

## THE IMPLEMENTATION OF MIND MAPPING TO INCREASE STUDENTS' READING COMPREHENSION ACHIEVEMENT

Livindita, Sudirman, Ramlan Ginting Suka

[Livi.dita@gmail.com](mailto:Livi.dita@gmail.com)

English Department, Lampung University

Penelitian ini bertujuan untuk menemukan adanya perbedaan statistik antara kemampuan membaca siswa sebelum dan setelah penggunaan teknik *mind mapping*. Desain yang digunakan adalah satu kelompok *pre test* dan *post test*. Hasil penelitian menunjukkan bahwa terdapat peningkatan yang signifikan pada kemampuan membaca siswa yang berhubungan dengan menemukan ide pokok, spesifik informasi, referensi, kesimpulan dan perbendaharaan kata dengan tingkat signifikan  $0.00 < 0.05$ . Mengusulkan bahwa teknik *mind mapping* adalah efektif untuk meningkatkan kemampuan membaca siswa.

This research is aimed to find out whether there was a statistically significant increase of the students' reading achievement after the students were taught through the *mind mapping* technique. The data were obtained from the pre-test and the post-test. The result showed that there was a statistically significant increase of students' reading comprehension in terms of finding main idea, specific information, references, inferences, and vocabulary with the significant level  $0.00 < 0.05$ . This suggests that the *mind mapping* technique is effective to increase students' reading comprehension achievement.

**Keywords:** *mind mapping*, reading, reading comprehension

## INTRODUCTION

Reading skill is one important aspect in learning a language, especially in learning English as a second or foreign language. The main goal of teaching English at schools is to enable the students to have a good skill in communicating either in written or spoken form. When the students learn English, they need to know the four skills in English i.e. listening, speaking, reading, and writing. Those skills are very important in learning English.

Reading comprehension is a process when readers learn something or get information from what they read. In reading process, readers utilize vision, perception, comprehension and reaction Brown (1982). It means that reading comprehension can make readers dominantly use brain when they read an argumentative or scientific writing. According to Tankersley (2005), reading comprehension can be defined as an active thinking process in which a reader simultaneously extracts and constructing meaning through interaction and involvement with written language. From the explanation above, Tankersley (2005:108) 'explained that comprehension is a not a product'. Readers filter understanding through the lens of their knowledge and experience.

Now, in the KTSP curriculum for junior high school reading is the most popular question in the examination. The goal of the School Based Curriculum is that the students are expected to increase the knowledge which is mostly written in textbooks. It means that the students should interpret the meaning of the text when they are reading. According to Hornby (1972) a comprehension is the power of understanding fully. It means that comprehension determines the principle of reading process, and by reading comprehension we can understand the purpose and the main point of the text. In the process, the students will perform some tasks given, when they can get the main idea of the text, get knowledge of the text and that is part of learning.

In reading comprehension there are five aspects that the students should understand to comprehend the text well. According to Suparman (2012), there are several aspects of reading comprehension skills that should be mastered by reader to comprehend the text determining finding main idea, specific information, reference, inference, and vocabulary. Most of teachers in the school just ask the students to read the passage or the text and answer the multiple choices questions related to the text like the main idea without telling them about the more specific information of the text. It makes their reading comprehension skill cannot be increased. English teaching should be delivered in interesting technique that can guide the students to understand the text and to predict the meaning. So, they can increase their reading comprehension achievement.

The teachers should use a suitable method and technique to increase students' achievement specially in reading comprehension. There are many methods that can be used for teaching reading related to the subject. One of the techniques is mind mapping technique. According to Buzan (2005), mind mapping is a very powerful tool for brainstorming, creative thinking, problem solving, organizing of ideas and of course, note taking. According to Swan (2010), a mind mapping changes the paradigm of teaching and learning process and converts monotone

information into a colorful, memorable and highly organized diagram that works in line with someone's brain. It means that mind mapping encourage creative problem solving, as they hold information in a format that the students' mind finds easy to remember and quick to review.

The previous study have done by Indrayani (2014) showed that that mind mapping technique is effective technique to improve students' reading comprehension at second grade of senior high school. Therefore the researcher will conduct mind mapping technique in the second grade students of SMP Muhammadiyah 3 Bandar Lampung in order to find out whether there is significant increase on the students' reading comprehension achievement and find out the aspect of reading skill has highest increase after taught through mind mapping technique.

## **METHOD**

This research was a quantitative research. The design used for conducting the research was one group pretest-posttest design. The sample of this research was students of class VIII B SMP Muhammadiyah 3 in the second grade of semester 2015/2016 academic year. In determining the writer used simple random probability sampling. The materials for the students were selected based on School-based Curriculum (KTSP) for junior high school. The result of pre test represented the students' reading comprehension achievement before the treatment and the result of post test represent the student's reading comprehension achievement after the treatment. This research used the result of the try-out test to measure the validity, reliability, level of difficulties, and discrimination power of the tests. The research instrument was objective reading test in form of multiple choice items.

The total items of the try-out test were 40, conducted in 90 minutes. Out of the 40 items of the tryout were reduced to become 30 items were used the pre test and post test. After the sample of the research was trained, the post test was administered to them. The data were analyzed by using Repeated Measure T-Test of SPSS (Statistical Package for Social Science) version 16.0. To measure the increase from each aspects of reading covering determining main idea, finding supporting details, inference, reference, and vocabulary, the researcher selected the aspects in all items of students' pre test and post test.

## **RESULT**

The result from the calculation by using *Repeated Measure T-Test* (SPSS 16.0) showed that the mean score of pre-test result was 59.18 while in the post-test was 69.46 in which the gain was 10.28 points. Therefore, it could be stated that  $H_0$  was rejected and  $H_1$  was accepted. The sig 2-tailed was 0.000 ( $<0.05$ ) which was lower than 0.05. It could be seen from Table 1 and Table 2.

**Table 1. The Mean Scores of Pre-test and Post-test Paired Samples Statistics**

|                 | Mean    | N  | Std. Deviation | Std. Error Mean |
|-----------------|---------|----|----------------|-----------------|
| Pair 1 Posttest | 69.4688 | 32 | 7.29995        | 1.29046         |
| Pretest         | 59.1875 | 32 | 7.60491        | 1.34437         |

**Table 2. Result of Students' Reading Achievement**

|                            | Paired Differences |                |                 |   |          | t      | df | Sig. (2-tailed) |
|----------------------------|--------------------|----------------|-----------------|---|----------|--------|----|-----------------|
|                            | Mean               | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |          |        |    |                 |
|                            |                    |                |                 | Lower                                     | Upper    |        |    |                 |
| Pair 1 Posttest<br>Pretest | 1.02812E1          | 3.42886        | .60614          | 9.04502                                   | 11.51748 | 16.962 | 31 | .000            |

In addition, there were five aspects of reading comprehension measured in this research. They were main idea, specific information, references, interferences, and vocabulary. The comparison of the students' result of reading comprehension' aspects could be seen on the table below:

**Table 3. Comparison of Aspects of Reading Comprehension Means**

| No | Reading Comprehension Aspects | Pretest | Posttest | Gain  |
|----|-------------------------------|---------|----------|-------|
| 1. | Main Idea                     | 9.51%   | 12.19%   | 2.68% |
| 2. | Finding Information           | 4.82%   | 6.46%    | 1.64% |
| 3. | References                    | 12.51%  | 15.48%   | 2.97% |
| 4. | Inferences                    | 4.07%   | 4.25%    | 0.18% |
| 5. | Vocabulary                    | 7.93%   | 9.20%    | 1.27% |

Based on table 3 above, mind mapping as the technique used for teaching reading that can increase the students' reading comprehension achievement in all aspects of reading comprehension, such as determining finding main idea 2.68%, specific information 1.64%, references 2.97%, inferences 0.18%, and vocabulary 1.27%. The highest increase of reading aspect is references and the lowest one is interferences.

## DISCUSSION

The post test was administered after the treatment. It was conducted to see the significant difference of reading comprehension achievement in one class investigated. The result was that there was significant difference on the students' reading comprehension achievement after taught through mind mapping technique. The post test result was compared with the result of pre test and it was done in order to answer the first and the second research questions.

In the data collecting, the pre test mean result of the students' score is 59.18 and 69.46 for the post test. The difference between mean of students' score in pre test and post test is 10.26. It also showed that the sig (2 tailed) was 0.000 and it is lower than sig  $\alpha < 0.05$ . Therefore, it could be stated that there was a significant difference of students' reading comprehension after the implementation of mind mapping technique in teaching reading. In addition, the result of hypothesis testing is the significant difference between the result of pre test and post test showed that there was a significant difference. It means that the hypothesis was accepted and the first research question was answered.

According to Swan (2010), mind mapping is an important technique that improve the way to record information, enhances creativity, imagination, and also motivation, especially in drawing and coloring image to represent the information in mind mapping. Teaching and learning reading through mind mapping technique can create an interesting and creative teaching learning and students have better comprehension after reading the text.

Mind mapping as a technique increased the students' reading comprehension in all aspects of reading comprehension, such as determining finding main idea 2.68%, specific information 1.64%, references 2.97%, inferences 0.18%, and vocabulary 1.27%. It could be concluded that mind mapping technique could increase the students' reading comprehension in all aspects of reading comprehension. The highest increase of reading aspect is references, it is because reference is a word or phrases that can make students easier to get references from the preview sentence without read all of the text. The lowest one is inferences, it is because students get difficult to find wrong or correct statement of the text.

It was nice mind mapping that helped the students to understand the content of descriptive text easier than before and help them to comprehend the text very well. In concluding the research gave four meetings taught mind mapping technique in teaching reading descriptive text. The training was given to the experimental class. At the beginning of the training the students were confused seeing mind mapping. Then, all of the students agreed to see mind mapping based on the text given. The teacher tried to activate the students' background knowledge about the field discussed that was particular time learning strategy.

In summary, teaching reading descriptive text through mind mapping technique gave a significant difference to the students' reading achievement. Reading achievement of the students' was higher after the treatments than reading achievement before taught through mind mapping technique. Mind mapping technique also helped the students to comprehend the text very well. Besides,

mind mapping technique also could increase the five aspects of reading comprehension.

## CONCLUSION

In line with the results of the data analysis and discussion, the writer made two conclusions. The first conclusion, after the research had been conducted, it is concluded that mind mapping is a good technique for reading comprehension because it can help the students to comprehend the text well. The increase can be seen from the mean and also the gain in pre test and post test. In pre test, the mean of the students score is 59.18 while in the post-test is 69.46 in which the gain is 10.28 points. Secondly, all of the aspects in reading comprehension were increased and reference aspect increased the most because the students are more encouraged to work related to the supporting the references. They got it because references are related to the mind mapping technique. By using mind mapping technique the students can conclude the text very well.

## SUGGESTIONS

Referring to the conclusion above, the researcher provides some suggestions. The first suggestion is for the teacher. English teachers are recommended to apply mind mapping technique as alternative technique in teaching reading through descriptive text because it can help the students in comprehending the text easier. In the implementation of mind mapping technique, the teacher should control the students' activities and consider the time allocation when they implement the mind mapping technique, because it may affect the efficiency of the strategy itself. The second suggestion is for further researcher. This study was conducted in the Junior High School level. Therefore, the further research can try to implement mind mapping technique in different levels. In this research, the researcher applies mind mapping technique in teaching reading descriptive text at the second grade of Junior High School. Other researchers can conduct with other kinds of text, i.e. exposition, recount, or report text.

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