**THE EFFECT OF USING MIND MAPPING TOWARD STUDENTS’ WRITING ABILITY: An Experimental Study at Eight Grade Students of SMPN 17 Mataram**

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 The purpose of this study was to find out the effect of using mind mapping technique in teaching writing. This research used an experimental single group design. The population of this research was VIII B class which consisted of 20 students. The students were chosen by using purposive sampling. In collecting the data, I used pre test, treatments, post test and questionnaire. The finding showed that t-test value was significant than t-table, 6.24 > 2093 at significant level of .05 and 6.24 > 2861 at significant level of .01 in df = 19. It indicated that null hypothesis (Ho), that is “The use of mind mapping is not effective in improving students writing ability” was rejected. While the alternative hypothesis (Ha) that “The use of mind mapping is effective in improving student writing ability” was accepted. It means that mind mapping technique was effective and a good technique applied in learning English writing at eight B of SMPN 17 Mataram academic year 2013/2014.

 Tujuan dari penelitian ini adalah untuk mengetahui pengaruh penggunaan teknik Mind Mapping dalam pengajaran menulis. Penelitian ini menggunakan desain kelompok eksperimen tunggal. Populasi dalam penelitian ini adalah kelas VIII B yang terdiri dari 20 siswa. Para siswa dipilih dengan menggunakan metode purposive sampling. Dalam pengumpulan data, saya menggunakan pre test, pelatihan, post test dan angket. Temuan dalam penelitian ini menunjukkan bahwa nilai t-test lebih signifikan dari t-tabel, 6.24> 2.093 pada tingkat signifikan 0,05 dan 6,24> 2.861 pada tingkat signifikan 01 di df = 19. Hal ini menunjukkan bahwa hipotesis nol (Ho), yaitu "Penggunaan teknik Mind Mapping tidak efektif dalam meningkatkan kemampuan siswa menulis" ditolak. Sedangkan hipotesis alternatif (Ha) bahwa "Penggunaan teknik Mind Mapping efektif dalam meningkatkan kemampuan menulis siswa" diterima. Ini berarti bahwa teknik Mind Mapping efektif dan merupakan teknik yang baik untuk diterapkan dalam pembelajaran menulis bahasa Inggris di delapan B SMPN 17 Mataram tahun akademik 2013/2014.

**Keyword:** *Effect, Mind Mapping, Technique, Writing*

 English is an international language in the world. Studying English as a foreign language is gradually getting more important. In Indonesia, English has been taught in every level of education, from kindergarten up to university level.

 One of the aims of teaching English is developing the ability to communicate. The ability involves four skills: listening, speaking, reading and writing. I mainly focus on writing skill because writing is considered as the most difficult and complicated language skill to be learned**.** In fact,most students face difficulties in writing, not only students in junior high schools, but also students at colleges and Universities. Realizing the difficulties of students in writing and in order to increase students’ writing skill, the teachers should try to find an alternative method in teaching and learning process.

 Based on the situation above, I am interested in using mind mapping in teaching writing especially in optimizing student’s ability in recount text. I am interested in finding out how far the use of mind mapping can optimally help students in writing recount text. To conduct this study, I try to use a tree diagram of mind mapping to help students to combine their words into a good recount text. They are expected to be able to retell their story chronologically through the tree diagram.

 Harmer (2004),”writing should be done with understanding from the past time in order to inform and express what had happened, it should be well organized in order to be understandable for the reader”. Based on the statement above, I interpret that to achieve a good writing, the writer should pay attention to the writing rules such as grammar, the use of appropriate words and the development of the ideas. A good writing also should be well structured and written chronologically.

Then, we should also consider the writing process itself. Hammer (2004) suggested that writing process has four main elements.

1. Planning

 Before the writer start to write or type, they try and decide what they are going to write.

1. Drafting

We can refer to the first version of a piece of drafting as a draft. The first ‘go’ at a text is often done on the assumption that it will be amended later.

1. Editing (reflecting and revising)

Once writers have produced a draft, they usually read through what they have written to see where it works and where it does not,

1. Final version

 Once writers have edited their draft, making the change they consider to be necessary, they produce their final version.

 Braine and May defined four common purposes in writing, there are*; writing to inform, writing to explain, writing to persuade, and writing to amuse others*. First, the purpose of *writing to inform* is to educate the readers about a topic of which we have some knowledge. Writing that provides interesting details and facts to hold an audience’s attention. It means that writers share interest knowledge to the readers. Second, *writing to explain* is to describe the topic which is not clearly to be more understandable, by using examples or other facts. In other words, a writer takes what is unclear and makes it clear. Then, *writing to persuade* is more demanding and more ambitious than many other types of writing. It means that writers convince the readers to accept the ideas. The last, *writing to amuse others* means someone who uses language and established forms well to express his or her point of view. It is writing to entertain and give the reader something to enjoy.

**RESEARCH METHOD**

This research is experimental study. I would like to identify whether the use of mind mapping improve students writing ability. In collecting data, I used single group design to increase the validity of this research. First, I conducted a pre-test to see the students writing ability before using the media. After that, the students were treated by using mind mapping in teaching writing, and after giving treatments to the students, I gave a post-test. After the data had been obtained, the test results were compared.

The population of study was eight grade students of SMPN 17 Mataram, which was located at Jl. Lingkar Selatan, Sekarbela Mataram academic year 2013/2014. The eight grade students consist of 4 classes, there were 20-24 students in each class, and the total number of the students was 88.

 The sample of this study were the students of grade B, I took this class because I had conducted my teaching practice in this class before. Thus, I knew the students difficulty in learning English. As I observed, firstly, I found that the students had difficulty in arranging a paragraph, especially in how to start and end the story. Second, I found that the students had a limited in vocabulary. Third, the students had low motivation in studying English. In this research I used purposive sampling technique

In collecting the data, I used the following steps:

1 Pre-test

In this step, the data were gathered by giving the students a pre-test, which was aimed at determining the students current ability of writing recount text without the aid of mind mapping. The students were assigned to write their experience in less than 150 words of recount text without the help of tree diagram of mind mapping. The test was conducted by the help of classroom teacher.

2Treatment

Having given the students pre-test, I gave them treatment. First, the students were given explanation of recount text in general and the sample of text as the guidelines for writing recount text. Second, I explained about recount text then I told them about tree diagram of mind mapping, then gave them the example how to use mind mapping in writing recount text. After the students understood about the media and how to use it, I began to ask them to use mind mapping in writing recount text.

3Post-test

After giving treatment, I gave a post-test. The post-test was aimed to know the improvement of student ability in writing recount text after being given some treatment. The test was similar to the pre-test. The test was about writing recount text with the help of mind mapping. The pre-test and post-test scores were calculated in order to find out the mean and standard deviation of the two tests.

4. Questionnaire

Questionnaire was given to the participants. The questionnaire covered some aspects of recount text that led us to know whether the use of mind mapping is effective in improving student’s writing recount text.

 Methods of Data Analysis

1. Inserting the students score into table of data
2. Finding the students’ mean score

$$M=\frac{Σx1}{N}$$

$$M=\frac{Σx2}{N}$$

X1 = pre-test

X2= Post-test

N= Number of sample

$Σ$= Sum of

1. Computation of t-test

$$t= \frac{Md}{\sqrt{\frac{Σd^{2}x}{N(N-1)}}}$$

Md : The mean deviation score of the pre-test and post test

$Σd^{2}x$ : sum of square deviation

N : Number of sample

1. Consultation of t-table

Df = N-1

Df = degree of freedom

If t-test ≥ t-table at confidence level of 05(95%) and .01 (99%)

(Ha) of this study is the use of mind mapping is effective in improving students writing ability is accepted

If t-test ≤ t-table at confidence level of .05 (95%) and .01(99%)

(Ho) is the use of mind mapping is not effective in improving students writing ability is accepted.

**FINDINGS AND DISCUSSIONS**

In this particular part of writing, I would like to present the two major things namely finding and discussion. This part of the thesis also explains how I analyzed the data obtained from the pre-test and post-test score.

**Findings**

**Process of collecting Data**

This research was conducted at SMPN 17 Mataram, involving the students of class B at eight grade academic year 2013-2014. In gathering the data, I spent 3 weeks to do all the process of data collection. It was conducted from 17th October until 8th to November 2013. The process included observation, pre-test, treatments, post-test and delivering questionnaire.

**Students individual scores on pre-test and post test**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Students’ Code** | **Pre-Test**  | **X1** | **X2** | **Post-Test** |
| 1 | A | 30 | 30 | 40 | 45 |
| 2 | B | 40 | 40 | 65 | 65 |
| 3 | C | 35 | 35 | 40 | 55 |
| 4 | D | 45 | 50 | 50 | 55 |
| 5 | E | 35 | 40 | 55 | 55 |
| 6 | F | 50 | 50 | 75 | 75 |
| 7 | G | 45 | 55 | 65 | 75 |
| 8 | H | 30 | 30 | 35 | 40 |
| 9 | I | 30 | 40 | 55 | 55 |
| 10 | J | 30 | 40 | 65 | 65 |
| 11 | K | 30 | 35 | 35 | 55 |
| 12 | L | 30 | 35 | 35 | 55 |
| 13 | M | 30 | 30 | 60 | 65 |
| 14 | N | 45 | 55 | 65 | 65 |
| 15 | O | 30 | 35 | 35 | 45 |
| 16 | P | 45 | 50 | 65 | 75 |
| 17 | Q | 45 | 45 | 45 | 55 |
| 18 | R | 30 | 35 | 55 | 65 |
| 19 | S | 40 | 40 | 55 | 75 |
| 20 | T | 35 | 30 | 55 | 65 |
| **Sum** | 730 | 800 | 1050 | 1205 |
| **M** | 36.5 | 40 | 52.5 | 60.25 |

X1 = Treatment 1 without mind mapping

X2 = Treatment 2 with mind mapping

M = Mean Score

 From the tabulation above, it can be seen that the highest score of the students’ in pre test is 45 obtained by D,G,N,P,Q and the lowest score is 30 obtained by A,H,I,J,K,L,M,O,R. Meanwhile the highest score gained in X1 is 55 obtained by G and the lowest score is 30 obtained by A,H,M,T, then in X2 the score is increasing.

**Computation of deviation and square deviation score**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Students’ Code** | **Pre-Test** | **Post-Test** | **D** | **D2** |
| 1 | A | 30 | 45 | 15 | 225 |
| 2 | B | 40 | 65 | 25 | 625 |
| 3 | C | 35 | 55 | 20 | 400 |
| 4 | D | 45 | 55 | 10 | 100 |
| 5 | E | 35 | 55 | 20 | 400 |
| 6 | F | 50 | 75 | 25 | 625 |
| 7 | G | 45 | 75 | 30 | 900 |
| 8 | H | 30 | 40 | 10 | 100 |
| 9 | I | 30 | 55 | 25 | 625 |
| 10 | J | 30 | 65 | 35 | 1225 |
| 11 | K | 30 | 55 | 25 | 625 |
| 12 | L | 30 | 55 | 25 | 625 |
| 13 | M | 30 | 65 | 35 | 1225 |
| 14 | N | 45 | 65 | 20 | 400 |
| 15 | O | 30 | 45 | 15 | 225 |
| 16 | P | 45 | 75 | 35 | 1225 |
| 17 | Q | 45 | 55 | 10 | 100 |
| 18 | R | 30 | 65 | 35 | 1225 |
| 19 | S | 40 | 75 | 35 | 1225 |
| 20 | T | 35 | 65 | 30 | 900 |
| **Sum** | 730 | 1205 | 480 | 13000 |
| **M** | 36,5 | 60,25 | 24 | 650 |

Note:

D : Students Individual Deviation

D2 : The Square of students’ individual deviation

M : Mean Score

The Questionnaire Result

After I treated the students using mind mapping technique, then I gave them a table of questionnaire. It was aimed to find out the students’ opinion after using mind mapping technique.

 **Percentage students’ perception in learning writing using mind mapping.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Questions/Pertanyaan** | **SS** | **S** | **KS** | **TS** | **Total** |
| 1 | *I like English lesson*Saya menyukai pelajaran bahasa inggris | **11****55%** | **9****45%** |  |  | **100%** |
| 2 | *I think learning English is difficult* Menurut saya pelajaran Bahasa Inggris itu sulit |  | **2****10%** | **12****60%** | **6****30%** | **100%** |
| 3 | It is difficult for me to write recount text.Saya memiliki kesulitan dalam menulis texk recount |  | **4****20%** | **15****75%** | **1****5%** | **100%** |
| 4 | *This is my first time I heard Mind Mapping Technique*Baru kali ini saya diperkenalkan dengan tehnik Mind Mapping | **6****30%** | **12****60%** | **2****10%** |  | **100%** |
| 5 | *Mind mapping greatly helped me in writing text recount*Media mind mapping sangat membantu saya dalam menulis text recount | **7****35%** | **13****65%** |  |  | **100%** |
| 6 | *Mind mapping makes it easy for me in starting and ending the story*Media mind mapping memudahkan saya dalam memulai dan mengakhiri cerita | **4****20%** | **15****75%** | **1****5%** |  | **100%** |
| 7 | *Mind mapping help me easier built the chronology of events in a story* Media mind mapping membantu saya lebih mudah merangakai kronologi kejadian dalam cerita | **6****30%** | **13****65%** | **1****5%** |  | **100%** |
| 8 | *Mind mapping facilitates me to develop the outline of the story* Media mind mapping memudahkan saya dalam mengembangkan kerangka karangan dalam cerita | **4****20%** | **15****75%** | **1****5%** |  | **100%** |
| 9 | *I think, learning using Mind Mapping is amusement*Menurut saya, belajar mengunakan tehnik Mind Mapping sangat menyenangkan | **10****50%** | **10****50%** |  |  | **100%** |

 Based on the questionnaire above, it can be seen that in the first statement there are 55% students extremely agree and 45% agree. It means that most students in this class enjoy learning English language. The second statement, “I think learning English is difficult” I found that 10% of the total population agreed, 60% are less agreed then 30% disagreed. Then in the third statement, 20% agreed, 75% less agreed and 5% disagree. In fourth statement, 30% extremely agreed, 60% agreed and 10% less agreed. In fifth statement, ”mind mapping greatly helped me in writing recount text”, 35% extremely agreed, 65% agreed. It means that mind mapping has great impact in learning recount text, especially in writing skill. In sixth statement, 20% students extremely agreed, 75% agreed and 5% less agreed. In seventh statement, 30% extremely agreed, 63% agreed, and 5% less agreed. Statement number eight, 20% extremely agreed, 75% agreed, 5% less agreed. And the last statement, “I think learning using mind mapping is amusement”. 50% extremely agreed and 50% agreed.

Data Analysis

After distributing the pre-test and post-test score of the students’, it was important to find out the result of the t-test in order to know the level of significance. Several formulas were applied before computing the t-test value:

1. Finding the students’ mean score
2. Computation of t-test

The students’ mean score

To find out the mean score of each test, I applied the following formulas:

$$M=\frac{Σx1}{N}$$

$$M=\frac{Σx2}{N}$$

X1 = pre-test

X2= Post-test

1. Mean of the pre-test

$$M=\frac{Σx1}{N}$$

$$M= \frac{730}{20}$$

$$M=36,5$$

1. Mean of the post-test

$$M=\frac{Σx2}{N}$$

$$M=\frac{800}{20}$$

$$M=40$$

Based on the result above, the mean score of pre-test is 36.5 while, the mean score of the post-test is 60.25. It means that there were differences in the students’ writing ability before using mind mapping technique and after using mind mapping.

Calculating the t-test

The purpose of the t-test was to find out the significance level of the test result and to prove the hypothesis. It used the following formula:

$$t= \frac{Md}{\sqrt{\frac{Σd^{2}x}{N(N-1)}}}$$

Where

Md : The mean deviation score of the pre-test and post test

$Σd^{2}x$ : Sum of square deviation

N : Number of sample

Before calculating the t-test, the mean from different result between the pre-test and post-test (Md) and the sum of square deviation were needed.

$$Md= \frac{Σd}{N}$$

$$Md=\frac{730}{20}$$

$$Md=36.5$$

$$t= \frac{Md}{\sqrt{\frac{Σx^{2}d}{N(N-1)}}}$$

$$t= \frac{36.5}{\sqrt{\frac{13000}{20(20-1)}}}$$

$$t=\frac{36.5}{\sqrt{\frac{13000}{20(19)}}}$$

$$t= \frac{36.5}{\sqrt{\frac{13000}{380}}}$$

$$t= \frac{36.5}{\sqrt{34.21}}$$

$$t= \frac{36.5}{5.848}$$

$$t=6.24$$

 I compared the value of t-test and t-table to identify the significance of mind mapping technique in learning English vocabulary. The degree of freedom in this research can be found by applying the formula:

**Table 4.4 Summary of t-test calculation**

|  |  |
| --- | --- |
| **t-test** | **t-table** |
| **Df (20-1)** | **0.01 (99%)** | **0.05 (95%)** |
| **6.24** | **19** | **2861** | **2093** |

**Discussion**

Based on explanation in chapter 1, the purpose of this study was to discover the effect of using mind mapping technique towards students’ writing ability. After analyzing the data, I could conclude that the effects of using mind mapping technique are that the students’ writing ability increased significantly. It can be seen from the pre-test , the students could reach 36.5 and after the treatments using mind mapping technique, students were able to increase the mean score up to 60.25 in post-test. The increasing score from pre-test to post-test was 23.75. The treatments also showed that in the first treatment, the students only gained 40 and the second treatment using mind mapping the students’ mean score became 52.5. The t-test value (6.24) was significantly higher than t-table at the significance level of 0.05 (95%) with (2.093) and at the significance level of 0.01 (99%) with (2.861) in degree of freedom (df) 19.

**CONCLUSION AND SUGESSTION**

 This last chapter presents the conclusion drawn from the research. It also presents suggestions for teachers, students, and future researchers as well.

**Conclusions**

 As stated in the research question in the previous chapter, this study aims to find out whether the use of mind mapping effective to improve students writing ability at eight grade students of SMPN 17 Mataram?

 Based on the research findings and the discussion in the previous chapter, the researcher proposes some conclusions as follows.

1. Most students who were taught using mind mapping technique gained better achievement. The mean value of the posttest of the experimental class after the treatment given was 52.2.

2. Most students who were not taught using mind mapping technique got lower achievement. The mean value of the posttest of the control class after the treatment given was 40.

3. The conclusion of the study is based on the following alternate hypothesis.

 The alternative hypothesis (Ha) of this study is “The use of mind mapping is effective in improving student writing ability” is accepted. It is supported by the result of *t-test* of the post-test scores between the control and experimental class.

**Suggestions**

 With regard to the limit of this study, the researcher proposes the following suggestions.

1. For Teachers

1. The teacher should be active in teaching and learning process
2. The teacher should use the interesting media in teaching English, especially in teaching writing, because writing is one of the most difficult skills in English.

2. For Students

 Through the mind mapping technique in teaching writing, it is expected that students are able to write grammatically, accurately and orderly. In addition, it is also expected that they will be highly motivated to engage in each step of writing process.. At last the use of mind mapping technique is expected to help students to improve their writing skill.

3. For Future Researchers

 Writing is a really complex activity. It is expected that the future researchers can develop this study with consideration of the different samples and sampling technique.

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