

MIND MAPPING BASED JOYFULL LEARNING TO INCREASE WRITING SKILL

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ABSTRACT

This study aims to find out the differences in writing skills in elementary schools by using Mind Mapping based joy full learning models and determining the effectiveness of using Mind Mapping based joy full learning models in Indonesian writing skills. This research method is included in experimental research, which takes two groups as research samples. A quasi-experimental study was conducted on 30 elementary school students randomly assigned to the experimental or control group. The data collection method used is the writing skill test method. Before giving the writing activity, a pre-test was carried out. It continued the writing activity by using the experimental group's mind mapping model based on joyful learning. At the same time, the control class did not receive treatment using this model. Next, a post-test was conducted in both groups to determine the effectiveness of the joyful learning-based mind mapping learning model. The data analysis techniques were validity, reliability, normality, homogeneity, and t-test. Data analysis used the Independent Sample T-Test technique. The Independent sample t-test showed that the experimental group obtained a higher mean score than the control group. The results of this study indicate that $T\text{- arithmetic: } 2.354 > T\text{-table: } 2,000$. It can be concluded that the teaching system using the Mind Mapping-based Joy full learning models was better than those that did not use the Mind Mapping-based Joyful learning models. The results of the data analysis are Mind Mapping-based joy-full learning models effectively teach Indonesian writing skills in elementary school. The recommendation of this research is for further research to modify the mind mapping learning model based on joyful learning to be more effective in improving writing skills in elementary school students.

Keywords: joyful learning; mind mapping; writing

INTRODUCTION

Writing is one of the four language skills needed to improve the quality of Indonesian language learning. With writing skills, it is hoped that students can express their ideas, thoughts, and feelings in writing in Indonesian language learning. The problem writing activities in Indonesian language learning, there are still many students who think learning to write is less exciting due to difficulties in determining main ideas and developing them into unified and complete essays. Also, learning to write Indonesian has not been implemented optimally by the teacher, and the teacher is more focused on giving description questions on student worksheets. In writing activities, the teacher has not maximally used techniques, strategies, and media in writing activities in Indonesian language learning. Sometimes, students feel bored, bored and not interested



in practicing continuously. So it causes many students to find it difficult to brilliant their ideas and creative thoughts in writing.

Indonesian language learning aims to make students able to master the language orally and in writing. Still, the reality in the field is beyond what is expected. Based on the observations found in elementary school, there are still students who cannot write words and sentences written by the teacher on the blackboard neatly and correctly. Some students have not been able to combine writing letters, and some have not been able to write words correctly and correctly and are not enthusiastic about writing. So many students have not finished. The minimum completeness score in elementary school is 65. The low activity and student learning outcomes need to be improved. One way is to change the teacher's learning process. If so far, the learning process is still teacher-centered, it is necessary to apply more fun learning, different from before. The learning process must be able to increase students' creativity in solving problems, especially the issue of improving the ability to write words and sentences correctly and correctly in elementary school students. The second problem in learning to write, especially essays, is that elementary school students still face many obstacles and difficulties when carrying out writing lessons. Constraints and issues that often arise in learning to write lie in sentence structure errors, discrepancies between titles and themes, unclear storylines and inappropriate character traits, paragraph incoherence, use of punctuation marks, and a very long writing time Essay.

Learning to write is a cognitive activity that is very difficult for students to do due to several factors. The factors that influence here are the factors of student interest in participating in learning to write in class.¹² In writing activities, students always experience difficulties. They do not understand the theme to be written which results in students being unable to develop their story ideas, and the resulting writing is not good.³⁴ Also, in writing, students often experience difficulties in structuring language or

¹ Muhammad Fared Dar and Imran Khan, "Writing Anxiety Among Public And Private Sectors Pakistani Undergraduate University Students," *Pakistan Journal of Gender Studies* 10, no. 1 (2015): 157–72, <https://doi.org/10.46568/pjgs.v10i1.232>.

² Bunyamin Celik, "Developing Writing Skills Through Reading," *International Journal of Social Sciences & Educational Studies* 6, no. 1 (2019), <https://doi.org/10.23918/ijsses.v6i1p206>.

³ Shahrina Md. Nordin and Norhisham bt. Mohammad, "The Best Of Two Approaches: Process/ Genre- Based Approach To Teaching Writing," *The English Teacher*, 2017, 11.

⁴ Annika Agélii Genlott and Åke Grönlund, "Improving Literacy Skills through Learning Reading by Writing: The IWTR Method Presented and Tested," *Computers and Education* 67 (2013): 98–104, <https://doi.org/10.1016/j.compedu.2013.03.007>.

sentences so that the results obtained by the paper produced by students are not as expected.⁵ The learning strategies or techniques applied by the teacher in learning to write appear to be less effective because they do not contribute to the development of students' writing skills. Most of the students experienced difficulties in arranging their ideas into well-organized written works.⁶⁷ Writing skills are active, productive, and expressive skills. Although in reality writing skills are classified as complex language skills compared to other language skills. The students are not able to develop good paragraphs during learning to write.⁸ To achieve optimal results in writing assignments, the students need strong comprehension skills that involve grammar, vocabulary, conceptions, and other parts of language learning. Writing is not easy, but not as difficult as many students imagine.⁹¹⁰ Writing has not received the attention it deserves in school. Students have not been taught to make ideas flow on paper.¹¹¹² One of the efforts that must make is that the teacher conducts the learning process by using interesting and innovative media so that writing learning activities can be effective and increase. In addition, students can have enthusiasm for writing essays.

In the last ten years, several studies have investigated the challenges faced by students and teachers in teaching writing in primary schools. Therefore, we must carry out further research to find out how students solve the problems of learning to write in class. Based on the problems in learning to write, the researcher wanted to research to

⁵ Jack M. Chokwe, "Factors Impacting Academic Writing Skills of English Second Language Students," *Mediterranean Journal of Social Sciences* 4, no. 14 (2013): 377–83, <https://doi.org/10.5901/mjss.2013.v4n14p377>.

⁶ Melor Md Yunus and Chan Hua Chien, "The Use of Mind Mapping Strategy in Malaysian University English Test (MUET) Writing," *Creative Education* 07, no. 04 (2016): 619–26, <https://doi.org/10.4236/ce.2016.74064>.

⁷ Syeda Saima Ferheen Bukhari, "Mind Mapping Techniques to Enhance EFL Writing Skill," *International Journal of Linguistics and Communication* 4, no. 1 (2016), <https://doi.org/10.15640/ijlc.v4n1a7>.

⁸ David R Byrd, "Putting the Writing Process into Action in the L2 Classroom: Pre-Writing Techniques That Work," *The Journal of Language Learning and Teaching* 1, no. 1 (2016): 64–77.

⁹ Chenrong Han, "The Effectiveness of Application of Writing Strategies in Writing Instruction," *Journal of Language Teaching and Research* 8, no. 2 (2017): 355, <https://doi.org/10.17507/jltr.0802.19>.

¹⁰ Abderrahmane Babni, "Teaching Writing: From Theory to Practice," *International Journal of Science and Research (IJSR)* 7, no. 10 (2018): 490–94, <https://doi.org/10.21275/ART20191562>.

¹¹ Darsono Darsono, Winarno Winarno, and ST. Y. Slamet, "The Need Textbook Writing of Children's Story Based on Character Education," *International Journal of Educational Research Review* 3, no. 2 (2018): 1–8, <https://doi.org/10.24331/ijere.391780>.

¹² Adnan Oflaz, "The Effects of Anxiety, Shyness and Language Learning Strategies on Speaking Skills and Academic Achievement," *European Journal of Educational Research* 8, no. 4 (2019): 999–1011, <https://doi.org/10.12973/eu-jer.8.4.999>.

improve students' writing skills by applying a joyful learning-based mind mapping model. Mind mapping based on joyful learning is a learning model that combines mind mapping learning with joyful learning. Joyful learning is a fun learning atmosphere that cannot be generalized and is a general recipe for all teachers, especially in elementary schools, in creating a learning environment.¹³ Joyful learning is an adjective of joy which is the cause of happiness in the learning process in the classroom, and fun learning is closely related to the human brain.¹⁴¹⁵ Fun learning itself is defined as learning that makes students feel comfortable and enjoy the learning process.¹⁶¹⁷ Joyful learning is a happy perception that students have during the learning process, and in the learning process, it has a positive influence on student learning motivation.¹⁸ Joyful learning can form mentally healthy and create a pleasant learning environment as a result, and students can enjoy learning so that meaningful learning is made for students. The teacher's role in joyful learning is to create a learning environment that supports various learning media.

Mind mapping uses both sides of the brain so that processing productivity will increase, which translates into more excellent retention. Mind mapping is a powerful tool that represents any information in the form of a visual framework. Using words, pictures, and numbers and a person only needs keywords, curved branches, color, and imagination to create a mind map.¹⁹ A mind map is an outline in which the main categories emanate from the central image, and smaller categories are described as branches of the larger branches.²⁰ Mind Mapping based Joyful learning models has the

¹³ Junjie He et al., "A Study on the Effect of Joyful Learning Application upon Undergraduate English Vocabulary Learning," *2017 International Conference of Educational Innovation through Technology (EITT)*, 2017, 288–92.

¹⁴ Judy Willis, "The Neuroscience of Joyful Education," 2008.

¹⁵ Soetam Rizky Wicaksono, "Joyful Learning in Elementary School," *International Journal of Theory and Application in Elementary and Secondary School Education* 2, no. 2 (2020): 80–90, <https://doi.org/10.31098/ijtaese.v2i2.232>.

¹⁶ S. Anggoro, W. Sopandi, and M. Sholehuddin, "Influence of Joyful Learning on Elementary School Students' Attitudes Toward Science," *Journal of Physics: Conference Series* 812, no. 1 (2017), <https://doi.org/10.1088/1742-6596/812/1/012001>.

¹⁷ Anggoro, Sopandi, and Sholehuddin.

¹⁸ Esma Buluş Kirikkaya, Şebnem İşeri, and Gurbet Vurkaya, "A Board Game about Space and Solar System for Primary School Students," *Turkish Online Journal of Educational Technology* 9, no. 2 (2010): 1–13.

¹⁹ Anna Buran and Andrey Filyukov, "Mind Mapping Technique in Language Learning," *Procedia - Social and Behavioral Sciences* 206 (2015): 215–18, <https://doi.org/https://doi.org/10.1016/j.sbspro.2015.10.010>.

²⁰ Budd, J. W. (2004). Mind Maps As Classroom Exercises. *The Journal of Economic Education*, 35(1), 35–46. <https://doi.org/10.3200/JECE.35.1.35-46>.

opportunity to improve students' writing skills in Indonesian language learning. Still, Mind Mapping-based Joyful learning models have not been used in Indonesian language learning. The steps for a Mind Mapping based Joyful learning models are as follows; (1) Students are divided into small groups and given discussion themes, (2) students compile vital points of the topic to be studied on a sheet of white paper in the shape of a tree with branches, (3) Students are invited to complete the game (ice baker) on the discussion material; (4) Students demonstrate and present in front of the class. This paper will review a study on mind mapping applications based on joyful learning in Indonesian learning.

Therefore, further research is needed in exploring the advantages and challenges of the Mind Mapping Based Joyful Learning model in learning Indonesian. This study aims to determine the effect of using the project-based learning model on Indonesian writing skills in elementary schools. So, the research question is formulated as: Is there any effect of using the Mind Mapping Based Joyful Learning model on Indonesian writing skills in elementary schools?

RESEARCH METHODS

This research was a quasi-experiment involving the experimental and control classes. The research design used was experimental, which was carried out using a posttest-only control group design. Participants in this study were 60 (35 female, 15 male) male and female students from primary schools in Indonesia. The sampling technique is a sampling technique. The sampling technique used in this study is saturated sampling. Saturated sampling is a sampling technique which all members of the population are used as samples. Data collection techniques used in this study include observation, documentation, and test. The data analysis technique in this study used the normality test, homogeneity test, and T-test. The T-test is used to test the pretest and posttest values in the same group. The homogeneity test aims to determine whether the data obtained has the same variance or not. The normality test aims to see whether the data is normal or not. The data analysis technique used a Quantitative design to see the difference in writing skills between the experimental class and the control class was a t-test. The data in this study included data on pretest scores and post-test scores in the experimental and control classes to see the differences in the students' writing skills

between the implementation of Joyful learning-based Mind mapping Models with the implementation of conventional learning models. Writing is a language skill that is used to communicate in the absence of face-to-face contact with other parties. Therefore, writing exercises are needed for students to improve writing and develop their creative and story ideas in learning writing in class.

RESULT AND DISCUSSION

The results show that using Joyful learning-based Mind mapping Models to writing skill increased. The details are described below:

a. Writing Skills Data of Control Class

The control class is a class that is taught using the discussion and lecture learning model. Collected the pre-test data before giving the material. The number of items used in the pretest was six questions with the research subjects in the control class as many as 30 students. The details are explained below:

Table 1.
Post-test Score of Indonesian Writing Skills in Control Class.

No.	Interval			Frequency	Percentage
1	24,5	-	25,7	1	3,3%
2	23,2	-	24,4	1	3,3%
3	21,9	-	23,1	7	23,3%
4	20,6	-	21,8	5	16,7%
5	19,3	-	20,5	4	13,3%
6	18,0	-	19,2	12	40,0%

The calculation results show that the frequency distribution of the post-test scores for the students' writing activity in Indonesian in the experimental class, the total number of classes is 6 with a class length of 4.7.

b. Writing Skills Data of Experiment Class

The experimental class is a class that is taught using a discussion and lecture learning model. The pre-test data were collected before giving the material. The number of items used in the pretest was 6 questions with the research subjects in the control class as many as 30 students. The details are explained below:

Table 2.
Post-test Score of Indonesian Writing Skills in Control Class.

No.	Interval			frequency	Percentage
1	35,0	-	36,3	3	10,0%
2	33,6	-	34,9	6	20,0%
3	32,2	-	33,5	5	16,7%
4	30,8	-	32,1	11	36,7%
5	29,4	-	30,7	2	6,7%
6	28,0	-	29,3	3	10,0%

The calculation results show that the frequency distribution of the post-test scores for the students' writing activity in Indonesian in the experimental class, the total number of classes is 6 with a class length of 5,9.

c. Homogeneity Test

The results of the homogeneity test analysis of the experimental and control class data distribution during the pre-test and post-test. The details are explained below:

Table 3.
Homogeneity Test

No	Category	Df	F- arithmetic	F _{table}	P	Conclusion
1	Pre-test	1:57	0.119	4.01	0.732	The data is Homogeneous
2	Post-test	1:57	0,076	4.01	0.775	The data is Homogeneous

The data above explains that the F-arithmetic for the pre-test data is 0.119, which is then consulted with F-table at the significance level $\alpha = 0.05$. The F-table is 4.01. The data is homogeneous because the value of the F-arithmetic is smaller than F-table ($F_h < F_t = 0.119 < 4.01$). The post-test data obtained an F-arithmetic of 0.076 and consulted with the F-table at the significance level $\alpha = 0.05$, so the F-table got 4.01. From these data, it can be concluded that the post-test data is homogeneous because the value of F-arithmetic is smaller than F-table ($F\text{-arithmetic} < F\text{-table} = 0.076 < 4.01$).

The T-test aims to test the hypothesis in order to determine the differences between both the groups that take learning to read using the Mind Mapping based

Joyful learning models and the groups that take learning to write Indonesia without using the Mind mapping based Joyful learning models. The T-test is also used to test the effectiveness of using the Mind Mapping-based Joyful learning models in writing learning compared to writing learning without using the Mind Mapping-based Joyful learning models. The details are explained below:

Table 4.
T-test

Treatment	T _{arithmetic}	T _{table}	Sig	Conclusion
Joyful learning-based Mind Mapping learning models	2.354	2.000	0.05	The model is effective

Based on the results of the analysis, it can be concluded that the value of T_{arithmetic} is consulted with the value of T-table at the significance level of $\alpha = 5\%$, obtained t table = 2.000. This shows that the value of t is greater than T-table (T_{arithmetic}: 2.354 > T-table: 2.000) when compared with a significance value of 0.001 smaller than a significance value of 0.05. Based on the analysis results, it can be concluded that the value of the T-table is consulted with the value of the T-table at the significance level of $\alpha = 5\%$, obtained t table = 2.000. It shows that the value of t is more significant than T-table (T_{arithmetic}: 2.354 > T-table: 2.000) when compared with a significance value of 0.001 smaller than a significance value of 0.05. It can be concluded that the teaching system using the Mind Mapping-based Joy full learning models was better than those that did not use the Mind Mapping-based Joyful learning models.

The mind mapping learning model provides freedom for students to think and develop their learning to become student-centered. During the learning process, all students are involved and are required to participate actively. Meanwhile, the teacher's function during the learning process is only as a facilitator and motivator. Also, the mind mapping model provides opportunities for students to express new ideas through a series of maps to solve problems or questions raised by the teacher so that they can hone their thinking skills and improve their learning outcomes.^{21,22}

²¹ Ricky Sumingguit Yabo, "The Joyful Experience in Learning Mathematics," *Southeast Asian Mathematics Education Journal* 10, no. 1 (2020): 55–67, <https://doi.org/10.46517/seamej.v10i1.85>.

The mind mapping model can improve student learning outcomes because mind mapping has advantages. Namely, it can optimize the right and left brain because mind mapping works with pictures, colors, and simple words. It can save notes. Mind mapping can summarize a chapter of material on one sheet of paper. Learning seems more effective and efficient because mind mappings are the same as how the brain works, which is not systematically arranged but somewhat branching like a tree. This pattern can simplify the recollection process for everything studied and can increase students and teachers' creativity because it will stimulate students or teachers to make pictures or colors on mind mapping to make it look more attractive and sharpen students' analytical and logical power.²³ Joyful learning is one of the strategies in learning that supports developing skills in creating a pleasant learning atmosphere. Teachers can put more joyful learning into the experience of students going to school: (a) look for fun while studying, (b) give appreciation to students, (c) let students do many things, (d) show off students' work, (e) take time to play, (f) make a comfortable classroom.²⁴ Fun learning must be supported by environmental safety, the relevance of teaching materials, and the assurance that learning emotionally will positively impact. A pleasant classroom atmosphere will tend to make students more active in learning.²⁵ The learning atmosphere with Mind Mapping-based Joyful learning Models is very different from learning with conventional techniques. The Mind Mapping-based Joyful learning models have the advantages found in this study. It can increase creativity in drawing diagrams, generating ideas, connect with friends so that students understand quickly. Implementing active, creative learning is not easy because students are accustomed to learning by listening without using active, creative students. At the first meeting, the researcher experienced difficulties when trying a Mind Mapping-based Joyful learning model considered new by students.

²² Chun Wang Wei et al., "A Joyful Classroom Learning System with Robot Learning Companion for Children to Learn Mathematics Multiplication," *Turkish Online Journal of Educational Technology* 10, no. 2 (2011): 11–23.

²³ I Wayan Widiananda and I Nyoman Jampel, "Improving Students' Creative Thinking and Achievement through The Implementation of Multiple Intelligence Approach with Mind Mapping," *International Journal of Evaluation and Research in Education (IJERE)* 5, no. 3 (2016): 246, <https://doi.org/10.11591/ijere.v5i3.4546>.

²⁴ Peta Heywood, "Learning Joyfully: An Emotional and Transformative Experience," *Melbourne Studies in Education* 46, no. 1 (2005): 33–44, <https://doi.org/10.1080/17508480509556414>.

²⁵ Han, "The Effectiveness of Application of Writing Strategies in Writing Instruction."

Research Fadhilaturrahmi²⁶ the teacher's learning to write using the mind mapping model felt more fun because students looked more active in learning with this learning. Research Heriwan²⁷ The result is increased students' writing skills using the mind mapping model. This technique creates patterns of thought that are then developed and poured into narrative writing so that students can create narrative writings with these patterns.²⁸ Writing with a mind map enables to ascend their motivation to learn. It influences students' behavior and options towards daily situations dealing with considering for decisions in learning to be objective, knowledgeable, meaning construction, reliable and factual transfer of ideas,^{29,30}.

This research can be done on other language skills, such as reading, speaking, or listening. Using the Mind Mapping-based Joyful learning model can improve students' writing skills and abilities in learning Indonesian. Based on this, the Mind Mapping-based Joyful learning model positively affects teaching and learning.

CONCLUSION

The writing skills of students who are still low can be improved using an innovative learning model. This study proves that the mind mapping learning model based on joyful learning is effective on writing skills, so the quality of students' writing skills is improving. The application of the Mind Mapping-based Joyful learning model has implications for improving the quality of the learning process of students. The learning process has good quality if the implementation is active and fun, namely a form of learning that allows students to play an active role in interacting with both teachers as educators and fellow students.

²⁶ Fadhilaturrahmi, Rizki Ananda, and Sisi Yolanda, "Pengembangan Model Pembelajaran Inovatif Dengan Menggunakan Mind Mapping Christa," *Jurnal Basicedu* 5, no. 3 (2021): 1683–88.

²⁷ Heriwan dan Taufina, "Jurnal Basicedu," *Jurnal Basicedu* 3, no. 2 (2020): 524–32.

²⁸ Benny Agus Pribadi and Rudi Susilana, "The Use of Mind Mapping Approach to Facilitate Students' Distance Learning in Writing Modular Based on Printed Learning Materials," *European Journal of Educational Research* 10, no. 2 (2021): 907–17, <https://doi.org/10.12973/EU-JER.10.2.907>.

²⁹ Pribadi and Susilana.

³⁰ Hadeel Mohammad Al Kamli, "The Effect of Using Mind Maps to Enhance EFL Learners' Writing Achievement and Students' Attitudes Towards Writing at Taif University," *Arab World English Journal*, no. 232 (2019): 1–92, <https://doi.org/10.24093/awej/th.232>.

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DECLARATION OF CONFLICTING INTERESTS

There are two main limitations to this research that can be discussed in future research. First, the study focused on one area in Indonesia and was only carried out for a short time. Second, this study did not involve lecturers to confirm the data collected from teachers.

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