USING CLUSTERING TECHNIQUE TO IMPROVE STUDENTS' WRITING SKILLS OF DESCRIPTIVE TEXT

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ABSTRACT

The paper entitled "*Using clustering technique to improve students' writing skills of descriptive text".* The aim of the research paper is to find out the effectiveness of clustering technique to improve students' writing skills of descriptive text and also to know whether or not the students like being taught the writing descriptive using clustering technique at the second grade of SMP Manggala. The research method is a pre-experimental using 33 students as sample from 104 students of population. To obtain the data, the researcher uses pre-test, post-test and questionnaire. The sample is given the pre-test before the treatment and post-test afterwards. The post-test and the questionnaire are given in order to find out the improvement of the sample after the treatment using clustering technique. The data result of the test is analyzed by using t-test. The finding of this research shows that clustering technique is not effective to improve students' writing skills of descriptive text. It can be seen from the t-observed is lowest that t-table (-1.973 < 2.042) at p = 0.5. That means Ha is rejected and Ho is accepted. Other than that, from the questionnaire data result clustering technique get the positive responses from the participant. Although, clustering technique can not improve their writing skills but can made the students interested in writing descriptive text.

Key words: *Writing Skills, Descriptive Text, Clustering Technique*

ABSTRAK

Penelitian ini berjudul "Penggunaan Teknik Clustering untuk Meningkatkan Keterampilan Siswa dalam Menulis Teks Deskriptif". Tujuan dari penelitian ini adalah untuk mengetahui efektivitas teknik clustering dalam meningkatkan keterampilan menulis teks deskriptif siswa dan apakah siswa menyukai atau tidak diajarkan menulis teks deskriptif dengan menggunakan teknik clustering di kelas 2 SMP Manggala. Metode penelitian yang digunakan adalah pre-eksperimental dengan jumlah sampel 33 siswa dari 104 siswa dari populasi. Untuk memperoleh data, peneliti menggunakan pre-test, post-test dan kuesioner. Sampel diberikan pre-test sebelum perlakuan dan post-test sesudahnya. Post-test dan kuesioner diberikan untuk mengetahui peningkatan sampel setelah dilakukan perlakuan dengan teknik clustering. Data hasil tes dianalisis dengan menggunakan t-tes. Hasil penelitian menunjukkan bahwa teknik clustering tidak efektif untuk meningkatkan keterampilan menulis teks deskriptif siswa. Hal ini dapat dilihat dari t-observasi paling rendah dari t-tabel (-1.973 <2.042) pada p = 0.5. Artinya Ha ditolak dan Ho diterima. Selain itu dari hasil data kuesioner teknik clustering mendapatkan respon yang positif dari siswa. Meskipun teknik clustering tidak dapat meningkatkan keterampilan menulis mereka, tetapi dapat membuat siswa tertarik untuk menulis teks deskriptif.

Kata kunci: Keterampilan Menulis, Teks Deskriptif, Teknik Clustering

INTRODUCTION

Language is a communication tool for human, either speaking or writing, consisting of the use of words and sounds, the human cannot communicate without language, and language is important to learn. According to Algeo (2005:2) "Language is a system of conventional vocal signs by means of which human beings communicate." So every human being has the important tool that can help them communicate called language.

There are four skills in English language that should be acquired by students such as reading, speaking, listening and writing. As Richards & Renandya (2002:303) said "Writing is the most difficult skill for second language learners to master." The difficulty is not only in generating and organizing ideas, but also in translating these ideas into readable text.

Based on the writer experience when teaching writing in junior high school, the students have some difficulties in writing which are, not having ideas to write, lack of vocabulary, and having difficulties in English structure.

According to Kane (2000:17) "Descriptive is about sensory experience—how something looks, sounds, tastes. Mostly it is about visual experience, but description also deals with other kinds of perception."

Teachers must be able to organize the process of teaching activities to make the students understand and interested in learning English writing, especially in writing descriptive text. According to Anthony (1999:63-67) stated in Richards (1963:14) that "Technique is implementation-that which actually take place in classroom." A good technique can help the teachers teach their students in writing skills.

Clustering, also known as diagramming or mapping, is another strategy that can be used to generate material for a paper. This method is helpful for people who like think in a visual way. Clustering, uses lines, boxes, arrows, and circles to show relationships among the ideas and details that occur. Langan (2011:25)

LITERATURE REVIEW

To avoid misunderstanding in interpreting the problems that the researcher gets, it is important to clarufy the terms used in this paper. The researcher will explain some of the term as follow:

Writing

Writing is an activity of expressing an ideas to paper, that readers can read the result of our writing and get more information. As Kane (2000:17) said "Writing is a complex activity", it means that writing is an activity that need hard thinking such as choose the topic, words choice and construct sentences, until revising and proofreading.

On the other definition "Writing is one of the skills in English that the students' should understand about what are the steps of writing, then they can expressing on a paper for finding the right sentences or paragraph, cause thinking and writing has a relationship." (Raimes, 1983:95).

Descriptive Text

Descriptive text is essentially needed for students who want to describe about something physically; a person, place, and thing.. In descriptive text, writers describe person, object, appearances, landscape or phenomenon naturally so they can make the reader imagine and feel it (Alwasilah and Alwasilah:2007:43)

Clustering Technique

Clustering also known as diagramming or mapping, is another strategy that can used to generate material for a paper (Lagan, 2011:25). In clustering writers can use lines, boxes, arrows, and circle, to show relationship among the ideas and details that occur to them. In this paper, the researcher used clustering as an alternative technique in writing descriptive text.

RESEARCH METHODOLOGY

Research Design

This research is cunducted based on the pre-experimental design which is one group pre-test and post-test. The pre-experimental design can be presented as follow:

One group pre-test and post-test design

Group	Pretest	Treatment	Posttest
One group pretest-posttest	✓	√√√	√

Data Collecting Technique

In collecting the data, the researcher follow the step bellow:

1. Giving the students a pre-test. The pre-test carried out to get the data of students score, especially in writing
2. Giving the treatment using clustering technique in teaching descriptive text, from the first meeting until last meeting.
3. Giving the students a post-test. The post-test is given to know how far the students improve writing in descriptive text after teaching writing using clustering tehnique.
4. Giving questionnaire to the students in order to know what their responses in learning writing descriptive text using clustering technique are.

The Data Analysis

1. The test

   The formula for the dependent t-test as follow:

   $$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N\,(N-1)}}}$$

   Which:

   X_1 : the mean of the pre-test

   X_2 : the mean of the post-test

   $\sum D^2$: the sum of the squares of the differences between the pretest and posttest Scores

   N : Number of pairs of scores

   DF : the degree of freedom

   DF : N-1

   (Hatch and Farhady, 1982: 19)

   After collecting the data, the procedure to calculate the data

   Step 1 : subtract the pairs of scores from each other in the following manner

   Step 2 : calculate the mean of the pre test scores (X_1)

   Step 3 : calculate the mean of the post test scores (X_2)

Step 4 : enter the values obtained from step 1-3 into the formula for the dependent t-test.
Step 5 : interpret the result of the computation

2. The Questionnaire

The questionnaire data is transcribed for getting information about the use of clustering technique in the experimental class. The questionnaire is purposed to answer second research question and also support the statement of test result. The data analysis on questionnaire is using percentage formula as follow:

$$x = \frac{Y}{Z} X\ 100$$

Where:
X = Percentage (quality of the answer)
Y = Give amount (total of the respondents' answer)
Z = Total amount (total the respondents)

RESEARCH FINDING AND DISCUSSION

Research Finding

This research was aimed at improving writing skills in the second grade students of SMP Manggala. The total sample was 33 students. This research was used pre-test, post-test and questionnaire to get the data. The pre-experimental research was used as research methodology. The results of pre-test and post-test are discussed in the following section.

a) The Data Analysis

Table The Result of Pre-Test Score

No	Students	X_1
1	Student 1	20
2	Student 2	14
3	Student 3	20
4	Student 4	41
5	Student 5	85.6
6	Student 6	49.4
7	Student 7	37.4
8	Student 8	33
9	Student 9	20.4
10	Student 10	24.8
11	Student 11	44.6
12	Student 12	19.8
13	Student 13	31.8
14	Student 14	32.8
15	Student 15	74

16	Student 16	20
17	Student 17	39.6
18	Student 18	69.4
19	Student 19	67.6
20	Student 20	36.6
21	Student 21	41.4
22	Student 22	36
23	Student 23	63.6
24	Student 24	86
25	Student 25	36
26	Student 26	78.2
27	Student 27	51.6
28	Student 28	27.6
29	Student 29	27
30	Student 30	50.4
31	Student 31	64.2
32	Student 32	18
33	Student 33	20
	$\sum X_1$	1381.8
	$\sum X$	41.87

From the table above the result of the students' pre-test score, from 33 students there were several students who had bad and good scores. The highest score in pre-test was 86 and the lowest score in pre-test was 14. It means that the average of students' pre-test scores is lower than KKM (The Minimum Criterion Mastery) because the minimum criterion mastery of English subject was 70. Therefore the students are given the treatment to improve their writing skills

After giving the treatment, the the researcher giving the post-test to the students and Post-test was conducted in order to know whether or not there was an improvement toward improving students' writing skills after receiving the treatment. The followings are the results of the post-test.

Table The Result of Post-Test Score

No	**Students**	**X_2**
1	Student 1	48
2	Student 2	20
3	Student 3	28
4	Student 4	64
5	Student 5	64.6
6	Student 6	24
7	Student 7	41.8

8	Student 8	54.2
9	Student 9	45.2
10	Student 10	55.6
11	Student 11	44
12	Student 12	73.4
13	Student 13	59.4
14	Student 14	75.8
15	Student 15	36
16	Student 16	43.2
17	Student 17	39.8
18	Student 18	57.8
19	Student 19	28
20	Student 20	64
21	Student 21	60.2
22	Student 22	45.2
23	Student 23	75.2
24	Student 24	63.4
25	Student 25	69.8
26	Student 26	60.2
27	Student 27	37.2
28	Student 28	25.6
29	Student 29	32
30	Student 30	46.6
31	Student 31	65.8
32	Student 32	64
33	Student 33	34
	$\sum X_2$	1646
	$\sum X$	49.88

The table showed the result of students' post-test score. Conducted in August from 33 students those were several students who had bad and good scores. The lower score in post-test was 20 and the highest score of post-test was 75.8. The mean of post-test was 49.88 it means that students post-test score was higher than KKM (Minimum Criterion Mastery) because minimum criterion mastery of English subject was 70. It means that the treatment can help the students in learning writing descriptive text using clustering technique.

b) The Computation of Data

The data of pre-test and post-test were shown in the following table:

Table The Computation T-test

No	Students	X1	X2	D	D2
1	Student 1	20	48	-28	784
2	Student 2	14	20	-6	36
3	Student 3	20	28	-8	64
4	Student 4	41	64	-23	529
5	Student 5	85.6	64.6	21	441
6	Student 6	49.4	24	25.4	645.16
7	Student 7	37.4	41.8	-4.4	19.36
8	Student 8	33	54.2	-21.2	449.44
9	Student 9	20.4	45.2	-24.8	615.04
10	Student 10	24.8	55.6	-30.8	948.64
11	Student 11	44.6	44	0.6	0.36
12	Student 12	19.8	73.4	-53.6	2872.96
13	Student 13	31.8	59.4	-27.6	761.76
14	Student 14	32.8	75.8	-43	1849
15	Student 15	74	36	38	1444
16	Student 16	20	43.2	-23.2	538.24
17	Student 17	39.6	39.8	-0.2	0.04
18	Student 18	69.4	57.8	11.6	134.56
19	Student 19	67.6	28	39.6	1568.16
20	Student 20	36.6	64	-27.4	750.76
21	Student 21	41.4	60.2	-18.8	353.44
22	Student 22	36	45.2	-9.2	84.64
23	Student 23	63.6	75.2	-11.6	134.56
24	Student 24	86	63.4	22.6	510.76
25	Student 25	36	69.8	-33.8	1142.44

26	Student 26	78.2	60.2	18	324
27	Student 27	51.6	37.2	14.4	207.36
28	Student 28	27.6	25.6	2	4
29	Student 29	27	32	-5	25
30	Student 30	50.4	46.6	3.8	14.44
31	Student 31	64.2	65.8	-1.6	2.56
32	Student 32	18	64	-46	2116
33	Student 33	20	34	-14	196
	Total	∑X1 = 1381.8	∑X2 = 1646	∑D = -264.2	∑D2 = 19566.68
				$(\sum D)^2$ = 69,801.64	

From the data above, the researcher computed out the dependent t-test using formula as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}}$$

$$= \frac{41.87 - 49.88}{\sqrt{\frac{19{,}566.68 - \frac{69{,}801.64}{33}}{33(33-1)}}}$$

$$= \frac{-8.01}{\sqrt{\frac{19{,}566.68 - 2{,}115.20}{33(32)}}} = \frac{-8.01}{\sqrt{\frac{17{,}451.48}{1{,}056}}}$$

$$= \frac{-8.01}{\sqrt{16.52}} \quad = \frac{-8.01}{4.06} = -1.973$$

Thus from the computation, the writer obtained the t-test is -1.973. Where the t-table value for N = 33 with df = N-1(33 - 1 = 32) at the level of significant of 05 for two tailed test is 2.042. And the t-test is lower than t-table (-1.973 < 2.042). Therefore, Ho is accepted, and Ha is rejected, stating that using clustering technique is not significantly improve students' writing skill of descriptive text in the second grade of Junior high school.

c) The Questionnaire

Based the pre-test and post-test, the researcher got the data from the questionnaire. It is about students' response toward the clustering technique in learning writing descriptive text. The questionnaire consist of fifteen questions and the following data present the result of the questionnaire:

Table of the Questionnaire Result

No	Statements	Answer Responses				
		1	**2**	**3**	**4**	**5**
1.	Saya menyukai Bahasa Inggris *(I like English)*	- (0%)	2 (6%)	2 (6%)	4 (12%)	25 (75%)
2.	Belajar Bahasa Inggris itu menyenangkan *(Learning English is fun)*	1 (3%)	4 (12%)	3 (9%)	5 (15%)	20 (60%)
3.	Saya bisa memahami pelajaran Bahasa Inggris *(I can understand the English lesson)*	2 (6%)	- (0%)	2 (6%)	8 (24%)	21 (63%)
4.	Pelajaran Bahasa Inggris sangat bermanfaat *(Englsih lesson is very useful)*	5 (15%)	3 (9%)	2 (6%)	3 (9%)	20 (60%)
5.	Saya suka pelajaran Writing *(I like writing)*	4 (12%)	1 (3%)	1 (3%)	8 (24%)	19 (57%)
6.	Pelajaran Writing itu menyenangkan (*Writing is fun)*	- (0%)	3 (9%)	4 (12%)	9 (27%)	17 (51%)
7.	Saya mengetahui tentang Teks Deskripsi *(I know about descriptive text)*	2 (6%)	- (0%)	3 (9%)	8 (24%)	20 (60%)
8.	Teks Deskripsi sangat mudah dipelajari *(Descriptive text is easy to learn)*	2 (6%)	3 (9%)	4 (12%)	6 (18%)	18 (54%)
9.	Saya tidak mengalami kesulitan ketika menulis teks Deskripsi *(I have no difficulty when writing descriptive text)*	2 (6%)	2 (6%)	5 (15%)	7 (21%)	17 (51%)
10.	Saya mengetahui tentang teknik Clustering *(I know about Clustering technique)*	4 (12%)	3 (9%)	- (0%)	8 (24%)	18 (54%)
11.	Menulis menggunakan Teknik Clustering sangat menarik *(Writing using Clustering technique is very interesting)*	- (0%)	4 (12%)	4 (12%)	9 (27%)	20 (60%)
12.	Teknik Clustering membantu saya dalam menemukan ide-ide *(Clustering technique helped me found ideas)*	2 (6%)	- (0%)	2 (4%)	6 (18%)	23 (69%)
13.	Teknik Clustering membuat saya lebih kreatif dalam menulis Bahasa Inggris *(Clustering technique made me more creative in English writing)*	1 (3%)	5 (15%)	- (0%)	12 (36%)	15 (45%)

14.	Menggunakan clustering technique dapat mempersingkat waktu penulisan teks deskripsi *(Using clustering technique can make the time more efficient)*	2 (6%)	3 (9%)	4 (12%)	5 (15%)	19 (57%)
15.	Teknik Clustering perlu diterapkan dalam pembelajaran Bahasa Inggris *(Clustering technique need to be applied in learning English)*	1 (3%)	- (0%)	8 (24%)	16 (48%)	18 (54%)

Based on the questionnaire data above, it can be seen that more than half students in Manggala junior high school at second grade like English subject, as proven by 75% students answered agree which means that they like the English language.

There are 19 students answered strongly agree to the questions about learning English especially writing descriptive text, as proven by 57% or more than half students answered that they like writing.

In learning writing using clustering technique the students could easily find ideas when writing descriptive text, it can be seen while doing the research the students could get the words needed quickly through bubble words.

d) The Discussion of Findings

The research concludes the significant difference between the students score before and after the treatments by using clustering technique to improve students' writing skill of descriptive text.

These are the computing results both pre-test and post-test:

- The score of pre-test (X_1) 1381.8
- The average of pre-test 41.87
- The score of post-test (X_2) 1646
- The average of post-test 49.88
- Degree of freedom (df) 32
- The score of a 05
- The score of t-table 2.042
- The score of t-test -1.973

Thus from the computation, the writer obtained the t-test is -1.973. Where the t-table value for N = 33 with the df = N – 1 (33 - 1 = 32) at the level of significant of 05 for two tailed test is 2.042. As the t-test is lowest than t-table (-1.973<2.042). Therefore, Ho is accepted and Ha is rejected, stating that the using clustering technique to improve students' writing skill of descriptive text in the second grade of junior high school.

CONCLUSION

The problem of the study as stated in Chapter I is "Is there any significant of clustering technique to improve writing skills of descriptive text" at the second grade of Manggala Junior High School. Based on the result of data analysis from writing skill score which gained by students before and after conducting treatment, there were no significant improvements. It means that the use of clustering technique in teaching writing of descriptive text is not effective.

This indicated that the alternative hypothesis stated that there were no significant effects of using clustering technique to improve students' writing skill of descriptive text in the second grade of Manggala Junior High School was rejected. Meanwhile, the null hypothesis stated that there was significant effect of using clustering technique to improve students' writing skill of descriptive text in the second grade of Manggala Junior High School was accepted. It implicated that teaching writing of descriptive text by using clustering technique did not give big impact towards the second grade students' scores at Manggala Junior High School.

From the questionnaire, the researcher concludes that students like being taught descriptive text using clustering technique. It is proven by the students' answers which most of them chose the positive answers such as "agree" and "strongly agree" in the answer sheets.

This work had a major influence, because it showed the very detailed explanation of herbal data can be obtained. Therefore, modeling strategy behavior is needed for struggling students to use clustering technique when they write descriptive text.

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