

THE EFFECTIVENESS OF USING MIND MAPPING TECHNIQUE ON STUDENT ACHIEVEMENT OF READING NARRATIVE TEXT

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Abstract: Mind mapping is one of the techniques in teaching reading that the students make a map after they read a text. In Mind-mapping technique, The students read a text. After reading a text, the students must make a map about a text that they have read. This technique will make students understand and memorize the text easily. The result showed that The T_{count} was 8.549, whereas T_{table} with significant level 5% was 2.021. So, T_{count} was bigger than T_{table} . It means that H_a which states that there is significant different in using mind-mapping technique to teach reading to the second grade at MTs N Bandung is accepted. Whereas, H_o which states that there is no significant different of using mind-mapping technique to teach reading to the second grade at Mts N Bandung is rejected.

Keywords: Mind-mapping Technique, Reading Narrative Text

English has been becoming number one topic that is being talked by scientist. It is because, almost every person in this earth needs to study English. Learning English is very important. English is essential for education advancement or career development and for interaction with people in other countries. Besides, English is also used to develop science, technology and culture. Based on the national education system, there are four skills which must be acquired by students in learning English, they are reading, listening, speaking and writing. Furthermore, English also has three components that are vocabulary, grammar and pronunciation. Among the four basic skills, reading is one of the most important skills in learning language because the success of their learning depends on the greater part of their ability to read. Reading is construction of meaning from a printed or written message. The construction of meaning involves the reader connecting information from the written message with previous knowledge to arrive at meaning at an understanding. Besides, the issue on the importance of study within context, then support the importance of improving students' reading skill. Harmer (2010: 102), also states that by reading, it can be used to be a good model in writing for students.

Mind mapping is an important technique that improves the way to record information, support and enhances students' creative problem solving. It can be said that mind mapping is one of the essential or important technique to improve student's creativity to solve problem, especially to conduct their reading comprehension (Buzan, 2005:1). On a concept map, concept is represented by

boxes or circles which are joined with lines or arrows. The words are written on or near the line, which link the concept. The linking are particularly important because they provide an indication of what they understand and the depth of that understanding.

The advantages use Mind Mapping are: help the student as its more easily converted into a draft, then the student can see the relationship between ideas and encourages them to group certain ideas together as they proceed. In addition, the advantages use mind mapping will assist to brains ability to concentrate, allow the essence of the material to become evident, make connections between ideas easy to see, boost our confidence in our ability to learn.

The advantages of mind mapping include its “free-form” and unconstrained structure. There are no limits on the ideas and links that can be made, and there is no necessity to retain an ideal structure or format. Mind mapping thus promotes creative thinking, and encourages “brainstorming”.

Mind Map can help learners in many thing, (Davis 2010:8-9) mentions that mind mapping can help the learners for planning, communication, to be more creative, economize the time, problem solving, attention centered arranged and explaining things, to memorize more be better, study more quickly and efficient. It can be conclude that mind mapping gives many advantages to the students to become critical thinkers to open their mind, to explore the topic to be good speak. Beside that, the teacher helps the students various their creatively.

METHOD

This study is conducted in pre-experimental design using quantitative approach with one group pretest-posttest design. This study uses pre-experimental because it does not have random assignment of subject to group or other strategy to control extraneous variable. That is why in this study the researcher just takes one group or class and uses pretest and posttest to see the result of the treatment.

The experimental research design is classified into pre-experimental design, true experimental, and quasi-experimental. Pre-experimental research does not have random assignment of subjects to groups or other strategies to control extraneous variables. True-experimental research uses randomization and provides maximum control of extraneous variables. Whether quasi-experimental research lack randomization but employ other strategies to provide some control over extraneous variables (Ary *et al*, 2002: 302).

This study is classified as pre-experimental design because it is little or no control of extraneous variables. In the one group pretest-posttest design, a single group is measured or observed not only after being exposed to a treatment of some short, but also before. Pre-experimental research involves administering pre-test to the independent variable, applying the experimental treatment to the subjects, and administering the posttest. The result of the treatment is found by comparing the pretest and posttest score.

The population on this research is the second grade of MTs Negeri Bandung Tulungagung which consist of six class. There are 264 students of the second grade students of MTs Negeri Bandung. According to Ary (2002:163)

population is all members of any well defined class of people, events or objects. A population is a set (or collection) of all elements possessing one or more attributes of interest stated by (Arikunto 2006:108).

Based on Ary (2002:163) a sample is a person of population. It means that a good sample must be representative of the entire as possible, so that the generalization of the sample as true as population. According the explanation above the sample of this research is eight B class that consists of 41 students, there are 4 male and 37 female at MTs Negeri Bandung Tulungagung in academic year 2013/2014.

In this research, the researcher used purposive sampling technique. Purposive sampling technique is a type of non probability sampling where the researcher consciously selects particular elements or subjects for addition in a study so as to make sure that the elements will have certain characteristics pertinent to the study. It normally targets a particular group of people. Purposive sampling is sample which is taken because the researcher believe that she/he could give sufficient information. The researcher use purposive sampling they have sufficient knowledge on English material. So, the researcher believe that B class of MTsN Bandung can give sufficient information.

In this research the writer used achievement test, Isnawati (2011:14) "achievement test is test that is used to measure the process that students making after learn something". This test used to measure the student achievement in reading comprehension before and after they taught by using *mind mapping technique* in MTs Negeri Bandung.

In this study, the researcher applied pre-test and post-test. Pre-test was given before teaching by using mind mapping, in this pre-test students were given task during 45 minutes on February 22, 2014 and for the 45 minutes again for giving treatment to the students. The next treatment is given the second meeting during 90 minutes on February 29, 2014. Post-test which was given after teaching by mind mapping, in this post-test the students given task by using mind mapping technique during 45 minutes after the last meeting for giving treatment on March 1, 2014.

The data collecting method is the method to obtain the data in the research. The aim of the data collecting in conducting scientific research was to get material that needed by the research. The researcher collect the data from the students' score of pre-test and post-test. The researcher gave students pre-test to know the students' reading ability before the researcher give treatment. Researcher give post-test to the students after the researcher giving treatment. The result of pre-test and post-test and then the researcher compare them.

The data obtained from research result is the results of students test that were analyzed quantitatively. Quantitative analysis was done using statistics which is called statistical analysis or inferential statistics. The quantitative data of this research in analyzed using statistical computation. This technique was used to find the significant difference on the students' reading comprehension after being taught by using *mind-mapping technique*.

The researcher used T-test according to Ary at al (2006:195) with the following formulation:

$$t = \frac{MD}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}$$

If T-Test score is bigger than T-table, the alternative hypothesis (H_a) is accepted. It means that there is different score to the second grade before using mind-mapping technique and after using mind-mapping technique. The difference is significant. If T-Test score is smaller than T-table, the null hypothesis (H_0) is rejected. It means that there is no different score to the second grade before using mind-mapping technique and after using mind mapping technique. The difference is not significant.

FINDINGS

To know the students' achievement of reading, the researcher gave pre-test and post-test in order to know their reading mastery before and after teaching reading by using mind-mapping technique. As mentioned before, the researcher used the test as the instrument in collecting data. It was given to second year class students of MTs Negeri Bandung .

The number of question given by researcher was 20 questions. It was consisted of 20 questions of multiple choices. There were 41 students as respondent at the research. The data of the students' achievement before and after teaching English reading by using mind-mapping technique can be seen in the following table.

Table 4.1 Students' Score Before & After Being Taught Using Mind-Mapping Technique

No	Subject	Pre-test Score	Post-test Score
1	A	85	95
2	B	85	90
3	C	85	95
4	D	85	90
5	E	75	95
6	F	90	95
7	G	85	95
8	H	85	95
9	I	85	95
10	J	85	90
11	K	90	90
12	L	80	95
13	M	75	95
14	N	85	95
15	O	55	95
16	P	85	95
17	Q	70	90
18	R	90	95
19	S	75	90

20	T	70	90
21	U	75	90
22	V	75	85
23	W	50	95
24	X	80	95
25	Y	80	85
26	Z	85	95
27	AA	85	95
28	BB	90	95
29	CC	80	95
30	DD	85	95
31	EE	85	95
32	FF	70	95
33	GG	85	95
34	HH	85	95
35	II	85	90
36	JJ	70	95
37	KK	85	95
38	LL	75	95
39	MM	90	95
40	NN	75	85
41	OO	95	90

To know the students' achievement that is good or not, the researcher give criteria as follow:

Table 4.2 The Scores' Criteria

Grade	Interval Class	Criteria
A ⁺	90 – 100	Excellent
A	80 – 89	Very Good
B	70 – 79	Good
C	50 – 69	Fair
D	0 – 49	Poor

Based on the statistical calculation using t-test, the researcher gives interpretation to t_{count} . First, she considered the *d.f.* with the *d.f.* (41-1=40). She checked to the score of “t” at the significant level of 0,05. In fact, with the *d.f.* of (40) and the critical value 0,05 significant t_{table} was (2.021).

By comparing the “t” that she got in calculation $t_{\text{count}} = (8.549)$ and the value of “t” on the $t_{\text{table}} = t_{0.05} = (2.021)$, it is known that t_{count} is bigger than $t_{\text{table}} = 8.549 > 2.021$.

Because the t_{count} is bigger than t_{table} the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. It means that there is significant different score of students reading achievement of the second grade students of MTs N Bandung before and after being taught by using mind-mapping technique

DISCUSSION

Based on the result, it can be concluded that using mind-mapping technique is effective in teaching reading at junior high school especially for the second grade students of MTs N Bandung. Mind mapping is one of the essential or important technique to improve student's creativity to solve problem, especially to conduct their reading comprehension (Buzan, 2005:1). Mind mapping is a diagram used to represent words, ideas, tasks, or other items linked to and around a central key word or idea. Mind map may also aid recall of exiting memories. It can be seen in the treatment process, the students be more interested and they felt enthusiast in learning reading. The students become independent and responsible in learning language especially for reading learning. By using mind-mapping, the learners can summarize the story in the form of map. It can help the learners to comprehend the story.

Based on the explanation above the teacher must not only focus on presenting materials for the students but the most important one must be considered that is how to presents the materials. In this research, the researcher uses mind-mapping technique as a way in teaching reading. In this technique students study reading narrative text and make a map based on the story. It makes them more responsible in their study. The teacher is not only keep silent and sitting on the chair during teaching and learning, but she have to control the students activity by going around to the students. This technique is done to make the use of mind-mapping in teaching and learning process.

Davis (2010:8-9) mentions that mind mapping can help the learners for planning, communication, to be more creative, economize the time, problem solving, attention centered arranged and explaining things, to memorize more be better, study more quickly and efficient. Mind-mapping technique surely showed the real effectiveness in teaching reading comprehension because it can help the students to improve their reading comprehension achievement, especially of the second grade students of MTs Negeri Bandung.

CONCLUSION AND SUGGESTION

From the result of the research finding, the researcher concludes that as , The students' reading achievement before taught by using mind-mapping is very good because the mean of the total score of 41 students is (80.60), and the percentage of very good is (53.65%). The students' reading achievement after taught by using mind-mapping is excellent because the mean of the total score of 41 students is (93.04) and the percentage of excellent is (92.68%).

Based on the statistical using analysis t-test with the significant level 0.05 and the d.f=40 shows the value of $t_{table} = (2.021)$ while t_{count} is (8.549). Because the t_{count} is bigger that t_{table} the alternative hypothesis (H_a) that states there is significant difference score of the students' reading achievement by using mind mapping technique is accepted, while the null hypothesis (H_o) that states there is no significant difference score of the students' reading achievement by using mind-mapping technique is rejected. So, there is any significant difference score of the students' reading achievement before and after taught using mind-mapping technique. From the result above implies that the

mind-mapping technique is effective used in teaching reading to the second grade students of MTs N Bandung.

For the students by mind-mapping technique, the students improve their achievement in reading. The students are suggested to follow up the reading by using it in their study. The students would be active and independent in the classroom because mind-mapping technique helps the students to be active in learning English. It is hoped that the students can increase and improve their ability. The students not only understand the word from the book but also it can helps students to understand the text or story. It can make student easy to memorize the story using a map. And they can retell the story easily. For the teacher in order to succeed in teaching English, mind –mapping technique should be used for teaching learning English, especially teaching reading. The teacher can be more creative in applying that technique to the students and use it in teaching reading so that the students will be spirit and interested in learning English. For the future writer this research is not perfect yet, it is suggested for the future researcher to conduct further research on the similar area by improving the methodology or use it as reference to conduct a further research related to mind-mapping technique in different area of teaching. This study is very important because it will give some knowledge to the researcher and to know the benefits of using mind-mapping technique in teaching English

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