Original Research Article

THE INFLUENCE OF THE CONCEPT MAP MODEL ON STUDENTS' ABILITY TO WRITE EXPLANATION TEXTS FOR CLASS VII SMP N 7 JAMBI CITY

Comment [J1]: Explanatory

Abstract

The concept map model is an innovative learning model that has been empirically proven to have a positive impact on student learning outcomes. This research aims to determine the effect of implementing the concept map learning model on students' ability to write explanatory texts. This research used a quasi-experiment, which was carried out by comparing two classes that were given different treatments, namely the experimental class and the control class. The results of this research show that the concept map learning model has a positive effect on students' ability to write explanatory texts. The test results show a value of 0.00, which means less than 0.05 (P-Value/Sig= 0.00 <0.05). Thus, there is a significant difference in student learning outcome scores in the experimental class and the control class. Therefore, the application of the concept map learning model has a positive influence on students' learning outcomes in class VII explanatory texts at SMPN 7 Jambi City. The research has implications for the need to implement the concept map learning model in developing explanatory text writing skills for junior high school students in the future is supported by this research.

Comment [J2]: is supported by this research

Keywords: Learning Model, Concept Map, Explanatory Text

1. INTRODUCTION

Comment [J3]: better start from general ideas. Like from language then language skills and then you may come to your topic – writing

Writing is a very complex and much-needed skill. According to Djatmika et al. (2022) and Laila (2023), writing skills are an aspect of language skills that are really needed, especially in expressing ideas, thoughts, and feelings through essays, both fiction and non-fiction. Apart from that, writing is expressing the contents of one's thoughts in written or visual form. Writing activities require someone to be able to use correct spelling with the right vocabulary and effective sentences in developing paragraphs. Therefore, writing is an activity that requires high-level thinking skills, namely creative thinking and critical thinking. Parr (2022) and Hendra et al. (2023) stated that one of the activities that requires critical thinking skills is writing.

In the scope of Indonesian language learning, one of the writing activities that is very important to learn is writing explanatory texts. Explanatory text is text that explains a series of events in detail related to who, when, where, why, and how. For this reason, Apriyani (2019) explains that writing explanatory texts is not easy; according to her, to write explanatory texts, a person must be able to know the process of occurrence or formation of a natural or social phenomenon around them. The summary text aims to explain each step of the process (how) and provide reasons (why). It is in line with the explanation of Bidzikrillah (2023) and Anggeraeni et al. (2023) that explanatory texts contain processes related to natural, social, scientific, cultural, and other phenomena related to the questions "why" and "how" of a phenomenon. The aim is to explain the formation process or activities related to the phenomenon under discussion, which has a structure, namely title, opening, main and closing. At the junior high school level, explanatory texts explain natural, social, cultural and other events in a factual and actual manner. In this phase (junior high school students), students are taught to write explanatory texts using the independent Curriculum. Explanatory text that Curriculum includes learning outcomes, namely that students are able to express ideas, thoughts, opinions, directions, or messages in writing for different purposes in a logical,

critical, and creative way. These learning outcomes can be used as a reference for teachers to see the extent of students' writing abilities because the final result of this learning is writing.

In the Merdeka curriculum, the initial competency of this explanatory text material is that students are able to practice conveying information systematically, structured and creatively by writing simple explanatory texts correctly and accurately. It is in line with the explanation of Anggeraeni et al. (2023) that writing explanatory text is one of the essential competencies that students must achieve so that students are more creative, innovative and expressive in expressing ideas or ideas. To achieve competencies in the Curriculum, teachers as subjects must be able to determine the most effective learning model in the learning process. The suitable learning model encourages the creation of a pleasant classroom atmosphere and creates a positive impression for students. This pleasant situation and positive impression have the potential to encourage students to absorb and understand the learning provided more quickly.

One learning model that has been proven effective in creating pleasant situations and positive impressions is the concept map model. Learning with the concept map model is very good for teachers to use to improve students' memory and strong understanding of students' concepts, and can also increase students' creativity. Khasanah (2019) and Campbell et al. (2022) stated that when learning using concept maps, learning becomes meaningful because new knowledge or information and the structured knowledge that students already have are connected so that students can absorb it more easily. Furthermore, Pierce (2010) and Subki (2019) stated that concept maps not only describe essential concepts but also make connections between these concepts. In connecting these concepts, two principles can be used, namely the progressive differential principle and the integrative adjustment principle. Iwan (2004) explains that a concept map is a creative exploration carried out by an individual about a concept as a whole by presenting subtopics and ideas related to the concept in one complete presentation on a piece of paper through the depiction of symbols, words, lines, etc. and arrows.

Learning using the concept map model is very good for teachers to use to improve students' memory and strong understanding of students' concepts, and can also increase students' creativity. Silva et al. (2022) and Iwan (2004) explain that a concept map is a creative exploration carried out by an individual about a concept as a whole by presenting subtopics and ideas related to the concept in one complete presentation on a piece of paper through depicting symbols, words, etc. words, lines and arrows. Apart from that, Fitriana (2019) and Yarmohammadi et al. (2023) also stated that learning to compose explanatory texts requires methods and media according to students' needs.

Empirically, research results prove that learning using concept maps is efficacious in improving student learning outcomes and helps awaken students' imagination and creativity (Agung et al., 2022). Other research results also show that the narrative writing abilities of students who use concept maps are better than the learning outcomes of students who follow conventional learning models (Akbar & Muslihan, 2021). These findings suggest that the concept map learning model has a significant influence on the results of students' narrative writing abilities, it is because by applying the concept map learning model in the process of learning to write narratives, it is easier for students to understand, develop, and vary the concepts they describe. Further research conducted by Hadijah (2022) stated that success in writing is influenced by several factors, including the ability to sort vocabulary. Thus, teachers can use the concept map learning model to improve the ability to write explanatory texts for junior high school students.

The results of observations and interviews with one of the Indonesian language teachers at SMP N 7 Jambi City, the results in the Indonesian language learning process, especially related to student's ability to write explanatory texts, in general, students still have difficulty understanding the procedures for writing correct and appropriate explanatory texts with the rules of writing. One of the contributing factors is that during the Indonesian language learning process, especially in explanatory texts, teachers have yet to use innovative learning models. In the learning process in general, teachers more often use conventional learning models that are oriented towards lecture activities. Hence, the ability to explore students' abilities still needs to be improved.

Based on these problems, research needs to be carried out systematically by implementing innovative learning models. The innovative learning model intended in this research is the concept map model. It is based on the assumption that using the concept map model can make students achieve success in learning and can develop the potential stored within them so that students are motivated to write texts,

Comment [J4]: source

Comment [J5]: If it so. What are you going to research?

Comment [J6]: Repetition

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Comment [J8]: Your research objective is THE INFLUENCE OF THE CONCEPT MAP MODEL ON STUDENTS' ABILITY TO WRITE explanatory text.Given that you are discussing the outcomes, it is necessary to determine what you intend to examine.Instead, it is advisable to align your discoveries in a parallel manner.

Comment [J9]: Instead, it is advisable to align your discoveries in a parallel manner.

Comment [J10]: What are these problems?

especially explanatory texts. The aim is to help students become more adept at writing texts because students need attractive models to increase their enthusiasm for learning and foster their motivation in writing, especially in writing explanatory texts.

2. RESEARCH METHODS

In this research, a quasi-experiment or quasi-experiment (Quasi-experiment) was applied. A quasi-experiment is a study that is very similar to using a natural experiment (Lai et al., 2022). This research aims to directly test the influence of one variable on another until it reaches the stage of testing the hypothesis. In this research, there is a control group or class using two variables, namely the independent variable (Concept Map Model) and the dependent variable (Ability to write explanatory text).

The approach used in this research is quantitative. Thus, data processing from the results of this research will be carried out statistically, and the results will be in the form of numbers (Hodge, 2020). The results of these calculations will later be used to answer the objectives of the research. The sample in this study consisted of 64 class VII students, consisting of classes VII C and VII G. Class VII C was the control class, namely the class that used the conventional learning model. Class VII G was used as the experimental class, namely the class that received the concept map model treatment. The concept map model is a creative learning model that can make it easier for students to write.

The data collection technique in this research was carried out by testing, namely conducting a pretest in each control class and experimental class. After carrying out the initial test, each class carried out different treatments; namely, the control class used the conventional model, and the experimental class used the concept map model. After that, a final test (post-test) was carried out in each class to see the final results of each class. In this case, documentation is also used as evidence of research results.

The data analysis technique was carried out using SPSS, which aims to test the research hypothesis that has been determined. Meanwhile, the difference in average learning outcomes for writing explanatory texts in the control class and the experimental class was tested using the t-test. Complete data analysis was carried out in 3 stages, namely describing the data, prerequisite/preliminary analysis, and hypothesis testing. This research was conducted at SMP N 7 Jambi City, which is located on Jln. General A. Talib. Simpang IV Sipin No. 76, Kec, Telanai Temple, Jambi City. Apart from that, the research will be carried out in November 2023 or during the odd semester of the 2023/2024 academic year.

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Comment [J13]: Tense

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Comment [J15]: How did you select?

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3. RESULTS AND DISCUSSION

Researchers carried out two stages of research, namely the pretest and post-test stages. The pretest is a test carried out before treatment, which is given to class VII C as the control class and class G as the experimental class to receive comparable treatment. The pretest and post-test that had been given to both classes were then calculated. The experimental class, before the treatment (pretest), had an average score of 41; after being given the treatment, the average score increased to 78, while in the control class, the average pretest score was 33, and after being given material to write explanatory text using the model conventional post-test average score increased to 50, for more details can be seen in Table 1:

Table 1. Statistic Test in experiment and control Group

Statistics					
		Pretest (Experiment	Posttest (Experiment)	Pretest (control)	Post-test (control)
N	Valid	32	32	32	32
	Missing	0	0	0	0
Mean		41.6406	78.3594	33.9063	50.5469
Median		42.5000	77.5000	35.0000	50.0000
Mode		47.50	77.50	32.50	50.00

Std. Deviation	8.24546	6.76833	7.29387	7.20479
Variance	67.988	45.810	53.201	51.909
Minimum	22.50	65.00	15.00	35.00
Maximum	62.50	92.50	47.50	65.00

The results of calculations, which also used SPSS version 25 for data after being given treatment (post-test) in the experimental class using the concept map learning model, showed that the number of valid samples was 32 samples, the average score was 78, the middle value = 77, the standard deviation was 6.76 and a minimum score of 65, a maximum score of 92. Meanwhile, for post-test data in the control class, the number of valid samples was 32 samples. The average score is 50, the middle score = 50, the standard deviation is 7.20, the minimum score is 35 and the maximum score is 65. The hypothesis test in this study aims to determine the effect that the application of the concept map learning model has on students' ability to write explanatory texts in class VII of SMPN 7 Jambi City. The analysis used was the t-test with the help of SPSS version 25 software.

Table 2. N Gain Score data

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
N-gain_ex	32	.33	.88	.62,61	.11594
N-gain_ctr	32	.04	.48	.24,72	.10871
Valid N (listwise)	32				

Based on the table above, the average Gain Score value for the experimental class is 62.61%, which is included in the quite effective category. In comparison, the average Gain Score value for the control class is 24.72%, which is included in the ineffective category.

Table 3. Paired Sample T-Test Results

Paired Samples Test

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Pretest (Exp) - Posttest (Exp)	-36.718	9.449	1.670	-40.125	-33.311	-21.982	31	.000
Pair 2	Pretest (Ctrl) - Posttest (Ctr)	-16.640	8.627	1.525	-19.751	-13.529	-10.910	31	.000

Based on the results of the paired sample t-test, it can be understood that the pretest and post-test scores of the experimental Group obtained a significance value of 0.000, which is smaller than alpha 5% (0.05), which means rejecting Ho and accepting Ha or it can be concluded that there is an influence of using the concept map model on the results. The student's ability to write explanatory text for class VII

SMPN 7 Jambi City. Apart from that, the pretest and post-test scores of the control group obtained a significance value of 0.000, which is smaller than alpha 5% (0.05), which means rejecting Ho and accepting Ha, or it is concluded that there is an influence of using the concept map model on the results of students' ability to write class explanatory texts. VII SMPN 7 Jambi City.

Discussion

Based on the hypothesis testing that has been carried out, the average score of students on the post-test taught using the concept map learning model is higher than the student score on the post-test using the conventional learning model. It happens because the concept map learning model is more focused because the teacher has first determined a description of the explanatory text that the students are working on. The research results are also in line with the explanation of Betz et al. (2022) and Fitrianingsih et al. (2020) that learning using concept maps has a practical effect on student learning outcomes.

In the learning process, students who were taught in the experimental class using the concept map model were much more active and looked very enthusiastic and focused in carrying out the tasks given by the teacher because the teacher used a model that had never been used by the teacher before. This explanation is in line with the research results of Yuliza et al. (2022), who found that the use of concept maps in learning can increase students' learning activities by an average of 67.23%. The control class that used the conventional learning model seemed less enthusiastic and needed help with doing the assignments given by the teacher.

Apart from the learning atmosphere, the scores obtained from the two classes also have differences, based on the average post-test score in the experimental class, which is 78, greater than the average post-test score in the control class, 50. The highest score obtained by students in the experimental class was 92, which is greater than the highest score in the control class, which was 65. These results are in line with the results of research from Akbar and Muslihan (2021), which state that the ability of students who use concept maps to write narratives is better than the learning outcomes of students who follow conventional learning models.

These findings suggest that the concept map learning model has a significant influence on the results of students' narrative writing abilities. It is because by applying the concept map learning model in the process of learning to write narratives, students will more easily understand, develop and vary the concepts they will explain. When using the concept map learning model, students are more structured and find it easier to find ideas which are then developed into an explanatory text. It is proven by the average post-test learning result score for the experimental class, which uses the concept map learning model, which is higher compared to the average post-test result score for the control class, which still uses the conventional learning model.

Based on the post-test, it is known that the average learning outcome for the experimental class is 78, and the average learning outcome for the control class is 50, so it can be concluded that the average learning outcome for the experimental class is 28, more significant than the control class. From the Independent Sample test table, the significance value is less than 0.05 ($p=0.00<0.05$). There is a significant difference in student learning outcome scores in the experimental class and the control class.

Testing the hypothesis by calculating the Independent Sample t-test, it is known that the difference in the average increase in the experimental Group is 36.72, while the difference in the average increase in the control class is 16.64, so it can be seen that the increase in the experimental learning outcome score is 20.08 more significant than with the control class. The significance value obtained is also less than 0.05 ($p = 0.00 < 0.05$), so it can be stated that there is a significant influence in increasing student learning outcomes scores in the experimental Group, which uses the concept map learning model, and the control group, which uses the model conventional learning, so it can be concluded that Ha is accepted and Ho is rejected.

Based on the research results obtained in this study, there is a significant influence in increasing student learning outcomes scores in the experimental Group that uses the concept map learning model compared to the control group that uses the conventional learning model. So, these results can be used as a reference for teachers, especially Indonesian language teachers, to be able to apply the concept map learning model to essential writing competencies, especially writing explanatory texts. Thus, the impact of

the results of this research will make it easier for teachers to provide students with an understanding of how to create explanatory texts. More broadly, students become happier writing explanation texts when they have found a suitable model. It will familiarize students with writing ideas and also make them sensitive to phenomena in the surrounding environment. Especially in the current digital and social media era, the ability to write and find ideas is essential to becoming a content creator.

From the discussion presented above, suggestions or input can be given to complete and become a reference for further research from this research. Research topics that can still be developed in other types of text writing besides explanatory text. Then, the number of samples taken in the research can be even more significant so that it is greater in presenting or representing the entire population. It will further confirm the research results obtained because the samples taken are very representative of the population.

In this research, the researcher specifically chose explanatory text as the research object by testing the effect of the concept map learning model on the ability to write explanatory text. So, the scope of the research only focuses on writing explanatory texts. Meanwhile, in KD, writing is not only explanatory text; there are still other types of text such as news text, scientific work text, exposition text, and writing other texts, so in general, this is a weakness found in this research.

4. CONCLUSION

Based on the problem formulation and research hypothesis proposed, as well as research results based on data analysis and hypothesis testing, it can be concluded that the results of the independent sample t-test (experimental post-test and control post-test) obtained a significant value of less than 0.05, namely P -Value/Sig= 0.00<0.05. Thus, Ho is rejected, and Ha is accepted; in other words, there is a significant difference in student learning outcome scores in the experimental class and the control class. So, the application of the concept map learning model has a positive influence on students' learning outcomes in class VII explanatory texts at SMPN 7 Jambi City.

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