

THE EFFECT OF BRAINSTORMING TEACHING TECHNIQUE ON STUDENTS' ACHIEVEMENT IN WRITING DESCRIPTIVE TEXT AT MARTURIA COURSE MUARA

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Abstrak. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh Brainstorming Teaching Technique terhadap prestasi belajar siswa dalam menulis teks deskriptif di Marturia Course Muara. Untuk mengetahui jawaban dari masalah penelitian, peneliti menggunakan teori yang terkait, mereka adalah Knapp dan Watkins (2005) & Wilson (2013). Desain penelitian adalah penelitian kuantitatif. Penelitian ini bertujuan untuk mengetahui pengaruh teknik mengajar yang diberikan, apakah itu mempengaruhi objek atau tidak. Populasi penelitian ini adalah 60 siswa SMP yang belajar Bahasa Inggris di Marturia Course Muara. Semuanya digunakan sebagai sampel penelitian ini. 60 siswa dikategorikan ke dalam dua kelompok. Grup A sebagai kelompok kontrol terdiri dari 30 siswa dan Grup B sebagai kelompok eksperimen terdiri dari 30 siswa juga. Peneliti menemukan bahwa rata-rata post-test pada kelompok eksperimen adalah 76,8 dan rata-rata post-test pada kelompok kontrol adalah 73,46. Dia juga menemukan bahwa uji-t lebih tinggi dari t-tabel ($2,58 > 1,672$) pada tingkat signifikansi 5%. Berdasarkan analisis data penelitian ini, peneliti menyimpulkan bahwa Brainstorming Teaching Technique secara signifikan mempengaruhi prestasi siswa dalam menulis teks deskriptif di Marturia Course Muara.

Kata Kunci: Teknik Mengajar Curah Pendapat, Prestasi Siswa, Menulis

Abstract. The aim of this research was to find out the effect of Brainstorming Teaching Technique on students' achievement in writing descriptive text at Marturia Course Muara. To find out the answer of the research problem, researcher used the related theories, they were Knapp and Watkins (2005) & Wilson (2013). The research design was quantitative research. This research aimed to know the effect of a given teaching technique, whether it influenced the object or not. The population of this research was 60 students of Junior High School who learned English at Marturia Course Muara. All of them were used as the sample of this research. The 60 students were categorized into two groups. Group A as the control group consisted of 30 students and Group B as the experimental group consisted of 30 students too. The researcher found that the mean of the post-test in experimental group was 76,8 and the mean of the post-test in control group was 73,46. She also found that t-test was higher than t-table ($2,58 > 1,672$) at the level of significance 5%. Based on the data analysis of this research, the researcher concludes that Brainstorming Teaching Technique significantly affects the achievement of students in writing descriptive text at Marturia Course Muara.

Key Words: Brainstorming Teaching Technique, Students' Achievement, Writing

Introduction

Writing is one way to express what is on our mind or what we are feeling in written. According to Weigle (2002) "Writing is also viewed as a social and cultural phenomenon as it is meaning-making that is socially and culturally shaped and individually and socially purposeful". When writing we can create

several words, sentences and paragraphs or text.

Descriptive text is one of the texts in genre. Descriptive can be used to describe a person, a place or an object. According to Pardiyo (2007:34) descriptive text is a type of written text, which has the specific function to give description about an object (human or non-human) which include person, place,

animal or thing, and it has the aim that was giving description of the object to the reader clearly.

Writing in English is a difficult process. That's why many people difficult to write because writing in English are not the same as Indonesian. In English, the pronunciation is different with writing. Based on the researcher's experience as an English Teacher at Marturia Course Muara, the students' competence on writing was very low. According to the students, learning writing is difficult and they feel afraid when they write in English. So, they were passive in teaching learning process. The main score of the students' were still low of passing grade. It was indicated by two indicators, they are: (1) they got difficulties in grammatically correct sentences (they was a student); (2) they got difficulties to produce various vocabulary to express language function in writing (her skin is brownish).

One way of teaching writing it can be done by brainstorming technique. Brainstorming is group creativity technique by which efforts are made to find a conclusion for a specific problem by gathering a list of ideas of spontaneously contributed by its members. According to Ledbetter(2010:18), brainstorming is the act of spontaneously jotting down ideas in preparation.

Based on the background of this research, the problem of the study is formulated as the following: **“Does the application of Brainstorming Teaching Technique significantly affect the achievement of students in writing descriptive text at Marturia Course Muara?”**. This research was intended to find out whether the application of Brainstorming Teaching Technique significantly affects the achievement of students in writing descriptive text at Marturia Course Muara. Marturia Course Muara serves English Course for students of primary school, junior high school, and senior high school in Kecamatan Muara, North Tapanuli of North Sumatera, Indonesia.

There are three mayor significances of this research. They are (1) this research can be used as reference for other research that has the same interest in

the same field; (2) this research can be used by teachers as a reference to improve their technique in teaching writing and to find the most suitable technique for improving the students' achievement in writing descriptive text; (3) the finding of this research can be used by students to improve their achievement and to learn English especially writing skill.

The hypotheses of this study are proposed in terms of null hypotheses (Ho) and alternative hypotheses (Ha). They are (1) Ha : Brainstorming Teaching Technique significantly affects the achievement of students in writing descriptive text at Marturia Course Muara (2) Ho : Brainstorming Teaching Technique does not significantly affect the achievement of students in writing descriptive text at Marturia Course Muara.

RESEARCH METHODOLOGY

The data was collected by conducting pre-test and post-test to the experimental group and control one. This research used a writing test as the instrument for collecting data. Both groups got the same test either in pre-test or in post-test. The researcher asked the students to write a descriptive writing based on the topic which was given by the researcher. The other instrument which was used by researcher was camera. It was used to take a picture in the field..

Validity and Reliability Testing

To measure whether the test used in this research had a good validity, the researcher analyzed the test from content validity, construct validity and face validity. To ensure that the test was reliable, researcher used Heaton method to analyze it.

Procedure for Collecting Data

There were three procedures made to collect the data in this research, they were (1) pre-test, (2) treatment, and (3) post-test. The pre-test was given to the experimental and control group. It was used to measure the students' achievement in writing descriptive text before applying the treatment. Then the experimental group and control group were taught about the same material, it was writing descriptive text, but they were taught by using different teaching technique. The experimental group was taught by Brainstorming Teaching Technique and control group was taught without

Brainstorming Teaching Technique. After the teaching process,both experimental group and control group were tested by giving a post-test. The post-test was given in order to know the effect of applying brainstorming technique on experimental group.

Technique for Analyzing Data

After, the researcher collected the data then researcher analyzed the data by following steps:

1. Found mean score of each group

$$\bar{X} = \frac{\sum FVII}{N}$$

\bar{X}	= the average score
$\sum FVII$	= sum of the raw score
N	= number of student

2. Found standard deviation of each group

$$S = \frac{\sqrt{\sum d^2}}{N-1}$$

S	= standard deviation
$\sum d^2$	= sum of mean deviation
N	= number of students
1	= constant number

$$SE(\bar{x^e} - \bar{x^c}) = \sqrt{\left(\frac{se}{\sqrt{N1}}\right)^2 + \left(\frac{sc}{\sqrt{N2}}\right)^2}$$

$SE(\bar{x^e} - \bar{x^c})$	= standard error
se	= standard deviation of eVIIperimental
sc	= standard deviation of control
N1	= number of students of eVIIperimental
N2	= number of students of control

(Hatch & Farhady, 1982: 112)

3. Testing Hypothesis

$$t_{test} = \frac{\bar{X^e} - \bar{X^c}}{SE(\bar{x^e} - \bar{x^c})}$$

$\bar{X^e}$	= Mean of Post Test in EVIIperimental
$\bar{X^c}$	= Mean of Post Test in Control
$SE(\bar{x^e} - \bar{x^c})$	= standard error

Data Analysis

1. Pre-test and Post-test Scores in Experimental Group

Based on analysed data, that the total score in pre-test was 1986. Here, it could be calculated that the average score was 66,2. Then, in post-test, the total score was 2304 where the average score was 76,8.

2. Pre-test and Post-test Scores in Control Group

Based on the data, that the total score in pre-test was 1939. It could be calculated that the average score was 64,63. Then, in post-test, the total score was 2204where the average score was 73,46.

Table 1 below shows the progress of students' achievement in writing descriptive text after the treatment.

Table 1. The progress of Students' writing Achievement after Treatment

Group	Pre - Tes t	Pos t- Tes t	Improve ment
Control	64,63	73,46	8,83
Experim ental	66,2	76,8	10,6

Table 4 shows that the average of Pre-Test was 64,63 and Post-test was 73,46 in Control Group, while the average Pre-Test was 66,2 and Post-test was 76,8 in Experimental Group. So, there was an improvement in Control and Experimental Group, but the Experimental Group had a higher improvement than the Control One.

Table 5 below shows the Difference of Post-Test Score in Experimental and Control Group t

3. Post Test Score in Experimental and Cntrol Group and Its Difference

Based on& analysed the data of students' scores of post-test in control group and experimental one. The total score in control group was 2204 and the average score was 73,46, while in experimental group, the total score was 2304 and the average score was 76,8. The difference or the improvement as the whole students got in post test from control to experimental group was 100 with the average was 3,34.

Table 6 below shows the Variance and Standard Deviation

4. Variance and Standard Deviation in Post Test of Experimental Group

Based on analysed data, it was found that the total sum squares of the respondents at the time of administering the post-test in experimental group was 288,8. Those points were necessarily required in order to determine the

standard variation for post-test in experimental group which was in turn compared to the same data at post-test in control group.

The following is the standard deviation of post-test in experimental group:

$$\begin{aligned}
 S^e &= \sqrt{\frac{\sum d^2}{N-1}} \\
 S^e &= \sqrt{\frac{288,8}{30-1}} \\
 S^e &= \sqrt{\frac{288,8}{29}} \\
 S^e &= \sqrt{9,95} \\
 S^e &= \mathbf{3,15}
 \end{aligned}$$

5. Variance and Standard Deviation in Post Test of Control Group

Based on analysed data, it was found that the total sum squares of the respondents at the time of administering the post-test in control group was 1203,6. Those points was necessarily required in order to determine the standard variation for post-test in control group which was in turn compared to the same data at post-test in experimental group.

The following is the standard deviation of post-test in control group:

$$\begin{aligned}
 S^c &= \sqrt{\frac{\sum d^2}{N-1}} \\
 S^c &= \sqrt{\frac{1203,6}{30-1}} \\
 S^c &= \sqrt{\frac{1203,6}{29}} \\
 S^c &= \sqrt{41,5} \\
 S^c &= \mathbf{6,44}
 \end{aligned}$$

6. Hypothesis Test

Testing Hypothesis

Standard Error of the Difference of Mean:

$$SE(x^e - x^c) = \sqrt{\left(\frac{S^e}{\sqrt{N1}}\right)^2 + \left(\frac{S^c}{\sqrt{N2}}\right)^2}$$

$$SE(x^e - x^c) = \sqrt{\left(\frac{3,15}{\sqrt{30}}\right)^2 + \left(\frac{6,44}{\sqrt{30}}\right)^2}$$

$$SE(x^e - x^c) = \sqrt{\left(\frac{3,15}{5,48}\right)^2 + \left(\frac{6,44}{5,48}\right)^2}$$

$$SE(x^e - x^c) = \sqrt{(0,57)^2 + (1,17)^2}$$

$$SE(x^e - x^c) = \sqrt{0,32 + 1,36}$$

$$SE(x^e - x^c) = \sqrt{1,68}$$

$$SE(x^e - x^c) = \mathbf{1,29}$$

Finding out t-test:

$$t_{test} = \frac{\bar{X}^e - \bar{X}^c}{SE(x^e - x^c)}$$

$$t_{test} = \frac{76,8 - 73,46}{1,29}$$

$$t_{test} = \frac{3,34}{1,29}$$

$$t_{test} = \mathbf{2,58}$$

Finding out the degree of freedom (df) as follow:

$$\begin{aligned}
 df &: (N_e - 1) + (N_c - 1) \\
 &: (30 - 1) + (30 - 1) \\
 &: 29 + 29 \\
 &: \mathbf{58}
 \end{aligned}$$

t-table at 5% of level of significance is **1,672**

Based on the formula of hypothesis which was designed before, Null Hypothesis was rejected if t-test was higher than t-table. Referring to this, so the hypothesis could be constructed as follow:

$$\begin{aligned}
 t_{test} &> t_{table \text{ of } 5\%} \\
 2,58 &> 1,672
 \end{aligned}$$

As the score of t-test (2,58) was higher than t-table (1,672) at level of significant 5% for one tailed test, so Null Hypothesis was rejected and Alternative Hypothesis was accepted.

Research Findings

After analyzing the data, the research findings were formulated by the researcher findings, as follows:

1. Brainstorming Teaching Technique significantly affects the students achievement in writing descriptive text at Marturia Course Muara.
2. The difference or the improvement as the whole students got in post test from control to experimental group is 100 and the average is 3,34.
3. The total sum squares of the respondents at the time of administering the post-test in

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experimental group is 288.8 where its standard deviation is 3,15.

4. Meanwhile, the total sum squares of the respondents at the time of administering the post-test in control group is 1203.6 where its standard deviation is 6,44.
5. Testing hypothesis showed that t-test (2,58) is higher than t-table (1,672) at level of significant 5% for one tailed test.

After analyzing the data, it is known that Brainstorming Teaching Technique significantly affects the students achievement in writing descriptive text at of Marturia Course Muara.

CONCLUSION AND SUGGESTION

Conclusion

From the analysis of the data, researcher found out that T-count was higher than T-table ($2,58 > 1,672$) at the level of significant 0.05 with $df = (N_e - 1) + (N_c - 1) = (30 - 1) + (30 - 1) = 29 + 29 = 58$. It could be seen from the result of the student's score in writing descriptive text by using Brainstorming Teaching Technique which was higher than the result of the student's score in writing descriptive text without using Brainstorming Teaching Technique. The students who were taught by using Brainstorming Teaching Technique achieved better progress than those students who were taught without using Brainstorming Teaching Technique.

It means that null hypotheses (H_0) is rejected and alternative hypotheses (H_a) is accepted. It can be interpreted that Brainstorming Teaching Technique significantly affects the students achievement in writing descriptive text at Marturia Course Muara.

Suggestion

Based on this research finding, researcher suggests English teacher to use Brainstorming Teaching Technique in teaching writing especially the descriptive text. In the connection with this the English teacher should give the topic which is related to the students' experience so that the students can easily build up their ideas in writing the descriptions of the object in such vivid detail.

The researcher of this study suggests the future researchers who have the same research interest to search the effect of Brainstorming Teaching Technique on teaching other language skills or other kinds of texts.

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