

The Effect of Mind Maps in Malay Language Essays on Form Four Students

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Abstract

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This research was conducted to identify the understanding of Form Four students and analyze the differences in mean achievement between the control and experimental groups on the mind map of Malay essays. This selection map was tested on 30 Form Four students at SMK Bahasa Malaysia, Saratok. Statistics were collected through the survey and quasi-experimental methods, and the peeled data was done quantitatively. The findings of this study show that the level of understanding of Form Four students is at a moderately high level because most students know the names and functions of each mind map introduced. Furthermore, the mean of post-test students taught using mind maps was higher than that taught using cooperative learning, which was a 1.8 difference. The increase in the experimental group's mean in this post-test showed that teaching Malay essays using mind maps improved student achievement in writing essays. This research can help Malay language teachers diversify their teaching techniques and help students master the writing of Malay language essays.

Keywords: Mind maps, Malay language, Essay, Achievement

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INTRODUCTION

Writing ability is one of the skills that all elementary and secondary school students are expected to have mastered by the time they graduate (Kurniaman et al., 2018; Myhill & Chen, 2020). It is also one of the components that go into teaching Malay. As part of their education, students of the Malay language are supposed to develop this ability, which is one of the talents they are intended to gain overall. Students with these writing abilities will have an easier time putting their ideas and thoughts into written form, regardless of whether or not the students choose to write more creatively or traditionally (Efendi et al., 2019; Arwin et al., 2022). Because of this, students with these writing abilities are likelier to have practiced them than students who do not have these writing skills. According to Yusof and Nazir (2011), writing is a skill that should be acquired and mastered by every student in every formal teaching, and it requires composing and writing activities as a strategy to convey ideas, information, and opinions. Writing is a skill that should be acquired and mastered by every student in every formal teaching. Writing is an essential skill that every student should be required to acquire and become proficient in as part of their formal education. It should be necessary for every student, irrespective of their education level, to cultivate and exhibit competency in the writing process (Handrianto et al., 2021; Nengsih et al., 2022). As a component of any formal

education, every student is required to study and become proficient in the art of writing. This is a rule that cannot be broken in any way.

In primary or secondary school, students need to demonstrate that they have mastered writing skills to go on to the next level of the Malay Language (BM) curriculum (Nahar & Abd-Rahman, 2018; Ibrahim et al., 2021; Mahamod et al., 2021). Otherwise, they will not be allowed to proceed. The ability to write is one of the components included in the curriculum for classes that revolve around the Malay language and the topics linked with it. As part of the curriculum for studying the Malay language, students are allowed to develop their creative potential and acquire the ability to generate. Students are given a chance to participate in this activity to acquire the knowledge necessary to use the several components of writing abilities in a way that is appropriate and accurate. A paper by Kaiser Permanente (2016) with the title "Self-Management Curriculum and Assessment Standards") Students have the opportunity to develop their writing skills to meet the requirements of the DSKP Bahasa Melayu when they use the appropriate mental tools, which makes it possible for them to become successful in both the teaching and learning of writing in the language. In addition, students have the opportunity to develop their writing skills to meet the requirements of the DSKP Bahasa Indonesia. The prerequisites for the DSKP Bahasa Melayu exam may be found here (DSKP, 2016).

There is no question that the proliferation of a wide variety of different thinking tools in the 21st century has significantly impacted the approaches that are now used in the present day for the purposes of learning and instructing. The term "thinking tools" refers to a collection of implements that, when used correctly, can make developing new ideas more organized and fruitful (Nor & Mohd-Ramli, 2000; Atmazaki & Abdurahman, 2019; Hizriani et al., 2022). Students studying Malay could discover that using a mind map as a style of thought makes it simpler for them to conceive new ideas. There are two distinct ways in which students might profit from making use of this instrument. To begin, it may assist students in organizing their thoughts in a more productive manner and well-structured for the essay they need to write. Second, it could be easier for students to recall a piece of information associated with the subject of the Malay language study they are doing.

LITERATURE REVIEW

Students' capacities for analytical and creative thinking may be significantly improved across the board via the implementation of project-based learning, which makes using mind maps a handy tool (Kuntoaji, 2018; Sasson et al., 2018; Rahman et al., 2022). Akup and Othman (2017) found that there is a statistically significant difference between the mean scores that students in the experimental group earned on the pre-test and post-test in the correlation portion of both tests administered before and after the experiment. The outcomes from the post-test were noticeably more positive than the results from the first test. The results of their study suggest that it is reasonable to conclude that using traditional methods to educate students in the art of essay writing is less effective than using I-Think mind maps to educate students in the skill of creating essays that do not adhere to a specific structure (Efriyenty et al., 2020; Ramadhani et al., 2022). This conclusion is supported by the fact that it is plausible to draw this conclusion. I-Think mind maps lent credence

to this conclusion and produced results noticeably superior to those obtained using more conventional methods.

In addition, Tonge and Mahamod (2020) discovered in their study that there was a significant difference in the percentage of student performance scores in pre-test and post-test, with the majority of students' scores increasing by a factor of two from the initial score. This research was published under The Effect of Project-Based Learning on Essay Writing Skills of Primary School Students (Khairunnisa et al., 2022; Maulida et al., 2022). The researchers reached this conclusion in their study entitled "The Effect of Project-Based Learning on Essay Writing Skills of Primary School Students." The outcomes of this research were published in a book titled The Effect of Project-Based Learning on the Essay Writing Skills of Primary School Students. The purpose of this research was to investigate the impact that project-based learning had on students' abilities to write essays. The study title was The Effect of Project-Based Learning on Essay Writing Skills, and the participants were children in elementary school. The fact that students' scores have improved by one point demonstrates that they have a deeper understanding of the content being taught and that their writing abilities are becoming more developed (Leli, 2019). In addition, this improvement in students' scores indicates that their writing abilities are improving. The findings of this study suggest that using a project-based learning approach (PBL) is likely to benefit students' degree of interest while simultaneously assisting them in developing their capacity to compose essays. The fact that the PBL was used in the research proves this assertion's validity.

RESEARCH METHOD

This study applies quantitative research to evaluate and explain data connected to the influence of mind maps on students' Malay essays in Form Four. The participants in this study are in their fourth year of high school. The students participating in this research project are in their senior year of high school. The research for this study used online survey techniques and quasi-experimental procedures, and the same approaches were also employed to derive the study's conclusions. Thirty students from Form Four at SMK Bahasa Malaysia Saratok took part in this investigation in its entirety. The people who took part came from a wide range of socioeconomic strata, including the working and middle classes. The questionnaire that was utilized was the instrument that was used to collect and analyze data, and the Statistical Package for Social Science was used to analyze the test papers that were reviewed. The data that was gathered and analyzed can be found here. The purpose of this study was to determine whether or not the use of mind maps improved the overall quality of the Malay essays written by students in Form Four.

RESULTS AND DISCUSSION

Objective 1: To Identify the Understanding of Form Four Students on Mind Maps in Malay Essays

Table 1 Students' General Knowledge of Mind Maps

No. item	Item	Scale					Mean	SD
		1(SA)	2(A)	3(M)	4(D)	5(SD)		
Frequency (people)								
Percentage (%)								
B1	I have knowledge of mind maps.	9 30.0	13 43.4	1 3.3	6 20	1 3.3	2.23	1.194
B2	I was able to identify the eight mind maps introduced.	6 20.0	16 53.3	2 6.7	1 3.3	5 16.7	2.43	1.331
B3	I have knowledge of the function of each mind map.	10 33.3	13 43.3	1 3.3	2 6.7	4 13.4	2.23	1.357
B4	The function of a double bubble map is to create a classification	6 20.0	11 36.7	2 6.7	8 26.6	3 10	2.70	1.343
Total (mean & standard deviation)							2.46	0.784

According to the data in the table, most respondents have a general grasp of mind maps that is somewhere between a somewhat low and relatively high score. As a result, the total number of people engaging in this activity is now thirteen. In addition, there were a total of 16 respondents, equivalent to 53.3% of the population, who were familiar with the eight mind maps that were presented, and there were a total of 13 respondents who were familiar with the function of each mind map. These numbers are equivalent to the percentage of the population familiar with the presented mind maps. These data points are similar to the proportion of the population acquainted with the eight mind maps provided before. Those mind maps were presented earlier. This is seen based on the overall mean value of this part B, which is 2.46, which shows that the general knowledge of respondents about mind maps is at a moderately high level, and the standard deviation has recorded a value of 0.784. This shows that the level of general knowledge of respondents about mind maps is at a moderately high level. This demonstrates that respondents have a general knowledge level about mind maps that is at a level that is between high and moderate. This shows that respondents have a general knowledge level of mind maps that falls between high and moderate levels.

Table 2 Frequency of Students Using Mind Maps

Table 2: Frequency of Students Using Mind Maps									
No. item	Questions	Scales					Mean	SD	
		1(SA)	2(A)	3(M)	4(D)	5(SD)			
Frequency (people) & Percentage (%)									
C1	I like using mind maps in Malay essays	10 33.3	9 30	4 13.3	6 20	1 3.3	2.30	1.236	

C2	I often use mind maps to find the content of Malay essays	7 23.3	8 26.7	1 3.3	8 26.7	6 20	2.93	1.530
C3	I rarely use mind maps when writing Malay essays.	8 26.7	6 20	3 10	5 16.7	8 26.7	2.97	1.608
C4	The use of mind maps made it easier for me to find the content of Malay essays.	7 23.3	11 36.7	3 10.0	7 23.3	2 6.7	2.53	1.279
Total (mean & standard deviation)							2.63	0.5

According to the information shown in the table, a total of ten respondents, comparable to 33.3% of the total, are of the opinion that using mind maps in their Malay essays would most likely be of significant use to them. After that, eight respondents, similar to 26.7 percent of the total, stated that they use mind maps regularly to determine the topic of Malay writings. This indicates that mind maps are an effective tool for this purpose. With a mean value of 2.63 and a standard deviation of 0.5, it is fair to infer that the frequency with which respondents apply mind maps in Malay essays is at an acceptable level.

Objective 2: To analyze the Mean Achievement Differences between the Control and Experimental Groups on the Malay Language Essay Mind Map

Table 3 Mean Differences between Groups and Controls in the Pre-Test.

Test	Group	Mean	SD	t-value	Sig.
Pre	Control	73.20	15.050	-4.289	0.001
	Experimental	49.93	9.375		

The data in the table show that the mean score on the pre-test for the control group is 73.20, which is significantly higher than the experimental group's score of 49.93. The experimental group reported a standard deviation of only 9.375, a significant drop from the control group's overall standard deviation of 15.050. The overall standard deviation for the experimental group was much lower than the standard deviation for the control group. The level of significance (p) was assessed to be 0.001 after the results of the t-test indicated a value in the opposite direction of -4.289. This was found to be statistically significant; hence, the significance level was deemed significant. Because of this, we could conclude that there was considerable relevance. It would seem from this gap that the performance of the experimental group and the control group in the pre-test was considerably different. The significance threshold for this difference has been set at p 0.05, and the data suggest a difference between the two groups. The original hypothesis, which claimed no difference in scores between the experimental group and the control group, was erroneous after being examined in light of these data. This has been demonstrated to be the case after the hypothesis is incorrect. The first premise says that there is no apparent difference between the performance levels of the experimental group and the performance levels of the control group.

Table 4 Mean Differences between Groups and Controls in the Post-Test

Test	Group	Mean	SD	t-value	Sig.
Post	Control	74.53	8.467	0.664	0.517
	Experimental	76.33	8.112		

Students who apply mind maps in their Malay essays have a mean score much higher than those who use a cooperative learning strategy. These findings are shown in the table below as the research results that were carried out and exhibited. The standard deviation was 8.112, and the average score on the post-test for those who had received experimental was 76.33. The control group had a lower mean value, 74.53, and their standard deviation was 8.467. Because the significant level was higher than 0.05, it may be deduced that there was no noticeable gap in post-test performance between the experimental and control groups. The significance level (p) that was determined to have been present in this investigation was found to be 0.517, implying that there was not a significant significance level. It has a value of 0.664; this is its value. The hypothesis that there will not be a significant difference in post-test accomplishment between the experimental group that will be using mind maps and the control group that will be utilizing cooperative teaching is accepted. The experimental group will be using mind maps. Ho2 claims there would not be a discernible gap between the two outcomes.

When students are obliged to write essays, and mainly when they are being assessed on their information, they need to learn how to think fast and effectively, which means they must have a complete comprehension of mind maps (Sicam et al., 2021; Handrianto et al., 2022). The study's outcomes make it very evident that children need to have this knowledge to learn how to think rapidly, which is why this is the case. Because students are graded based on the essays they write, they must exhibit their capacity to do so while they are being evaluated. The children must be able to do so as it will help them do well on the assessments they will be required to take. This is because if youngsters can swiftly think, the answers to issues they develop will be suitable for responding to the questions posed to them. This has come about due to the realization that for children to think rapidly, they need to be able to think quickly (Sarte et al., 2021; Adam et al., 2022). The knowledge that young people will be able to think fast if they already can think quickly has led to this development, which has caused this to come about due to the realization mentioned before. There is a possibility that the increasing use of mind maps is at least partially responsible for the development in comprehension linked with mind maps in Malay literature. This idea is reinforced by the fact that it has been shown that using mind maps may increase one's understanding. This makes perfect sense when one considers that mind maps have been shown to improve comprehension. Because this is one of the pillars the argument is based around, it is essential to keep this in mind. In addition, it is of the utmost importance for people who are responding to not only be familiar with the term "mind map," but also with the primary purpose of its usage in its application. This is because the primary purpose of its usage in its application is to help people organize their thoughts. This is because individuals must react in some way. One of the reasons the students are given the project is that it may assist them in developing their capacity for more

rapid cognition. Because of this, the students are given the work. Students who are given essay topics to react to may benefit significantly from being able to think more quickly if they are obliged to do so. This is because they will have more time to formulate their responses. These findings are consistent with the findings gained from the study that was carried out by Mingan and Mahamod (2016).

The authors of that research concluded, as a result of their results, that an enhanced level of student understanding of mind maps may lead to an increased level of educational quality. One of the conclusions they reached was that this result was one of the discoveries that contributed to their findings. This verdict was arrived at as a consequence of the investigation conducted. How effectively students can modify the material of a given essay into a form appropriate for representation by a mind map is a good indicator of how well they comprehend the goal of each mind map and the mind map itself (Pernantah et al., 2022). Mind maps are a kind of visual diagram that may be used to organize and present information graphically. Students must reformat the information in an essay into a format suitable for presentation on a mind map to complete this task successfully.

The research findings also showed that the quality of the student's performance on the post-test was affected by the employment of various methods for the production of essay topics. The study yielded data that lent credence to this assertion. This was shown by the fact that the results of the research. There is evidence to support the assertion that this is the case. When writing an essay, employing mind maps might make creating new ideas more straightforward, which is an essential component? This is since producing new ideas could become more accessible. Students who find that utilizing mind maps to explore their thoughts also assists them in arranging those ideas into a coherent essay structure may benefit from utilizing mind maps to accomplish both of these goals simultaneously by using mind maps. Students who find that utilizing mind maps to explore their thoughts also assists them in arranging those ideas into a cohesive essay structure can benefit from utilizing mind maps. The findings of this experiment are consistent with the interpretations that Yusop and Mahamod (2016) describe from their study. They discovered that students who were taught using mind maps had a better tendency to convey their thoughts and create content when compared to students who were taught using traditional methods. This was because mind maps facilitate the visual representation of information. These pupils exhibited this characteristic when compared to children who were taught using more conventional methods. The findings they gathered back up this conclusion, which makes perfect sense given the circumstances. In light of the facts presented above, the results they gathered to back up their conclusion make conceptual sense.

Along with the passage of time and the most recent format of form four essays, it is seen as possible for this mind map to improve student achievement because it contains visual aspects that help students remember the contents of essays that have been constructed and help students process grammatical sentences (Apreasta, 2018; Banseng et al., 2021). This is due to the fact that this mind map contains visual aspects that help students remember the contents of essays that have been constructed. This is due to the fact that this mind map has visual components that assist pupils in remembering the topics of essays that have already been created. This is a consequence of the fact that this mind map consists of visual components

that aid students in recalling the subjects of essays that have previously been written to them. This is because the particular mind map in question has several different visual components, making it more straightforward for students to remember the topics of essays they have previously written. Another recent change is that the format of the essays that students in form four are required to create has been altered; this represents yet another new development. These essays are ones that the students are supposed to compose. According to the findings of this research project, using mind maps by students working on the Malay essay assignments that they are required to complete can help them get higher grades. This follows logically and unavoidably from the assertion made before.

CONCLUSION

The outcomes of this study suggest that utilizing this mind map to elevating students' levels of achievement in Malay essay writing is an appropriate use for applying this mind map. Students can become skilled in KBAT to generate ideas, which is a crucial talent since ideas are essential to any creative writing. Students also have the opportunity to become proficient in KBAT in order to develop their creative writing skills. For students to develop their thoughts, they have the opportunity to become knowledgeable about KBAT. In addition, the visual components included in the mind map can stimulate students' creative thinking, which may subsequently be used for the generation of ideas for writing assignments. This is because children are more likely to use visual cues than verbal ones while writing. The reason for this is that visual cues are easier to remember. This is because when it comes to communicating their thoughts, pupils are far more likely to do so via the use of visual cues than they are through the use of verbal signals. As a consequence, the findings of this research imply that mind maps ought to be utilized in the instruction of additional Malay languages to broaden the scope of their advantages, particularly regarding enhancing students' comprehension of instructional material. This recommendation is made as a result of the fact that the use of mind maps is beneficial.

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