THE EFFECTIVENESS OF USING MIND MAPPING IN READING COMPREHENSION OF TENTH GRADE STUDENTS AT SMAN 10 GOWA

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ABSTRAK

Tujuan penelitian ini adalah untuk mengetahui keefektifan penggunaan mind mapping terhadap kemampuan pemahaman membaca siswa. Penelitian ini merupakan penelitian pre- experimental dengan desain yang menggunakan one group pre test – posttest. Sample pada penelitian ini adalah siswa kelas X IPA1 yang terdiri dari 30 siswa dengan teknik random sampling. Hasil penelitian ini menunjukan bahwa pada hasil pre test nilai mean yang dimiliki adalah 38. 50 yang menunjukan yang menunjukan bahwa kemampuan siswa pada pre test masih sangat rendah sedangkan nilai mean pada posttest adalah 83. 17 yang menunjukan bahwa kemampuan memahami bacaan siswa meningkat. Hasil data dianalisis dengan menggunakan independent sample – test, menunjukan bahwa sig. (2- tailed) adalah 0.00 lebih rendah dari 0.05 sehingga hipotesis alternatif (Ha) diterima dan hipotesis nol (H0) ditolak. Peneliti membuktikan bahwa adalah keefektifan pada kemampuan memahami bacaan siswa melalui penggunaan mind mapping. Berdasarkan hasil penelitian ini dapat disimpulkan bawa penggunaan mind mapping dapat meningkatkan keefektifan memahami bacaan pada siswa kelas X IPA 1 SMA Negeri 10 Gowa.

Kata Kunci: Mind Mapping,Kemampuan Memahami Bacaan, Keefektifan.

ABSTRACT

The purpose of this study was to determine the effectiveness of using mind mapping on students' reading comprehension skill. The research was a pre-experimental study wih a design using one group pre test- post test. The sample in this study was students' of class X IPA 1 which consisted of 30 students using a random sampling technique. The result of this study showed that the mean value of the pre test was 38.50, which showed that the students' skill in the pre test was will very low, while the mean value of the post test was 83.17, which showed that students' reading comprehension skills had increased. The result of the data were analyzed using an independent sample- test, showing that sig, (2-tailed) was 0.00 lower than 0.05 sho that the alternative hypothesis (Ha) was accepted and the null hypothesis (H0) was rejected. The researcher proved that it was the effectiveness of the ability to understand students' reading through the use of mind mapping. Based on the result of this study, it can be concluded that the use of mind mapping can increase the effectiveness of reading comprehension in clas X IPA 1 students of SMA Nwgwri 10 Gowa

Keywords: Effectiveness, Mind Mapping, Reading Comprehension

INTRODUCTION

Reading is very essential in learning English to get information. In the reading activity, the reader should interpret the meaning of the written text. According to Baroqqah and Angraini (2020), reading is one of the critical skills that must be learned. It is a constructive process that can help students acquire a new language knowledge and experience life. Reading is very important for students because it influences the students when looking for a job. (Iman 2017).

Reading is a way of comprehending or understanding the text that needs detailed attention and concentration. It is one of the particular abilities which helps people comprehend and get the information in the text. Al-Emami (2010) states that analyzing comprehension is a complicated task that relies upon many automatic and strategic cognitive processes. Al-Memami also appended that studying fluency, the ability to read with pace and proper expression is essential for comprehension. It can be noticed that high-status reading occupies and captures other learning skills. Moreover, reading is a working process that transfers particular arrangements from the eye into the brain to produce information.

Snow (2002) stated that reading comprehension is the ability to understand something and gain knowledge and information from written text. The reader must be able to understand what they read, which involves the process of acquiring grammatical structures, vocabulary, and meaning. It means that students in demand need to understand the content of the text they read and think about the important points of information in the text. English is a foreign language that must be taught in Indonesia, from elementary to university. Students are taught English to expand their knowledge of science, technology, culture, and the arts. Students are expected to be able to master English orally and in writing.

Nuttal (2005), stated that it is found that Indonesian students experience reading difficulties as foreign language learners such as reading words slowly, inability to implement reading strategies, easily frustrated and dissatisfied, especially when they find some difficult words, and reading texts aloud which can hinder comprehension, and they get confused reading the original text in a foreign language.

Based on the researcher's experience after making observations at SMA Negeri 10 Gowa, the researcher chose reading comprehension as the research title, because of the problems experienced by researchers at SMA Negeri 10 Gowa. The researcher found problems in class X IPA 1 students who felt that reading comprehension was not easy and there was a lack of motivation in learning English, especially in reading skills so students found it difficult to understand the English text given by the English teacher

This study had been conducted by several researchers One of the research had done by Indrayani (2014) The Effectiveness Of Using Mind Mapping In Improving Students' Reading Comprehension Of Narrative Text A Quasi-Experimental Study At The Second Grade Of SMA Mathla'ul Huda ParungPanjang-Bogor This study found that mind mapping technique was effective in improving students' reading comprehension achievement, especially for narrative text at the second-grade students of SMA Mathla'ul Huda ParungPanjang Bogor academic year 2013/2014. The results showed that the experimental class had a higher gain score than the controlled class and that the t-observation (to) score was higher than the t-table (tt) score. Therefore, teaching reading comprehension of narrative text by using mind-mapping techniques is effective.

Dwisetyati (2013)*, entitled "The Use of Mind Map Technique in Improving Student's Reading Comprehension at the One of Junior High School in Bandung".* This pre-experimental study found that the mind map technique can improve students' reading comprehension and their response to it. Results showed that the null hypothesis(H0)

Teaching Reading Comprehension Through Mind Mapping: A Case of The Eleventh Grade Students of SMA N 2 Demak in the academic year 2008/2009 by (Amalia 2008). This study found that using mind mapping in teaching reading comprehension is effective in improving students' reading comprehension achievement, with an average score of 12.6 and a standard deviation of 8.88. The study has both similarities and differences with the writer's study.

The study above has more differences than similarities with the writer's study. The differences are in the place, population and sample, method, and design of the

study. The only similarity with the writer's study is the use of mind mapping as a way to know the effectiveness of reading comprehension.

METHOD
 Research Design
     This research was conducted using a quantitative approach. Quantitative research methods can be interpreted as a research method based on the philosophy of positivism, used to study populations or a particular sample, collection technique sampling was generally carried out random, data collection using research instruments, data analysis is quantitative/ statistical to test the hypothesis that has been set (Sugiyono, 2009).
     In more detail in this study, researchers used a pre-experimental design in the form of one group pretest-posttest design. The research used pre-experimental design models with one group pretest-posttest form design containing that paradigm there was a given group treatment/treatment and so on observed results, before being given any treatment pretest to determine the initial conditions.

Instruments
The Instrumentsof this research were reading tests and documentation.
     The test is used to obtain data on research results and student activities in learning, There are two tests used in this study, namely: pre-test will use both control and experimental class before carrying out the research then post-test was used after being given treatment both control and experimental class.
     Documentation is anything that contains information serving as proof. According to Syahrum & Salim (2012), documentation is all of the data collected and interpreted by the researcher and also supported by some media such as photos or videos which will be related to the research focus. These pictures will give the real situation during the process.

Data Analysis
     In collecting data, the researcher conducted research on tenth-grade students of SMA Negeri 10 Gowar. The main procedure of this research was the instrument used consisting of a pre-test, post-test, treatment, and documentation. First, the researcher gives the pre-test. Furthermore, the researcher was given treatment after being given a pre-test at the first meeting. The treatment was given in six meetings.

     The purpose of this treatment is to apply Mind Mapping in improving students reading comprehension. In the last activity, students did a post-test. In this test, students had done a post-test which contains short story questions given by the researcher. The test material was the same as the previous test, which used multiple choice containing 20 questions but with a different story given by the researcher. Then, the researcher took essay questions to calculate the correct answers.The Documentation was to obtain data on student achievement, namely the collection of image data from the results of the pre-test, post-test, and treatment of students. The data analysis technique used was directed to answer the problem formulation or test the hypothesis that has been formulated, because the data was quantitative, the data analysis technique uses statistical methods. Descriptive analysis and inferential analysis using SPSS 22 windows program. The type of data in the form of students' reading comprehension is further classification quantitatively based on the classification technique, namely:

Table 1
Student's Reading Scores

No	Clasification	Score
1	Very good	90-100
2	Good	70-89
3	Fair	50-69
4	Poor	30-49
5	Very poor	10-29

RESEARCH FINDING

Research Findings

Descriptive Statistical Analysis

The researcher used a pre-test to know the students' effect before using Mind Mapping on students' reading comprehension tenth-grade students at SMA 10 Gowa. The description of the students' pre-test results can be seen in the table below

Table 2 Students' score pre-test

Interval of score	Category	Frequency (F)	Percentages (%)	Minimum Completeness criteria score:70
90- 100	Very good	0	0 %	-
70 - 89	Good	0	0%	-
50 - 69	Fair	9	30 %	Failed
30 - 49	Poor	15	50 %	failed
10 - 29	Very poor	6	20 %	failed
Total		30	100%	**0 (pass the score of 70)**

Based on Table 2 in the pre-test shows that 0 students (0%) do not have a Very Good category in the score interval (90-100), there were 0 students (0%) do not have a good category in the score interval (70-89), there were 9 students (30%) have a fair category in the score interval (50-69), there were 15 students (50%) have a poor category in the score interval (30-49), there were 6 students (20%) have a very poor category in the interval score(10-29). Then there were no students who passed the KKTP (70)

Description of the student's scores post-test

The researcher used a post-test to know the students' effect after using mind mapping in reading comprehension of tenth-grade students at SMA 10 Gowa. The description of the students' pre-test results can be seen in the table below:

Table 3 Students' score posttest

Interval of score	Category	Frequency (F)	Percentages (%)	Minimum Completeness scriterias core:70
90- 100	Very good	10	34 %	success
70- 89	Good	20	66%	success
50- 69	Fair	0	0 %	-
30- 49	Poor	0	0%	-
10- 29	Very poor	0	0%	-
Total		30	100 %	**30 (pass the score of 70)**

Table 3 shows 10 students (34%) had a very good category in the interval (90- 100%) score post-test, there were 20 students (66%) had a good category in the score interval (70- 89), there were 0 students (0%) did not have a fair category in the score interval (50-69), there were 0 students (0%) did not have a poor category in the score interval (30-49).), there were 0 students (0%) who did not have a very poor category on the interval score (10-29). Then there were no students who passed the KKTP(70).

Descriptive data analysis

Table 4 Descriptive Data Analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pretest	30	20	65	38.50	13.140
posttest	30	70	95	83.17	7.711
Valid N (listwise)	30				

Source:IBMSPSSStatisticsVersion22

Based on Table 4.3 above, it can be seen that N = Valid 30 and 0 students are missing from the class. The mean of the pre-test was 30.50 and the post-test was 83.17. The minimum pre-test was 20 and the post-test was 70. The maximum of the pretest was 65 and the post-test was 95.Based on the data we can know that there was an improvement between the Student's pre-test and post-test.

Inferential Statistical Analysis

Normality test

Table 5 Tests of Normality

posttest	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pre-test 1	.141	30	.131	.942	30	.103
posttest	.159	30	.050	.931	30	.053

a. Lilliefors Significance Correction

Source:IBMSPSSStatisticsVersion22

Based on Table 4.5, it can be seen that the result of the data is t- t-value (Sig.) >0.05. It means that the variables are normally distributed. So, because all the data is normally distributed then the analysis can be continued.

Homogeneity test

Table 6 Test of Homogeneity of Variances

Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
.812	5	24	.553

Source: IBM SPSS statistics version 22

Based on Table 4.5, it can be seen that the sig P value is 0,051. It means that the sig t value > 0.05 so the data is homogeneity and the data analysis can be continued with parametric statistics.

Hypothesis test

Table 7 Paired Samples Test

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	pretest - posttest	-44.667	15.698	2.866	-50.529	-38.805	-15.584	29	.000

Source: IBM SPSS Statistics variation 22

Based on Table 4.6 above, it can be seen that the t value was -15.584 and the df value is 29 with a significance value of t (sig) 0,000 < 0.05, this shows that there is a significant difference. In other words, accept the alternative hypothesis (H_a) and reject the null hypothesis (H_0) to test. From the results of hypothesis testing, it is proven that . "the effectiveness of using mind mapping in reading comprehension of students tenth-grade at SMA Negeri 10 Gowa."

DISCUSSION

This research was conducted to find out whether the use of Mind mapping was effective in the reading comprehension of tenth graders at SMA Negeri 10 Gowa. The researcher used Mind mapping as a medium for improving students' reading comprehension so that students are interested and easily understand lessons. In this study, the researchers used a pre-experimental design using the Group Pretest-Posttest Design. The purpose of this study was to prove the increase in the use of mind mapping for students' reading comprehension at SMA Negeri 10 Gowa. The population in this study were all students of class IX. The sample of this research is 30 students of class IX IPA 1. In the process of this research, the researcher was given an initial or pre-test to students before being given treatment by providing an English short story to find out the extent of students' reading comprehension. Then, the researcher gave a final test or Post-test after being given treatment using mind mapping. To find out whether the use of mind mapping has an increase in reading comprehension.

In this study, four meetings were held to conduct treatment using mind mapping. The students were given a short story entitled Golden Eggs, the Monkey and Crocodile, The Lion And The Mouse And The Ugly Duckling. Researchers are given short stories to make students enjoy learning. This short story includes several examples of everyday stories to make it easier to understand the lesson.

Based on the results of the study, namely regarding the comparison of statistical values, pretest scores were carried out by 30 students where 6 (20%) students were in the very poor category and 15 (50%) students were in the less category. This shows that not a single student reached the KKTP. In the pretest score, the lowest score is 20 scores and the highest score is 65 scores with an average of 38.50. This means that the ability of students before being given treatment is still very lacking. Based on previous observations, this happened because most of the students did not understand and only carelessly answered the questions given.

Then there was an increase in students' post-test results, namely 10 (34%) students were in the very good category, 20 (66%) students were in a good category, 0 (0%) students were in the fair category, 0 (0%) students were in the poor category, 0 (%) students were in the very poor category. What was interesting about the post this test

is that there are no students who score in the very poor category, and in this Post-test there are 30 (100%) students who meet the KKTP. Then the highest score on the post-test test was a score of 95 and the lowest score was a score of 70 the average was 83.17 meaning there was an increase that it can be said that the use of Mind Mapping by using short story reading can make it easier for students to learn English, especially reading comprehension. As for the increase in the use of Mind Mapping in learning to read the short story, it can be seen through hypothesis testing, namely by statistical analysis which states that the value of Sig is 0.000 < 0.05 and *tcount* of Sig < is 0.000 < 0.05 So, *Ha* is accepted and *H*0 is rejected. So there was a significant increase in students' reading comprehension after being taught using Mind Mapping for tenth-grade students at SMA Negeri 10 Gowa.

CONCLUSION

Based on the findings and discussions in Chapter IV, it is shown that the use of mind mapping can enhance students' reading comprehension for the tenth-grade students at SMAN 10 Gowa. The improvement can be seen by the students' mean scores that increase in the post-test. Besides that, students' pre-test scores showed that no student got the minimum completeness criteria, while in the post-test 30 students passed the minimum completeness criteria. Furthermore, from the reading assessment criteria, we can conclude that the best comprehension of students in reading assessment is the comprehension to focus and accuracy of answer criteria. It can be seen in the improvement in the post-test. In short, the result of this study indicated that short stories can be applied in the teaching and learning process, especially in improving students' reading comprehension.

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