in writing narrative text?”

This study is intended to find out the effect of applying clustering technique on students’ achievement in writing narrative text. There are four modes of writing; they are descriptive writing, narrative writing, and exposition writing and argumentative. The scope of the study
is focus in writing narrative paragraph especially on legend “Danau Toba” by applying clustering technique. Theoretically, findings of this study are excepted to be significant for:

a. The students

   This study helps students to write Narrative text

b. The teacher

   This study helps teacher in choosing method to teach writing Narrative text

c. The other researcher

   This study helps researcher to add references for further studies in writing.

Partially, findings of this study are excepted to be useful for:

a. The students

   It can help the students to have a good ability in writing Narrative text

b. The teacher

   It can help the teachers to improve the ability of students’ writing by using Clustering Technique.

c. The other researcher

   The result of the research will become one of the sources for researches who want to conduct the same researcher.
CHAPTER II

RESEARCH METHODOLOGY

The study used an experimental research. It is applied in order to investigate the effect of using Clustering Technique in writing narrative text. It is mean that there two groups, namely experimental group and control group. The experimental group given treatment by using Clustering Technique, while control group given treatment by using Conventional Method. The study design is adopted from Ary, et.al (2002:308). Population is group of individuals who have the same characteristic. In other words, population is a number of groups interest to the students, a number of groups which she or he would like to find out results of the study be report.

The Population of the study is the grade XI students of SMK Sandi Putra Medan. There are seven classes of grade XI in that school. There are XI TKJ-1, XI TKJ-2, XI TKJ-3, XI TB-1, XI TB-2, XI AP, AND XI UPW. The total number is 217 students. A sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population according to Creswell in Meisari(2012). It can be elaborated that sample is a group of individuals as a part of population which is chosen as representative data of the whole population. Based on the definition above. The writer in this study used Cluster Random sampling. Each class consists of 31 students. Two classes were selected as the sample. They were XI TKJ-1 and XI TKJ-2, XI TKJ-1as Experimental Group and XI TKJ-2 as Control Group. So, the total of sample are 62 students.

The writer used cluster random sampling technique. Cluster random sampling is a probability sampling technique that randomly selects and uses whole naturally occurring groups such as intact classrooms or entire voting precincts as the samples Bruke (2008 : 159). In
collecting the data, the writer used a test. Furthermore, in experiment, Lodico (2006: 46) says, that between pre-test and post-test must be the same. If there is a fear that students will remember items of pre-test, it can be solved by giving longer time between pre-test and post-test implementation. Based on the definition above, the writer used test to collect the data. The test were pre-test and post-test. To know about the students’ achievement in writing narrative text by using clustering technique, the writer used writing test where the students asked to make a Narrative Text by using clustering technique. To score the test papers, the writer applied analytical method. This method is much better of making when the writer want to inform the students about their achievement (Heaton, 1975: 109). In order to get the data in this study, three procedure taken by the writer namely pre-test, treatment and post-test. This study use content validity of the test. Content validity means the tasks included is representative of the large set of tasks of which the test is supposed to be a sample, we can usually identify content validity observationally if we can clearly define the achievement what we want to measure. In this study we want to measure student’s ability in writing narrative text so the test shall include an essay which has minimal 4 paragraphs and also generic structure and grammatical features of narrative text. The syllabus of senior high school asks student to be able to write narrative text based on the generic structure and grammatical feature so we need construct validity to measure students’write. as explanation above, this study use content validity as the validity of the test. This is made base on the content of curriculum, so it is assume to be valid. Reability is one of the characteristic of good test. Reability refers to the constituency of measurement. It means that if the test is reapeated on different occasions and by different people, the outcome non fluctuates too much scoring writing test involves the subjectivity to find out whether the test was realible or not. So, the researcher use the inter-rater reliability because as Vocklel in Nurransiya (1983: 17)
says that inter-rater reliability, coefficient correlation between the two sets of scores can be computed if two different persons score the test. In order to know whether there are any effect of using clustering technique on students achievement in writing narrative text. T-test used to test the different of each t-result from two groups, namely t-table and t-observed. Furthermore, t-test has a function to test \( H_0 \) (null hypothesis) and \( H_a \) (alternative hypothesis) which are compared. The T-test formula used in analyzing the data. The formula according to Ary et al (2010:172) as follow

\[
t_{obs} = \frac{M_x - M_y}{\sqrt{\frac{d^2 x + d^2 y}{N_x + N_y - 2}(\frac{1}{N_x} + \frac{1}{N_y})}}
\]
CHAPTER III

DATA FINDING

The data in this study was quantitative data, which collected data by score. This study was conducted in two groups, namely experimental group and control group. Experimental group was taught by using Clustering technique while control group wasn’t taught by Conventional Method.

The data were taken from the results of written test; pre-test and post-test. After applying the pre-test and post-test to the experimental and control groups, the students’ scores were obtained.

The lowest score in the pre-test was 48 and the highest score was 79 in experimental group, while the lowest score in post-test was 65 and the highest score was 96. The total score in experimental group of 31 students in pre-test was 1951 the mean was 62.93 and the total score in post-test was 2466, the mean was 79.54. There are different mean scores of pre-test and post-test in experimental group. Their scores are increased after being taught by Clustering technique. It shows that Clustering can improve the students in writing Narrative Text.

The lowest score in the pre-test was 30 and the highest score was 79 in control group, while the lowest score in post-test was 50 and the highest score was 85. The total score in control group of 31 students in pre-test was 1583 the mean was 51.06 and the total score in post-test was 2038, the mean was 65.74. There were different mean scores of pre-test and post-test in control group after being taught written text without Clustering technique. The writer applied Clustering technique in the research. Clustering technique is a technique use to see a visual map of our ideas and able to makeus think more creatively in making new association. Before the technique was applied for
experimental group, the writer gave pre-test to see their ability on written text and after that the researcher gave the treatment, the writer gave post-test to the students in experimental group.

To obtain the reliability of the test, the researcher used Pearson as know as product moment formula as follow:

\[
R = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{(N(\sum X^2) - (\sum X)^2)(N(\sum Y^2) - (\sum Y)^2)}}
\]

where:

N : Number of students
X : Score of the first test
Y : Score of the second test
R : Total number

To obtain the reliability of the test, the researcher used this formula as follow:

\[
R = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{(N(\sum X^2) - (\sum X)^2)(N(\sum Y^2) - (\sum Y)^2)}}
\]

follow:

Where

K = the total of items
M = the total of average

\[S^2\] = the total of standard deviation
According to Arikunto (2013 : 319 ) the categories of coefficient correlation are as the following:

0.800 – 1.00 = The reliability is High

0.600 – 0.800 = The reliability is Fair

0.400 – 0.600 = The reliability is Low

0.200 – 0.0400 = The reliability is very low

0.000 – 0.200 = The reliability is No Correlation. The data result of the test was calculated by using t-test formula as following:

\[
t = \frac{M_x - M_y}{\sqrt{\frac{\sum dX^2 + \sum dY^2}{N_x + N_y - 2}\left(\frac{1}{N_x} + \frac{1}{N_y}\right)}}
\]

Mx = Mean of experimental class

My = Mean of control class

Dx = The standard deviation of experimental class

Dy = Standard deviation of control class

Nx = Total sample of experimental class
Ny = Total sample of control class.

The result of computation by using t-test is called $t$-observed. In this research, the result of computation by using t-test is 6.10 (see appendix E) and the calculation of the score by using t-test for degree of freedom (df) 60 ($N_x+N_y-2$) = (31+31-2 = 60) at level significance 0.05 that the critical value is 2.000 (see appendix F).

The result of computation by using t-test showed that $t$-observed ($t_{obs}$) is higher that $t$-table. It can be seen as follow:

$$t_{obs} > t_{table} (p = 0.05) \text{ with df 60}$$

$$6.10 > 2.000 (0.05) \text{ with df 60}$$

From the explanation above, it means that alternative hypothesis (Ha) is accepted. In other word, Clustering Technique gave a significant effect on student’s achievement in writing narrative text. After collecting and analyzing the data, it was found that the lowest of pre-test in experimental group was 48 and the highest score was 79 in experimental group, while the lowest score in post-test was 65 and the highest score was 96. The lowest score improved significantly, 48 improved to 65 ($65 - 48 = 17$), it meant that the difference of the score was 17 and it also happened to the highest score. 79 improved to 96 ($96 - 79 = 17$). It meant that the different of the score was 17. the mean score of the pre-test was 62.93 and the mean of post-test was 79.54 ($79.54 - 62.93 = 16.61$).

The lowest score of pre-test on control group was 30 and the highest score was 79 in control group, the lowest score was not significantly improved, 30 improved to 79 ($79 - 30 = 49$), it meant that the difference of the score was 49. The highest score was not improved.
significantly improved too, 50 improved to 85 (85-50=35) it meant that the difference of the score was 35. The mean score of pre-test was 51,06 and the post-test was 65,74 (65,74-51,06 = 14,68). It could be concluded that he students in the control group, which was taught without using clustering technique was not significantly different. The students in the experimental group which was taught by using clustering technique is significantly different because the difference of the mean score is 16,61 > 14,68.
CHAPTER IV

CONCLUSION AND SUGGESTION

CONCLUSION

After analyzing the data, the writer concluded that the writing narrative text to affects being taught Clustering technique. It proves from the results of the test which shows t-observed is higher than t-table (6.10 > 2000) at the level significance 0.05. Thus, the experimental group produced higher score than control group. It means that hypothesis is accepted.

Therefore, Clustering technique significantly affects and improves on students’ achievement in writing narrative text. It can be concluded that the use of clustering Technique during teaching and learning process in the classroom can improve the students in writing narrative text.

SUGGESTION

Based on the conclusion of the study above, the researcher suggests the following:

a. Teacher should apply clustering technique as a technique to teaching writing to make variation in the learning process so the teaching and learning process will not be boring because using clustering technique.

b. Students should learn clustering technique to make it easier their learning in writing narrative text.
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