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The effectiveness of mind mapping technique on students' ability in writing procedure text in the tenth grade of MA Al-falah Tolutu

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Abstract

Writing is an essential skill for students to master in English. One of the texts that students need to learn is procedure text. Procedure text is a text that describes a sequence of actions needed to achieve a goal. However, students often face difficulties in learning to write procedure texts. One common problem is difficulty in explaining the steps. This study aims to determine the effectiveness of using mind mapping techniques to improve students' ability in writing procedure texts. This study uses a quantitative approach with pre-experimental design, one group pretest-posttest design. The sample consists of 19 tenth grade students in MA Al-Falah Tolutu selected through random sampling. Data were collected through tests and questionnaires, then analyzed using paired sample t-test.The results showed an increase in the average value of students' procedure text writing skills before being given treatment (pretest) of 59.94 to 77.76 after being given treatment (posttest). Hypothesis testing obtained sig value. (p-value) of 0,000 <0.05 which means that H0 is rejected and Ha is accepted. Thus, it can be concluded that the mind mapping technique effectively improves students' ability in writing procedure texts. The questionnaire results also showed very good student responses regarding the application of mind mapping techniques in writing procedure texts.

Keywords: writing skill, procedure text, mind mapping technique

INTRODUCTION

The ability to write also delivers a critical aspect or gathers significant portions of proficiency when talking about effective compliance because it does provide the tools needed to express ideas and thoughts clearly without having the limits associated with conversations in person over even conferencing phone calls (Sotoudehnama, 2020). But writing in English as a skill is what many students really struggle with. For nearly a century, experts have asserted that writing is the most demanding of language skills: more difficult to master than listening, speaking, or reading (Badger & White, 2000). This complexity means that few can write clearly, and directly. Essays and other written commentaries require a solid foundation in language mechanics, as well as the ability to order thoughts logically. In contrast, writing is the one thing that despite being at a basic level of proficiency many find it hard to do and this needs practice even more which indicates how major this literacy skill remains so far (Hasan et al., 2021)

Because writing is difficult to learn, humans must be provided with a structured plan and the possibility of practicing until perfect (Eslava-Schmalbach & Gómez-Duarte, 2013).It is not enough to teach students the technical elements that constitute grammar and syntax; instruction in effective writing should also enable critical thinking skills (Chong, 2017) as well as the logical organization of ideas preparing writers for tasks such as this one/page layout(Dobakhti et al., 2023). Writing Practice: Through writing-based activities, like essays or reports (or even creative writing), you can get students time and activity shelf life to make it easier for them to visualize their skills down. To sharpen Moreover, feedback by offering suggestions is crucial for students to identify their strengths and weaknesses in helping improve over time with better writing skills. We can help students overcome the challenges that come with writing, and empower them to be confident and equipped communicators, by creating a safe place for learning.

According to the observation at MA Al-Falah Tolutu, there are some problems of learning English. These included, 1) students needed to narrate the sequence from step one till last. (2) English learning has less diversification, making student style lazy and boring. And to many, the root of these writing dilemmas lies in conventional approaches to teaching (Barnard et al., 2002). A teacher-centered approach is vocabulary-based rather than conceptual, meaningful, and coherent (Harmer, 2015). The trouble here is students might get tired of

going through the steps from their textbook again and again. This is where more interactive methods such as mind mapping are useful.

Studies have found that students who used mind mapping styles while writing had better performance than those who did not use a structured plan. While Mali & Timotius (2023) found that mind mapping had little effect on the success of editing, they reported significant differences between pre-writing performances based on whether students used mind maps or not. According to Marpaung (2013), mind mapping can motivate students in writing descriptive texts and interest, help the ability of making desriptive text better, increase their vocabulary & creativity also make them easier when they want to organize ideas. Likewise, Nurlaila (2013) warned not to generalize the writing of students who are taught mind mapping in a systematic and persuasive ways from those whose teaching is inactive understandable that intervention plays significant role on advance teachings. This is in line with the findings of Riyadi, Widyahening and Malaysia (2016) that students who used mind mapping techniques had better ability to write recount texts than those who did not. English teachers were advised to include the teaching of mind mapping in their writing curriculum, a skill that is essential for planning and organizing ideas found useful with written assignments. How to Apply it: This strategy is especially great for students who have difficulty with idea generation in writing classes, as a tool can be used to develop their skill of generating ideas.

Based on this research, the current study investigates: How does mind mapping help students in improving their writing? The purpose of this study is to investigate how an organizational technique that tricks the brain into being creative can enhance students' writing, in order to contribute knowledge about successful teaching strategies and add value as a whole within language pedagogy.

METHOD

This quantitative study utilized a pre-experimental one-group pretest-posttest design. The population comprised all 37 tenth grade students at MA Al-Falah Tolutu in the 2021/2022 academic year. Through random sampling, one class of 19 students was selected as the sample. Students were given a pretest to assess baseline procedural text writing skills. This was followed by treatment involving the application of mind-mapping techniques over some time. Afterward, students completed the same procedural text writing test as a posttest. Their writing was scored using rubrics assessing content, organization, vocabulary, language use, and mechanics.

Additionally, a questionnaire was administered to gauge students' perceptions of mind mapping's impact. The questionnaire had 10 items measured on a Likert scale, with responses ranging from "always" to "never". It assessed mind mapping's effect on planning, communication, creativity, problem-solving, attention, thought organization, memory, and learning efficiency. Calculated validity and reliability values confirmed this as a valid and reliable instrument. Pretest and posttest scores were statistically analyzed to determine the effect of mind mapping. Tests of normality and homogeneity ensured the data met parametric assumptions. A paired samples t-test then compared the mean scores. Outcomes with a significance value below 0.05 were considered statistically significant.

In summary, this pre-experimental quantitative study utilized tests and questionnaires to determine whether mind mapping improves tenth grade students' procedural text writing abilities. Data analysis focused on comparing pretest to posttest performance after receiving mind mapping instructions.

RESULTS AND DISCUSSION

The pre-test assessed students' baseline procedural text-writing skills. Scores ranged from 52 to 68 out of 100, with a mean of 59.94 (Table 1). Based on the set criteria, most students were in the medium performance category before treatment.

Table 1. Score of Pre-Test

Students'	Total	Average
17	1019	59,94

After implementing mind mapping techniques over several sessions, the post-test evaluated improvements. Scores increased to between 72 and 83, with a higher mean of 77.76 (Table 2). More students reached the good performance benchmark.

Table 2. Score of Post-Test

Students'	Total	Average
17	1322	77,76

The questionnaire also provided positive indications of mind mapping's impact (Table 3). Across the indicators of planning, communication, creativity, problem-solving, attention, organization, memory, learning efficiency, and holistic understanding, most respondents selected "always" or "often". Calculated percentages for each item ranged from 80.8% to 97%, falling in the good to very good categories.

Table 3. Score of Questionnaire

No	Indicator	Score	Category
1	Plan	97,0%	Very Good
2	Communicate	80,8%	Good
3	Become more creative	86,6%	Very Good
4	Solve the problem	80,8%	Good
5	Focus attention	82,3%	Very Good
6	Organize and explain thoughts	89,7%	Very Good
7	Remember better	82,3%	Very Good
8	Learn more quickly and efficiently	83,8%	Very Good
9	Practising the “whole picture”	82,3%	Very Good
10		85,2%	Very Good

Additionally, the paired samples t-test revealed a statistically significant difference between pre-test and post-test scores after receiving mind mapping instruction. The p-value was 0.000, allowing the researcher to reject the null hypothesis. This supports mind mapping as an effective technique for improving procedural writing skills.

The positive student perceptions align with previous research by Marpaung and Sinulingga (2013), who also found mind mapping helped motivate junior high students to write texts more enjoyably and creatively. Further, analysis of pre and post scores indicates the mind mapping intervention enhanced performance. Students progressed from limited vocabulary, disorganized steps, and sparse detail to successfully conveying logical procedures.

Quantitative data analysis also confirmed a significant beneficial impact of mind mapping instruction on writing procedural texts. With similarities noted across grade levels and text genres, these current findings add specifically to the literature regarding mind mapping’s potential to improve tenth grade students’ procedural text writing. Teachers are thus encouraged to consider implementing this visual strategy, which can assist students in planning and communicating procedures necessary to accomplish tasks.

In summary, this pre-experimental quantitative study utilized tests and questionnaires to determine whether mind mapping improves tenth grade students’ procedural text writing abilities. Data analysis focused on comparing pretest to posttest performance after receiving mind mapping instruction.

Discussion

The findings in this study provide clear evidence that mind mapping, as a teaching strategy enhanced students' procedural text-writing skills. Most notably, the post-test scores increased significantly; there was a prominent mean increase from 59.94 prior to training up

to 77.76 following treatment where students improved their comprehension on procedural texts and were actually able improve organizing and articulating ideas in writing better as well [21]. This progress in performance, which saw more of the pupils get "good" results on the writing wrote assessments shows significant potential for integrating mind mapping into teaching English. This is in line with the research of some studies found that student motivation, creativity was also increased by using mind-mapping techniques (Basri, 2020; Dewi, 2017; Elawati et al., 2022; Pratiwi & Hartono, 2016; Smith, 2021; "The Use of Mind Mapping to Improve Writing Skill of the Eighth Grade Students of Junior High School," 2018; Zahara et al., 2018).

In addition, the results of a questionnaire reflect further how students benefit from using mind maps. The technique influenced so many key aspects of the writing process in ways that made students score highly on a variety of measures from planning (what most prior research focused) but also creativity, organization, and learning efficiency. Students expressed that they felt more confident and better able to organize their ideas; both of these factors suggest a translation into improved writing for the post-test. This implies that mind mapping not only aids the process of writing through maintaining a strong basis but also encourages an understanding in which students can think and write more clearly making them feel better about assignments when it comes to getting into this kind of task.

Contributions The non-parametric paired samples t-test additionally validates the effectiveness of mind mapping as statistically significant differences existed between pre-and post-test scores (p=.000) thereby reducing this to chance. This compelling evidence for the impact of mind mapping on procedural text writing is readily generalizable to other stages and types of texts. This visual strategy is therefore recommended to be integrated into classroom instruction for students planning and communicating more complicated processes. The findings from this study add to the evidence that mind mapping can function as an effective tool for building writing abilities, especially in tasks demanding a clear and coherent method of organization.

CONCLUSION

In conclusion, this study provides evidence that mind mapping techniques can effectively improve students' procedural text writing abilities. Quantitative analysis of pretest and posttest scores, alongside positive questionnaire responses, showed that the mind mapping intervention enhanced 10th grade students' performance in planning, organizing, and

communicating logical steps to accomplish tasks. After mind mapping instruction over several sessions, students progressed from disorganized, sparse writing to successfully conveying procedures with vivid details. The significant increase in mean scores, from 59.94 to 77.76, supports mind mapping as a valuable teaching strategy to engage students in generating ideas and writing coherently. These findings specifically encourage English teachers to implement mind mapping, thus helping their pupils become more creative, confident, and capable writers across texts genres.

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