

THE EFFECT OF USING MIND MAPPING ON READING COMPREHENSION OF THE FIRST YEAR STUDENTS OF SMAN PLUS RIAU

Rahmi Vilia Gustin, Dra. Syofia Delfi, M.A . Erni, S.Pd., M. Hum.

Email: rahmivilia@yahoo.com, syofia_delfi@yahoo.com, erni.rosda@yahoo.co.id

Contact person: 082381802120

*English Study Program
Teacher Training and Education Faculty
Universitas Riau*

Abstract: *This pre-experimental research was aimed at finding out whether there is a significant effect of using Mind Mapping on reading comprehension of the first year students of SMAN PLUS RIAU. The research model was one group pretest-posttest design. The population were the first year students in academic year of 2016/2017. The sample was 24 students out of the population, chosen by using cluster sampling. The data were collected by administering a reading comprehension test concerning narrative texts. The collected data were analyzed by using SPSS version 23.0. The finding of the reseacr h showed that the mean score of post-test was higher than that of pre-test ($80.67 > 70.81$). The value of t-test was higher than t-table ($19.49 > 2.06$) at 5% of the significant level. Therefore, alternative hyphothesis (H_a) was accepted. It means that mind mapping was effective for teaching reading comprehension especially on narrative texts. The implication of the finding was that the use of mind mapping in increasing the level of reading comprehension.*

Keywords: *Mind Mapping, Reading Comprehension, Narrative Texts*

PENGARUH DARI PEMETAAN PEMIKIRAN TERHADAP PEMAHAMAN BACAAN PADA SISWA TAHUN PERTAMA SMAN PLUS RIAU

Rahmi Vilia Gustin¹. Dra. Syofia Delfi, M.A². Erni, S.Pd., M. Hum³.

Email: rahmivilia@yahoo.com, syofia_delfi@yahoo.com, erni.rosda@yahoo.co.id

Contact person: 082381802120

*Program Studi Bahasa Inggris
Jurusan Bahasa dan Seni
Fakultas Pelatihan Guru dan Pendidikan
Universitas Riau*

Abstrak: Penelitian pre-eksperimental ini bertujuan untuk mengetahui apakah ada efek signifikan dari penggunaan strategi Mind Mapping pada pemahaman membaca pada siswa tahun pertama SMAN PLUS RIAU. Model penelitian adalah desain pretest-posttest satu kelompok. Populasi adalah siswa tahun pertama akademik 2016/2017. Ukuran sampel adalah 24 siswa dari populasi, dipilih dengan teknik cluster sampling. Data yang dikumpulkan dengan memberikan tes pemahaman bacaan teks naratif dalam pre-test dan post-test. Data yang terkumpul dianalisis dengan menggunakan SPSS versi 23.0. Temuan penelitian menunjukkan bahwa nilai rata-rata post-test lebih tinggi dari pada pre-test ($80.67 > 70.81$). Nilai t-test lebih tinggi dari t-tabel ($19.04 > 2.06$) pada 5% dari tingkat signifikansi. Oleh karena itu hipotesis alternatif (H_a) diterima. Artinya strategi pemetaan pikiran efektif untuk mengajarkan pemahaman bacaan dalam teks naratif. Implikasi dari temuan tersebut adalah bahwa penggunaan strategi pemetaan pikiran dapat meningkatkan tingkat pemahaman bacaan.

Kata Kunci: Pemetaan Pemikiran, Pemahaman Membaca, Teks Narasi.

INTRODUCTION

Reading is one of English language skills that should be learned by students when learning English. Reading is one way for the reader to receive information from the writer in the form of text. Reading can also increase the reader's vocabulary and enhance the reader's knowledge. Reading a text generally told about the aim to understand the writer's ideas. It was not simply a process of getting the meaning of the printed word. Linse (2005) states that reading is a set of skills that involves making sense and deriving meaning from the printed words. It means reading is an activity to read the printed words in order to understand the content and get the information of text.

In addition, reading has many benefits that students get from reading process. Through reading, students not only get the new information but also know about new vocabulary, correct grammar, and correct punctuation. Hammer (1998) argues that reading texts provide opportunities to study language vocabulary, grammar, punctuation, and then the way we construct sentences, paragraphs and text. Therefore, students should be master the reading skills effectively in order to get information enlarge their knowledge, to improve their vocabulary, to get information, and to help them in speaking and writing progress. Reading also can develop their creativity, critical thinking and even writing skill. Besides, students may get a lot of information as much as possible from many sources. The more they read, the more information they get. In addition, reading can make the students smarter and creative. As stated Laddoo (2013) that reading forces the reader's brain cells to work on a regular basis as this will keep the reader sharper and smarter.

In this research, the writer focuses on comprehending narrative texts because narrative text is included in the syllabus for the first year students of Senior High. Furthermore, narrative text is such an enjoyable text for the students. Most narrative text tells about fantasy that may increase students' motivation in reading. Narrative text is also an important aspect for the students to learn as stated in the 2013 Curriculum and this text is included in the daily test, mid-test, semester test, and the National Examination. So it is important for the writer to conduct this research which is expected to help students understand about narrative texts so that they can answer the National Examination, which is mostly found in reading.

Based on the writer's observation and discussion with the English teacher at SMAN PLUS RIAU, the students still got some difficulties in comprehending the text for the first year students, such as; students were low ability to comprehend the reading text, the students were difficult to get the idea from reading narrative text. There is some factors that might cause the difficulties in comprehending the text for the first year students. The students are so lack of vocabulary so it is very difficult for them to clearly understand the information implied in the text, the students will feel bored when they find some difficult words while reading the text. As the result they could not catch the idea and the information in the text.

Considering the problems faced by the students in comprehending narrative text, the teachers should find an effective technique in teaching reading. The writer proposed to use mind mapping as the technique for teaching reading comprehension to improve student's reading comprehension. Mind mapping is an activity which made students easier to accept and remember visually about what they make. It means mind mapping is a creative technique which the students can remind the ideas and comprehend written

information. Moreover, this technique enables students to associate story through pattern, keyword or symbol so it makes them more critical thinking.

Regarding this finding, the writer in this study is interested in applying, whether Mind Mapping is able to gives effect to the students' achievement on the reading comprehension for the first year students on narrative text or not since the previous researches showed that mind mapping was an appropriate technique in teaching narrative text. The result of this research is expected to help the students in comprehend the narrative text.

From the description above, the writer proposed to do the study under the title: "The Effect of Using Mind Mapping on Reading Comprehension of the First Year Students of SMAN PLUS RIAU."

METHODOLOGY

This research was a pre – experimental research. This research was conducted by using, one group pre-test – post-test. It involved a single group that was pre-test, exposed treatment and post-test and one class was involved in this research. The researcher compared the scores in pre-test and post-test to see whether the treatment is effective or not on the students' reading comprehension in narrative texts.

Table 1. One group pre-test and post-test

Group	Pre-test	Treatment	Post-test
Experimental	O ₁	X	O ₂

(Gay, 2009)

According to Gay (2000), sampling is the process of selecting a number of individual for study in such a way that represents the larger group from which they were selected". Researcher used the cluster sampling to select the sample of research. A total of 24 students were selected as a sample for this study from class X MS 4. The population in this research was 101 students of the first year students of SMAN PLUS RIAU.

In doing the research, the writer administered two tests; pre-test and post-test. The data was used in this research was the students' score in reading comprehension. The instruments that used in this research were reading test in multiple choices form. Each text consisted of six items of multiple choices. Thus, there were 30 items in 5 narrative texts that included in the test. The duration time for doing the test was 60 minutes.

Before applying the treatment, the researcher administered a pre-test to find out the students' reading comprehension in narrative text. The students answered the questions of multiple choice tests in 60 minutes about narrative texts. Then, the writer applied the treatment in four meetings with different topic in every meeting. The writer introduced Mind Mapping and guided the students in making group in 4 or 5 members and did the worksheets about narrative texts by following the Mind Mapping technique.

After applying the treatments, the researcher administered a post-test to find out whether Mind Mapping technique is effective or not on the students' reading comprehension in narrative texts. The students answered the questions of multiple choice tests in 60 minutes about narrative texts.

Table 2. Classification of Students' Score

No.	Scores	Category
1.	81 – 100	Excellent
2.	61 – 80	Good
3.	41 – 60	Mediocre
4.	21 – 40	Poor
5.	0 – 20	Very poor

(Adapted from Harris, 1974)

In addition, the data were analyzed to answer the hypothesis by using t-test formula. The researcher found out the complete result in SPSS including the mean, standard error mean, standard deviation, degree of freedom and t-test. The comparison between t-test and t-table show $19.496 > 2.069$ means that t-test score is higher than t-table on significant level 5%, the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted.

RESULTS AND DISCUSSIONS

Results

The results of this research were presented by showing the result of t-test table in comparing the difference result of students' reading comprehension in the pre-test and the post-test.

Result of Pre-test

The pre-test was conducted at the beginning of the research to find out the students' reading comprehension before the treatment was applied. The result of pre-test was shown in the table 3;

Table 3. Students' Comprehension in Each Component of Reading Comprehension in the Pre-test

No	Components of reading	Percentage %
1	Main Idea	69.17
2	Factual Information	80.83
3	Vocabulary	57.5
4	Reference	77.5
5	Inference	60
6	Social Function	79.17

Table 3. shows that the easiest component of reading for the students in the pre-test is factual information. It can be seen on the table that the highest percentage is factual

information which is 80.83. The second easiest component for the students in the pre-test is social function which was 79.17 followed by reference which is 77.5. The fourth component is main idea 69.17 and the fifth component is inference 60. The last, the most difficult component is vocabulary which is 57.5.

Result of Post-test

After all steps had been undergone, the post-test was conducted in order to measure the students' reading comprehension after being taught by applying mind mapping. The result of post-test was shown in the table 4.5:

Table 4. Students' Comprehension in Each Component of Reading Comprehension in the Post-test

No	Components of reading	Percentage %
1	Main Idea	90.83
2	Factual Information	87.5
3	Vocabulary	65.83
4	Reference	86.67
5	Inference	69.17
6	Social Function	85.83

Table 4. presents that the average score in component of main idea is 90.83, factual information is 87.5, vocabulary is 65.83, reference is 86.67, inference is 69.17 and social function is 85.83. Based on the description of table 4.5, the lowest score of the components of reading comprehension is vocabulary and the highest one is main idea. The average score of the students' reading ability in the post-test is with the total score of 80.97. This shows that there is a gained score if compared the pre-test and the post-test scores. The gained score is 9.86.

Result of T-test

After conducting the post-test, the data were analyzed by using t-test formula to find out whether the hypothesis is accepted or not. The researcher found out the complete result in SPSS including the mean, the variance, standard deviation, standard error mean, and degree of freedom of the test that can be seen on the table 5.

Table 5. Paired Sample Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Posttest – Pretest	9.8333	2.47099	.50439	8.78993	10.8767	19.49	23	.000

$$\begin{aligned}
 t\text{-table} &= n-1 ; \alpha/2 \\
 &= 24-1 ; 0,05/2 \\
 &= 23 ; 0,025 \\
 &= 2.069
 \end{aligned}$$

The results of t-test is 19.49, meanwhile t-table is 2.06. It showed that the score of t-test was higher than t-table ($19.49 > 2.06$). Therefore, it is concluded that there is a significant difference between the pre-test and post-test. So that, the alternative hypothesis of this research is accepted and null hypothesis is rejected.

Discussion

Based on the finding of this research showed that *mind mapping* technique is applicable for teaching reading comprehension. The result shows that the post-test is better than the pre-test which indicated the improvement of students' reading comprehension in narrative text.

The result showed that the *mean* score of post-test was higher than the score of pre-test ($80.64 > 70.81$). It means that the students's score of post-test was better than the students's score of pre-test which indicated the improvement of students' reading comprehension. Then, the data analysis showed that t-test was higher than t-table ($19.496 > 2.069$). It can be concluded that mind mapping technique could improve the students' reading comprehension especially in narrative text.

Based on the results of pre-test and post-test, the results showed that the students' mean score in each components of reading comprehension was increased. The writer also found out that from the five components of reading comprehension as stated by King and Stanley (1989), the lowest score of aspect of reading comprehension in the pre-test and the post test were vocabulary with score (57.5%) and (65.83%). It happened because the students unfamiliar with the words so the students got difficulties in finding the meaning of the words. Meanwhile, the highest score in the pre-test and the post-test were factual information (80.83%) and main idea (90.83%). It happened because in the factual information, the answer has been clearly stated in the text that the students could point it out easily. In addition, the aspect that has significant increase in the post test was finding main idea. After applying Mind Mapping, the students were able to catch the ideas easily because the text was presented in a mind map clearly.

CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the result of the data analysis, it can be concluded that Mind Mapping technique gave significant effect on reading comprehension of the first year students of SMAN PLUS RIAU in narrative texts. The use of Mind Mapping technique made the students got easy to comprehend narrative texts and the students to be focused on the ideas. It can be seen from the students' score on post-test that was higher than pre-test. The means score for each component has increased. It can be said that after conducting the Mind Mapping, the first year students on reading comprehension of narrative text of SMAN PLUS RIAU has increased. Mind Mapping can give positive contribution and better outcomes to raise the students' comprehension on narrative text. The result also showed that the value of t-test (19.496) is higher than t-table (2.069) at the significance level 5%. It means that Alternative Hypothesis (H_a) is accepted and Null Hypothesis (H_o) is rejected. Hence, there is a an effect of using Mind Mapping on reading comprehension of the first year students of SMAN PLUS RIAU especially on narrative texts.

Recommendations

Based on the results of this study, the writer would like to give some recommendation as follows: First, the English teacher can apply *mind mapping* technique as one of the techniques in teaching reading especially narrative texts since it helps the students to be focused to find some ideas on reading comprehension. Second, the students are recommended to keep on reading and do more practice in order to get more knowledge, to get the better result and increase their vocabulary. Finally, the researcher who will investigate this study should pay attention to the weaknesses in this research so that the next research will be a better research.

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