



The Effect of Mind Mapping Teaching Technique to The Writing Ability of Tenth Grade Students of Sma S YP HKBP 1 Pematangsiantar in a Descriptive Text

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Abstract

This research aims to know the effect of mind mapping teaching technique to the writing ability of tenth grade students of SMA S YP HKBP 1 Pematangsiantar in a descriptive text. This research was quantitative research. To get the answer for the research, the researcher used quasi-experimental design. The population of this research was tenth grade students of SMA S YP HKBP 1 Pematangsiantar that consisted of four classes. The sampling technique in this research was purposive sampling. The sample consisted of two classes, namely class X-3 used the mind mapping teaching technique as the experimental class and class X-4 used the guided writing teaching technique as the control class. To collect the data, the researcher used the test. The researcher used essay test as the instrument of the research. Paired-samples t-test was used by the researcher to test the hypothesis. The result of the research showed that the effect of mind mapping teaching technique was more significant than guided writing teaching technique. It was proved by the t-test value $(2.52) > t\text{-table } (1,67)$. It means that H_a was accepted and H_0 was rejected. The writing ability of students in a descriptive text in experimental class was improved since they were taught by mind mapping teaching technique. It is recommended that the result of this research can be used in order to develop the teaching technique at school.

Keywords: Mind Mapping, Writing, Descriptive Text

INTRODUCTION

English serves as a vital means of communication and holds the top position globally due to its widespread use, as noted by Rao (2019). In Indonesia, English is regarded as a foreign language and is taught in educational institutions from kindergarten through university. This is why English instruction is incorporated at every educational level in the country. One such institution is SMA S YP HKBP 1 Pematangsiantar, a senior high school that promotes English language learning among its students. According to Uusen, as cited in Putri (2021), writing is a means of expressing ideas in written form through letters, words, art, or other media, and it involves a mental process to convey those ideas effectively. Writing skills require in-depth learning, and students must master all components to produce quality writing. Richards and Renandya (2002), referenced in Oktavianda (2020), note that writing is the most challenging skill for foreign language learners. In tenth grade, students study various types of writing in English, with one of the texts being descriptive writing.

Descriptive text is one of the genres studied in the tenth grade of senior high school. Mukarto (2007), as cited in Siregar & Harida (2021), defines descriptive text as a type of writing that describes a subject. Writing descriptively involves portraying the appearance of someone or something, according to Abbas & Dwita (2019). Students often encounter challenges in organizing their ideas when writing descriptive texts, as noted by Yaqin & Al Halim (2023). Acquiring the skill to write descriptive texts is essential; therefore, it is crucial for teachers to select appropriate teaching techniques, as emphasized by Sumama & San Rizqiya (2023).

During the researcher's internship program with tenth-grade students at SMA S YP HKBP 1 Pematangsiantar, it was observed that many students struggled with writing. First, students had difficulty transforming their ideas into written text, often unsure of how to begin. Second, they faced challenges in articulating their thoughts into coherent sentences or paragraphs. Third, students were unable to distinguish between descriptive paragraphs and identification paragraphs within the generic structure of descriptive texts. Fourth, they lacked knowledge about the appropriate grammar to use when writing descriptive texts. Lastly, the Mind Mapping teaching technique had not been implemented in the English classes.

To tackle the difficulties associated with writing descriptive texts, researchers recommend implementing the Mind Mapping technique. This method offers a practical and engaging way for students to compose descriptive texts, helping them cultivate vital writing skills while enhancing their creativity and critical thinking, as highlighted by Wahid & Sudirman (2023). The Mind Mapping technique, introduced by Tony Buzan, aids students in writing more effectively, as stated by Damayanti (2023). According to Buzan (2006:23), referenced in Susithra et al. (2023), mind maps enable students to learn, organize, and store information in a way that allows for easy classification and quick retrieval (enhancing memory). This technique encourages students to take notes by focusing on keywords and images, stimulating their creativity by allowing them to envision their ideas not just with words, but also through mental illustrations.

The researcher selected the Mind Mapping technique because it serves as a diagram that visually represents ideas, tasks, words, and other elements organized around a central keyword. According to Bennett and Rolheiser, as cited in Solusia (2020), mind mapping can be utilized for various purposes, including note-taking, exam preparation, brainstorming ideas, and establishing connections between those ideas. Thus, mind maps are intended to illustrate the relationships between specific concepts, particularly the components of a narrative. Furthermore, mind mapping is a flexible and effective tool for brainstorming, planning, problem-solving, note-taking, and learning, as noted by Shi et al. (2023).

Based on the background above, the researcher tries to conduct a research with the title **"The Effect of Mind Mapping Teaching Technique to the Writing Ability of Tenth Grade students of SMA S YP HKBP 1 Pematangsiantar in A Descriptive Text"**

METHOD

This research employed a quantitative method, specifically an experimental research design. According to Creswell (2018), quantitative research involves testing objective theories by exploring the relationships among variables. The researcher utilized a quasi-experimental design for this study, which is a type of comparative group design. Pre-tests and post-tests were administered in two classes: an experimental group and a control group, with results compared before and after the treatment. This design aimed to assess the impact of the Mind Mapping teaching technique on the writing abilities of tenth-grade students at SMA S YP HKBP 1 Pematangsiantar. In the experimental group, the researcher applied the mind mapping technique, while the control group received instruction using a guided writing technique.



This research involved first-year tenth-grade students at SMA YP HKBP 1 Pematangsiantar for the 2023/2024 academic year. The study took place in the tenth-grade classes X-3 and X-4 at the same school. The researcher selected these two classes based on experiences gained during an internship program, where they had the chance to interact with students in X-3 and X-4. Class X-3 consisted of 25 students, and class X-4 also had 25 students, resulting in a total of 50 students participating in the study. Class X-3 served as the experimental group, while class X-4 acted as the control group. The researcher provided worksheets for students to write a descriptive text about a person, guiding them to develop two paragraphs: an identification paragraph and a description paragraph. Both the pre-test and post-test were allocated 30 minutes each. Additionally, the researcher utilized a scoring rubric to evaluate the students' performance in writing the descriptive text.

RESULT AND DISCUSSION

Data Description

The data for this research comprised the paragraphs written by students on descriptive texts following the generic structure. Each paragraph included an identification section and a description section. Specifically, the study focused on the paragraphs created by students based on the standard format of descriptive texts. From the total number of paragraphs submitted by the students, two paragraphs from each student were selected for evaluation as part of the sample. After reviewing their descriptive texts, the paragraphs were assessed using a rubric based on the generic structure. The researcher utilized a scoring rubric that evaluated two key writing aspects: Identification and Description. Each class had 25 students who received the worksheet and wrote a descriptive text about a person, including both the experimental and control groups.

To assess the impact of the mind mapping teaching technique, the researcher administered both pre-tests and post-tests in the experimental class. The scores from these tests are presented in the table below.

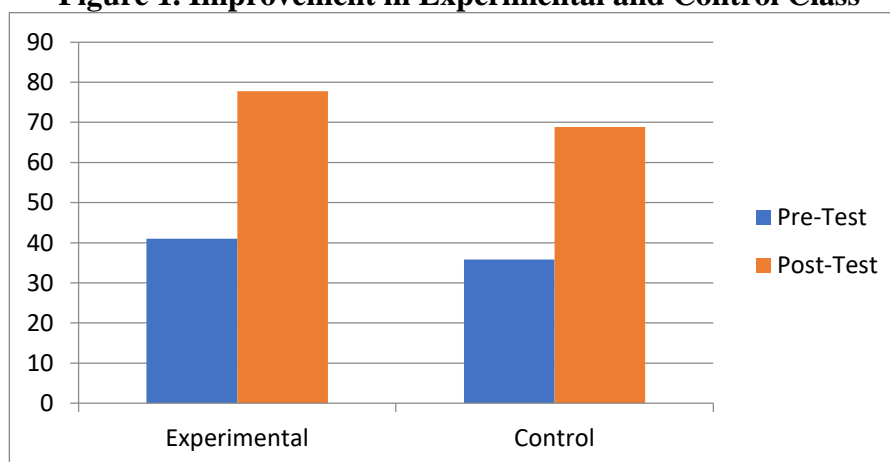
Table 1. Students scores of the Experimental Class

No	Student's Initial Name	Pre Test	Post Test
	AS	35	70
	ALS	45	75
	AKS	45	75
	ASPS	25	65
	APS	25	75
	CGRN	25	80
	COS	50	90
	DMS	35	75
	DIBR	45	90
.	FS	25	75
.	GYS	25	75
.	HMT	50	85
.	HPN	40	85
.	IVS	55	75
.	MYS	75	90
.	MPS	45	75
.	MS	25	70
.	MAS	25	75
.	NND	50	75
.	OS	60	85
.	OSG	35	75

.	PEK	50	65
.	SMB	50	85
.	SS	25	75
.	SNAS	60	85
Σ		1025	1945

In the experimental class, the lowest pre-test score recorded was 25, which was achieved by 8 students. The scores of the other students were as follows: 4 students scored 35, 1 student scored 40, 4 students scored 45, 5 students scored 50, 1 student scored 55, 2 students scored 60, and 1 student attained the highest score of 70. The total score for the pre-test in this class amounted to 1,025, resulting in an average score of 41. For the post-test, the lowest score was 65, obtained by 2 students. The distribution of scores was as follows: 2 students scored 70, 12 students scored 75, 1 student scored 80, 5 students scored 85, and 3 students achieved the highest score of 90. The total score for the post-test in this class was 1,945, leading to an average score of 77.8.

Figure 1. Improvement in Experimental and Control Class



After calculating the mean scores for both the pre-tests and post-tests of the experimental and control groups, the researcher presented the combined data in a graph. The chart clearly shows an improvement in student performance, especially after the intervention.

The experimental group, which employed the Mind Mapping teaching technique, exhibited a notable enhancement in writing skills. Specifically, the mean score for the experimental class rose from 41 in the pre-test to 77.8 in the post-test. In contrast, the control group, which continued with traditional teaching methods, experienced a more modest increase, with their mean score going from 35.8 in the pre-test to 68.8 in the post-test. This resulted in an increase of 36.8 points for the experimental class, while the control class saw an improvement of only 33 points.

The results of this study indicate that the Mind Mapping technique significantly influenced the enhancement of students' writing abilities, particularly in creating descriptive texts. The greater progress observed in the experimental class compared to the control class suggests that using engaging and innovative teaching strategies can effectively foster writing skills among students. This highlights the importance of adopting creative teaching methods to boost student engagement and improve educational outcomes in writing proficiency.

Testing Hypothesis

After conducting the data analysis, the researcher found that the t-test value was 2.52. The distribution table and t-test value were then calculated for various degrees of freedom (df). In this study, the degrees of freedom were determined to be 48 and at a significance level of 0.05, the t-table value was also 1.67. Based on these calculations, the alternative

hypothesis (H_a) was accepted, while the null hypothesis (H_o) was rejected, as the t-test value surpassed the t-table value at the 0.05 significance level, specifically $2.52 > 1.67$.

Research Findings

Based on the data analysis, the researcher determined that the Mind Mapping technique significantly enhances students' ability to write descriptive texts.

1. Experimental Class
 - a. The highest pre-test score recorded in the experimental class was 75, while the lowest score was 25.
 - b. After implementing the Mind Mapping technique as a teaching method, the post-test results showed a significant improvement, with the highest score reaching 90 and the lowest score at 65.
 - c. The total score for the pre-test in this class was 1,025 points, resulting in an average pre-test score of 41.
 - d. Following the instructional intervention, the experimental class achieved a total of 1,945 points in the post-test, leading to an improved average score of 77.8.
2. Control Class
 - a. In the pre-test, the lowest score for the control class was 25, while the highest score was 65.
 - b. In the post-test, the control class scored as low as 45 and as high as 90. The total score for the pre-test in this class was 895 points, resulting in an average pre-test score of 35.8. Following the instructional intervention, the control class achieved a total of 1,720 points in the post-test, leading to an improved average score of 68.8.
3. Statistical Analysis

The t-test value calculated was 2.52, which was greater than the t-table value of 1.67 at a significance level of 0.05. This indicates that the alternative hypothesis (H_a) was accepted, while the null hypothesis (H_o) was rejected, confirming the effectiveness of the Mind Mapping technique in enhancing students' writing abilities, particularly in composing descriptive texts.

This data highlights the positive impact of using engaging teaching methods on student engagement and educational outcomes in writing proficiency. The findings suggest that innovative strategies like Mind Mapping can significantly improve students' writing skills, making them more effective in expressing their ideas in descriptive text.

Discussion

The researcher discussed the findings of this study, which examined the effect of the mind mapping teaching technique on the writing abilities of tenth-grade students at SMA YP HKBP 1 Pematangsiantar, specifically in crafting descriptive texts. The sample was drawn from both the experimental and control classes.

In teaching descriptive writing using the mind mapping technique, the researcher identified several advantages. Students displayed increased enthusiasm and interest during the writing lessons. They found it easier and more flexible to engage with the material provided by the teacher, as mind mapping allowed them to effectively organize their ideas. Before starting the lessons, students were encouraged to ask questions about the material taught using the Mind Mapping Technique, fostering active learning in the classroom. Additionally, students were able to express their opinions or pose questions to the teacher regarding the learning content. However, some challenges arose, such as instances of students copying mind maps from their peers instead of creating their own. Furthermore, teachers needed to monitor and supervise students to prevent distractions and ensure that activities remained focused on learning.

As students gained a better understanding of effective writing through the descriptive text lessons, their ability to produce quality written work on assigned topics improved. When

students developed strong writing skills, they became capable of translating their thoughts into written form, addressing various aspects of writing. It can be concluded that the Mind Mapping Technique is a viable method for teaching writing in descriptive texts. The researcher calculated the mean scores of the students' writing abilities based on two assessments: the pre-test and post-test. The mean score for the pre-test in the experimental class before the intervention was 41, while the mean score for the post-test after the intervention rose to 77.8.

CONCLUSION

Based on the data analysis, findings, and discussions from this research, the researcher concluded that the mind mapping teaching technique positively influenced the writing abilities of tenth-grade students at SMA YP HKBP 1 Pematangsiantar in composing descriptive texts. During learning activities, students were more engaged when using the mind mapping technique, which encouraged them to think critically and creatively while writing. They were able to effectively develop both the identification and description paragraphs in their descriptive texts. However, the overall effect was not extremely significant. In contrast, when guided writing was employed, students were less active in their learning, as the process was primarily teacher-centered, limiting their opportunities for creative thinking. The impact of the mind mapping teaching technique was found to be more significant than that of the guided writing technique regarding the writing abilities of tenth-grade students at SMA YP HKBP 1 Pematangsiantar. This was evidenced by a t-test value of 2.52 compared to a t-table value of 1.67. Since the t-test value exceeded the t-table value ($2.52 > 1.67$), it indicates that the mind mapping technique had a more substantial effect on the students' writing abilities in descriptive texts than the guided writing technique. Consequently, the researcher accepted the alternative hypothesis (H_a) and rejected the null hypothesis (H_o). The students' writing achievements improved after implementing the mind mapping technique, as it made them more active and creative in acquiring new knowledge and information during the learning process, particularly in writing descriptive texts.

REFERENCES

- Abbas, M. F. F., & Dwita, S. E. (2019). SOLVING THE STUDENTS' PROBLEM IN WRITING DESCRIPTIVE TEXT THROUGH ATTRIBUTE CHARTS STRATEGY. *Lectura: Jurnal Pendidikan*, 10(1), 95-106.
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed*. Los Angeles: SAGE Publications, Inc.
- Damayanti, R. F. (2023). THE EFFECT OF USING MIND MAPPING IN RECOUNT TEXT ON STUDENTS' WRITING SKILL OF THE ELEVENTH GRADE SMK SWASTA YASPEND PANCA ABDI BANGSA BINJAI. *Jurnal Serunai Bahasa Inggris*, 15(1), 16-21.
- Oktavianda, W. (2020). Draw Label Caption (Dlc) Strategy to Improve Students' Writing Descriptive Text. *Channing: Journal of English Language Education and Literature*, 5(1), 36-40.
- Putri, S. C., & Sujiati, R. (2021). Mind Mapping to Teach Writing in Descriptive Text. *Darussalam English Journal*, 1, 141-154.

- Rao, P. S. (2019). The role of English as a global language. *Research journal of English*, 4(1), 65-79.
- Shi, Y., Yang, H., Dou, Y., & Zeng, Y. (2023). Effects of mind mapping-based instruction on student cognitive learning outcomes: a meta-analysis. *Asia Pacific Education Review*, 24(3), 303-317.
- Siregar, W. S., & Harida, E. S. (2021). Students' reading comprehension in descriptive text. *English Education: English Journal for Teaching and Learning*, 9(01), 77-86.
- Solusia, C. (2020). Using mind mapping strategy to improve 8th graders' abilities to summarize and retell stories. *J-SHMIC: Journal of English for Academic*, 7(1), 88-101.
- Susithra, N., Deepa, M., Reba, P., & Santhanamari, G. (2023). Coalescing Mind Maps as a Learning Aid cum Formative Assessment Tool for Effective Teaching and Learning of Computer Architecture and Organization Course. *Journal of Engineering Education Transformations*, 36(Special Issue 2).
- Wahid, J. H., & Sudirman, S. (2023). The Effect of Mind Mapping Technique on Students' Writing Skills. *Journal of Languages and Language Teaching*, 11(1), 39-49.
- Yaqin, M. A., & Al Halim, M. L. (2023). THE EFFECTIVENESS OF ROUNDTABLE TECHNIQUE ON STUDENT'S WRITING SKILLS IN DESCRIPTIVE TEXT. *E-LINK JOURNAL*, 10(2), 208-219.