



# **Statistic Analysis The Ability To Use Mind Mapping In Descriptive Writing At Junior High School**

**Serly Maulina Syaif<sup>1</sup>, Suhartawan Budianto<sup>2</sup>, Kusuma Wijaya<sup>3</sup>**

<sup>1</sup> English Literature Department, Universitas Dr. Soetomo, Surabaya, Indonesia

<sup>2</sup> Advisor, English Literature Department, Universitas Dr. Soetomo, Surabaya, Indonesia

<sup>1</sup>[serlymaulina07@gmail.com](mailto:serlymaulina07@gmail.com), <sup>2</sup>[suhartawan.budianto@unitomo.ac.id](mailto:suhartawan.budianto@unitomo.ac.id), <sup>3</sup>[kusuma.wijaya@unitomo.ac.id](mailto:kusuma.wijaya@unitomo.ac.id)

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## **Abstract**

This study examines the ability to use mind mapping in descriptive writing in grade eight junior high school. This study uses quantitative methods by dividing into two groups, namely the experimental group and the control group. The experimental group is taught using mind mapping and the control group taught with the classical method. Data analysis is calculated using the t-test formula. The result showed that mind mapping method is effective in descriptive text writing. It can be proven in the result of the value of  $t = -4.982$  with  $p\text{-value} = 0.000$ . So, it can be concluded that  $H_0$  is rejected and  $H_1$  is accepted. So, the use of mind mapping method is effective to help students think more creatively in descriptive writing.

**Keywords:** Descriptive text; Junior high school; Mind mapping

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## **INTRODUCTION**

Writing is believed to be an important language skill that plays a fundamental role in communication, especially in educational setting (Mourtaga, 2004). On the other hand, Sudaryanto (2001 : 64), says to express something in mind and feelings, a person's ability in writing skills is needed. Therefore, writing ability has an important role because it can be used to communicate and share ideas in exams, reports, papers, and so on through writing. However, many writers find that students struggle with writing, especially when it comes to writing descriptive texts. Most students have difficulty in organizing paragraphs. Not only that, but some of the problems students face include, first, not knowing what to write due to a lack of vocabulary and weak sentence construction skills. This makes students feel frustrated when writing. Second, many students are not focused they are often distracted by their own activities in class, such as chatting with friends or using their phones. As a result, students find it difficult to write.

With the above problems, perhaps one of the causes is that the teaching methods used by teachers are boring and monotonous. So it requires other teaching methods that can be used in the classroom. Especially in the teaching of descriptive texts. Some teachers still use book materials, explain and translate texts and make descriptive sentences based on words they know. Students get bored faster if they use such teaching methods. Considering the problems, a teacher must find a teaching method that can increase student motivation in learning descriptive texts.

Mind mapping is one of the teaching methods used by the writer to improve the ability to write descriptive texts. According to Buzan (2006) Mind mapping is a diagram that has functions as a way to organize ideas and represent words, tasks, or another links that arranged a central keyword by branches and typically it contains words, colors, short phrase and picture. By using the mind mapping method, students will not feel bored with the teaching in the classroom.

Previous study that has examined the use of mind mapping methods in descriptive writing is Thi, Lan Anh Le, Nga PhuongLe, Ngo, Lan Anh ThiTran, Quynh Nga Thi (Thi et al., 2023) entitled The Use of Mind Mapping Technique in Descriptive Writing among Primary School Students. The study showed that the use of the mind mapping method was very effective in descriptive writing in the classroom. Mind mapping method can help students in thinking creatively.

This study will prove that the use of the method has better results than the use of the classical method. The hypothesis in this study are  $H_0$  : Mind mapping does not have a significant improvement in descriptive writing.  $H_1$  : Mind mapping has a significant improvement in descriptive writing.

## **METHOD**

This study used quantitative research methods. This study used an experimental research design. Experimental research is a type of research that aims to determine the influence of a variable on other variables on predetermined conditions. There are three processes to collect data pre-test, treatment, and post-test. In the pre-test, students will be given questions to describe something according to the picture to get a score before getting treatment. After conducting the pre-test, the writer taught descriptive material in both classes. In the experimental class, the writer used mind

mapping as a teaching method. Meanwhile, in the control class, the writer used the classical method as a teaching method. The last is the post-test, in this test students are given the same questions as in the pre-test, namely describing something according to the picture. In the end, the writer compared the results of the scores obtained by students to find out the difference between the pre-test and the post test. In the data analysis, the writer used the t-test to prove the hypothesis of the experimental group and the control group and the differences by looking at the results of the pre-test and post-test.

This research was conducted at SMP Dharma Wanita Surabaya. It is one of the private schools in Surabaya which is located on Jl. Kendangsari V, Kendangsari, Tenggilis Mejoyo District, Surabaya City, East Java Province. The writer chosen that school because, the writer had attended school there in 2013-2016. The population of this research is taken from the students of the eighth grade of SMP Dharma Wanita Surabaya in the academic year 2024/2025. There are four classes in the eighth grade, they are 8A, 8B, 8C, 8D. In this study, the sample used was 58.7% of the population. So, there are 52 students who take the post-test, treatment, and post-test.

The pre-test was given at the beginning of entering the experimental class and control class. This test was carried out to find out the knowledge of students before receiving treatment. Both the group experimental class and the control group were asked to write descriptive sentences according to the images provided by the writer. treatment was given at the time after the pre-test. In the experimental class, descriptive text material was taught using the mind mapping method. And the control class was taught descriptive text material using the classical method. Post-test was given when everyone had received treatment. This post test had the goal of getting an average score on the experimental group and the control group. This test was used to find out the difference between these two classes before and after receiving treatment. In the data analysis, the writer used a t-test to prove the hypothesis.

## RESULT

Table. 1 Normality Test

Shapiro-Wilk				
	Class	Statistic	Df	Mr.
Result	Class B	.947	25	.216
	Class C	.946	27	.169

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for Class B in the Shapiro-Wilk normality test revealed a statistical value of 0.947, a significant value (p-value) of 0.216, and a df of 25. It is possible to conclude that the data for Class B are regularly distributed because the p-value is higher than 0.05. Meanwhile, Class C's Shapiro-Wilk statistical value is 0.946, with a significance value (p-value) of 0.169 and a df of 27. Additionally, the data for Class C can be regarded as regularly distributed because the p-value is higher than 0.05.

Table. 2 Descriptive Analysis

	Class	N	Mean	Std. Deviation	Std. Error Mean
Result	Class B	25	63.72	17.787	3.557
	Class C	27	82.48	6.417	1.235

A comparison of Class B and Class C is shown in the Group Statistics table. With a mean of 63.72 and a standard deviation (Std. Deviation) of 17,787, Class B comprises 25 samples (N). Meanwhile, Class C has a sample size (N) of 27, a standard deviation of 6.417, and an average score of 82.48. This indicates that Class C has a higher average score than Class B, and the lower standard deviation value indicates that there is less variation in Class C's grades.

Class B's standard error mean is 3,557, whereas Class C's is 1,235. In comparison to Class B, the average estimate for Class C is more accurate and consistent, as indicated by the smaller Standard Error Mean value. The difference also shows that while Class C's average value is greater, Class B's score distribution is more dispersed. which may have an impact on how the two groups' results are interpreted.

Table 3. Independent Samples Test

Levene's Test for Equality of variances				t-test for equality of Means		
		F	Sig	t	df	Sig(2-tailed)
Result of the study	Equal variances assumed	26.191	.000	-5.135	50	.000

	Equal variances not assumed			-4.982	29.735	.000
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In this study, the group that used the mind mapping method was group 2. The purpose of mind mapping in descriptive writing is to assist students in organizing and structuring their ideas conceptually before writing, which can improve the standard of their work. This group was contrasted with the other groups in the data analysis to see if mind mapping significantly affected students' descriptive writing ability.

The results of the analysis data show that the experimental group and the control group have very significant differences. In this study, the group that used the mind mapping method was group 2. Based on Levene's Test for Equality of Variances, If the sig value was greater than 0.05 then, the interpretation of the Independent Samples Test table was guided by the value contained in the "Equal Variances Assumed" table. Meanwhile, if it is known that the sig value was less than 0.05, the interpretation of the output of the Independent Samples Test was guided by the values contained in the "Equal Variances Not Assumed" table. Based on the statement above a value of  $F = 26.191$  with Sig. = 0.000 was obtained, which indicates that the variance between the two groups differed significantly. Therefore, the t-test used refers to the results of equal variances not assumed.

The conclusion of hypothesis was  $H_0$  was rejected and  $H_1$  was accepted. according to the result of the t test, which showed a value of  $t = -4.982$  with p-value = 0.000, which is smaller than 0.05, we may conclude that eighth grade junior high school students' ability to write descriptively was significantly impacted by their use of mind mapping. With a significant mean difference (Mean Difference = -18,761) and a 95% confidence interval between -26,455 and -11,068, this study indicates that the group that used mind mapping showed a greater improvement in descriptive writing skills compared to other groups. This reinforces the hypothesis that mind mapping can be an effective tool to help students organize their minds and produce more structured and clear writing.

## CONCLUSION

The purpose of this study is to demonstrate the effectiveness of the mind mapping technique when applied to descriptive writing. It may be concluded, based on the analysis, that the mind mapping method is quite effective when used to write descriptive texts. Students can effectively arrange their thoughts and generate more structured and clear writing by using the mind mapping method. The outcomes of their pre- test and post-tests can be used to demonstrate this. We may conclude that the application of mind mapping has a substantial impact on eighth grade junior high school students' descriptive writing skills because the results of the test showed a value of  $t = -4.982$  with a p-value of 0.000, which is smaller than 0.05. The conclusion of hypothesis was  $H_0$  was rejected and  $H_1$  was accepted.

## REFERENCES

- Buzan, T. (2006). Learning skills: Mind mapping: Mind mapping, whole brain note taking, uses both sides of your brain to study subjects usually only
- Mourtaga, K. 2004. Investigating Writing Problems Among Palestinian Students. Author House.
- Thi, L. A., Le, N. P., Ngo, L. A. T., & Tran, Q. N. T. (2023). The Use of Mind Mapping Technique in Descriptive Writing among Primary School Students. *Journal of Educational and Social Research*, 13(4), 321–330. <https://doi.org/10.36941/jesr-2023-0112>
- Rahmad Husein, F. M. A. (2017). the Effect of Mind Mapping Technique on Students' Achievement in Writing Narrative Text. *REGISTER Journal of English Language Teaching of FBS-Unimed*, 6(1), 488–491. <https://doi.org/10.24114/reg.v6i1.5369>
- Suyanto, A. (2018/ijee.v2i2.308915). The Effectiveness of Mindmapping in Improving Students' Writing Skill Viewed from Their IQ. *IJEE (Indonesian Journal of English Education)*, 2(2), 101–119. <https://doi.org/10.1540>
- Duha, L. (2024). Students' Problem in Writing Descriptive Text At the Seventh Grade of Smp Swasta Kristen Bnkp Teluk Dalam. *Research on English Language Education*, 6(1), 49–64. <https://doi.org/10.57094/relation.v6i1.1834>