JOAPE : Journal of Asian Primary Education
Volume 1 Issue 1 Year 2024 Pages 53-59
E–ISSN 3062-9268
DOI: 10.59966
e-mail : joape@gmail.com
https://jurnal.kalimasadagroup.com/index.php/Joape

The Effect of Using the Mind Mapping Model on Student Learning Creativity in Science Subjects in Class IV Students at SD Inpres 2 Paranggi

Riska Arifka[1*], Yusdin B.M Gagaramusu[2], Sinta Satria Dewi Pendit[3], Sarintan N. Kaharu[4]

[123]Primary School Teacher Education, Teacher Training and Education, Tadulako University

Email Correspondence : riskaarifka720@gmail.com *

Abstract: The aim of this research is to describe the effect of using the Mind Mapping model on student learning creativity in science subjects for fourth grade students at SD Inpres 2 Paranggi. The population in this study were all fourth grade students at SD Inpres 2 Paranggi, and a sample of 22 respondents was obtained. The data collection technique in this research uses a questionnaire. Partial hypothesis testing (T test) is carried out to analyze the partial influence of the independent variable on the dependent variable. The way to test the T test is to compare the calculated T with the T table at the real level α = 0.05. The T test has a significant effect if the calculation result of T ≥ T table or sig value < 0.05. Ho has influence and Ha has no influence.

Keyword : Use of Mind Mapping, Student Learning Creativity, Science in Elementary School

Article info: Submitted : 23 January 2024 | Accepted : 22 March 2024 | Published : 25 March 2024

How to Cite : Nuriani, R. A., B.M Gagaramusu, Y., Satria Dewi Pendit, S., & N. Kaharu, S. (2024). The Effect of Using the Mind Mapping Model on Student Learning Creativity in Science Subjects in Class IV Students at SD Inpres 2 Paranggi. *Journal of Asian Primary Education (JoAPE)*, *1*(1), 53-59. https://doi.org/10.59966/joape.v1i1.870

Introduction

Education can simply be interpreted as a human effort to develop his personality in accordance with the values of society and culture. No matter how simple the civilization of a society, the educational process still occurs or takes place in it. Therefore, it is often said that education has existed throughout human civilization. Of course, what is meant by education here does not mean that there are educational institutions in the form of schools like today (Deshpande, 2013;Purnomo, P. 2016).The level of creativity in basic education units, especially science learning creativity, is not yet in line with what educators expect, there are two factors that influence this, namely internal factors and external factors. Internal factors include biological factors that are influenced by the parents' genes and physiological factors that are influenced by the child's health. External factors include the family environment, school environment and community environment. The family environment, for example, the parenting style applied by parents has a huge influence on children's growth and development, the school environment because everything in the school environment can influence learning creativity, such as teachers with all their potential, the number of peers, the learning system which is influenced by cultural factors. , habits, religion and demographic conditions that exist in a

Hija society (Asrul & Pia, 2022)Interests are formed through experience, not something children acquire from birth. Developing interest in something basically helps students see the relationship between the material they are expected to study and the conditions around it Utari & Nasral,(in Purwiningsih, S., & Sari, YDP (2022). According to Lutvi, based on the results of observations, observations and test results, it shows that the Mind Mapping learning model can increase students' learning creativity with an average score of 72.3 to 94.7 and students' completeness was initially only half but is now increasing. perfect completion score. Lutvi,(in Purwiningsih, S., & Sari, YDP (2022)

From the statement above, learning should not only emphasize memorizing material. The teacher delivers the material and students are active in learning activities so that students have three important aspects in learning science, namely process skills, scientific attitudes and scientific products. Teachers are required to be able to help students actively learn, create a sense of comfort, and develop students' brain working abilities. Using the lecture method as the only learning strategy will certainly hinder student activity. Teachers are expected to use varied methods to achieve science learning objectives, especially to achieve optimal student learning achievement. (Dian, 2017). Teachers have an obligation to create conducive learning conditions through various models, methods and learning media that suit the characteristics of students, the learning environment and subject families. So it can be concluded that learning in schools cannot be separated from the role of teachers in teaching. Teaching is not conveying learning, but rather the process of teaching students. Teachers must pay attention to everything related to students when teaching. There must be a two-way relationship between teachers and students, so that the learning process occurs more effectively (Ahmadi, 2013).

Learning in schools which aims to develop students' thinking abilities is closely related to the nation's technological developments. The current technological developments cannot be separated from the mastery of natural science. The material prosperity of a nation is very dependent on the nation's ability in the field of science, because science is the foundation of technology and technology is the backbone of development. It can be said that the influence of a nation's mastery of knowledge determines that nation's ability to master it (Yesi, 2019;Hera, T. 2021). Then, in its application in the field, there are still many teachers who do not use creative and innovative learning models, in fact many teachers teach without using learning resources. When studying, students are not really directed to learn through the thinking process. In its application, students have not been trained to be able to formulate problems, propose hypotheses, collect data, test hypotheses and conclude. Teachers are used to learning as it is so that learning is teacher centric (centered on the teacher), the learning material delivered by the teacher is the same as that in the book. they can learn at home without needing to go to school, in learning teachers have not designed learning activities that allow students to carry out discovery activities, teachers are less able to provide motivation and input to students in learning. Teachers also do not utilize the environment as a learning medium which has an important role as a learning resource. This can result in students studying science in class being less independent, less creative, having a weak

understanding of the material, and having low interest in learning, which ultimately results in less effective learning and difficult to achieve learning goals. (Zhou et al., 2020). (According to Ma'ruf 2019;Rahmawati & Budiningsih, 2014), the mind map model can stimulate a person's creative side through the use of curved lines, colors and images.

(Santrock, 2018;Munandar 2014; Siregar, 2014)) Suggests that creativity is the ability to think about something in a new and unusual way and produce a unique solution to a problem. Sukmadinata defines creativity as the ability a person has to discover and create new things, new ways, new models that are useful for themselves and society.

From the results of interviews with class IV teachers, it is known that this is partly caused by students' difficulties in understanding and learning something unfamiliar and new, especially in science lessons. Apart from that, in the learning process teachers still use conventional methods, namely the lecture method. So during the lesson only the teacher is active, while the students don't do anything except listen to the teacher explaining Regina's lesson(in Yesi.2019;Wulandari et al. 2019). With the Mind Mapping model, it is hoped that it can improve several aspects of the learning process, namely: concentration, creativity, memory and understanding, so that students can make better learning decisions so they can overcome learning difficulties. Apart from that, during the teaching and learning process a pleasant atmosphere will be created and in the end it will have an impact on students' acceptance of the learning material and can improve student learning outcomes, especially in science lessons.According to (Afifah, I., & Sopiany, 2017; Ulfah et al 2022;Ramlah, 2022) Syllabus Mind Mapping or what is usually called Macro Mind Mapping, is a type of Mind Mapping that can help visualize what needs to be studied. Generally, Mind Maps are arranged in large sizes and attached to the wall.

1. The advantages of the mind mapping learning model according to Putra (2020). that is:
   a. can help students in many ways, such as stimulating students' creativity, understanding and memory.
   b. stimulate a person's creative side through the use of curved lines, colors and images.
   c. Students enjoy many things after making a mind map, making it easier to see, read, digest and remember.
2. According to Farhurohman (2017), the shortcomings of the mind mapping learning model are:
   a. Only active students are involved.
   b. Not all students learn.
   c. Amount of detailed information cannot be entered..

Methodology

The focus of this research is the effect of using the Mind Mapping Model on students' learning creativity in science subjects in class IV students at SD Inpres 2 Paranggi. The approach used in this research is a quantitative approach. This quantitative

approach aims to test theories, establish facts, show relationships between variables, provide statistical descriptions, estimate and predict results.

This research was carried out at SD Inpres 2 Paranggi. The elementary school is located on Jln. Katombo, Ampibabo District, Parigi Moutong Regency, Central Sulawesi Province. This research took place from March 4 to March 16 of the 2024 academic year. This was done so that researchers could find out more about the problems of using mind maps in class IV at SD 2 Paranggi and get better results.

The type of data in this research is primary data. Primary data is data collected from the first party at the research location or subject. Types of data obtained through observation, interviews and documentation. The data source that the researcher obtained directly was through interviews with class IV teachers as subjects of applying the Mind Mapping model and class IV students as objects of applying the Mind Mapping model. Apart from that, researchers also obtained data sources through observation activities in learning descriptive essay writing skills using the Mind Mapping model during the learning process and research process.

Result and Discussion

The implementation of this research lasted for two weeks. The research was carried out from March 4 to March 16 and was attended by all students. Before students fill out the questionnaire, the researcher first explains the purpose and purpose of filling out the questionnaire to the students (respondents). The questionnaire given to respondents contained statement items arranged based on indicators. The percentage is calculated for each indicator and each statement item filled in by the respondent. The results obtained from calculating each positive and negative statement based on each indicator then calculated the average percentage and interpreted it into four categories. The following is a recap of all mind map indicators for fourth grade students at SD Inpres 2 Paranggi.

The following data description contains data information including the mean, median, mode and standard deviation of each research variable for each variable. To find out a detailed description of each variable, it can be seen as follows: Mind map data (variable X) was obtained through a questionnaire consisting of 20 statements. The score scale for each item is 1-4 with a total of 22 students as respondents.

Based on mind map data, the calculation results using the SPSS version 26 for Windows program have a convergent tendency with a mean (M) of 48.86, a median (Me) of 49.00, a variance of 13.171, a range of 13, a standard deviation of 3.629, The minimum value is 42, and the maximum value is 55. The results of the statistical analysis of mind mapping are summarized in the table. Sujarweni (2014) stated that the normality test aims to determine the distribution of data on the variables that will be used in research. The criterion is that at a significance level of 5% (0.05), the data is said to be normally distributed if the significance value obtained is sig > 0.78.

The implementation of this research lasted for two weeks. The research was carried out from March 4 to March 16 and was attended by all students. Before students fill out the questionnaire, the researcher first explains the purpose and purpose of filling out the

questionnaire to the students (respondents). The questionnaire given to respondents contained statement items arranged based on indicators. The percentage is calculated for each indicator and each statement item filled in by the respondent. The results obtained from calculating each positive and negative statement based on each indicator then calculated the average percentage and interpreted it into four categories. The following is a recap of all mind map indicators for fourth grade students at SD Inpres 2 Paranggi.

The following data description contains data information including the mean, median, mode and standard deviation of each research variable for each variable. To find out a detailed description of each variable, it can be seen as follows: Mind map data (variable X) was obtained through a questionnaire consisting of 20 statements. The score scale for each item is 1-4 with a total of 22 students as respondents.

Based on mind map data, the calculation results using the SPSS version 26 for Windows program have a convergent tendency with a mean (M) of 48.86, a median (Me) of 49.00, a variance of 13.171, a range of 13, a standard deviation of 3.629, The minimum value is 42, and the maximum value is 55. The results of the statistical analysis of mind mapping are summarized in the table. Sujarweni (2014) stated that the normality test aims to determine the distribution of data on the variables that will be used in research. The criterion is that at a significance level of 5% (0.05), the data is said to be normally distributed if the significance value obtained is sig > 0.78.

Conclution

Based on the results of the research and discussion, it can be concluded that the problem formulation in this research was answered, because the researchers found the influence of using the mind map model on student learning creativity in science subjects in class IV students at SD Inpres 2 Paranggi. This can be seen from the average mind map and creativity score of 48.86 and the student learning creativity score of 69.55. Referring to the results of the analysis above, the null hypothesis (Ho) which states that there is no influence of the use of the mind map model on student learning creativity in science subjects for fourth grade students at SD Inpres 2 Paranggi is declared rejected, while the hypothesis (Ha) which states that there is an influence of its use. The mind map model for student learning creativity in science subjects for class IV students at SD Inpres 2 Paranggi was declared acceptable.

References

Afifah, I., & Sopiany, HM (2017). No Title: The Influence of the Science Mind Mapping Method in Science Lessons, Nature Conservation Material on Learning Achievement., 87(1,2), 149–200.

Asrul, A., & Pia, M. (2022). Implementation of the Mind Mapping Model on Students' Science Learning Creativity in Elementary Schools. Papeda Journal: Journal of Basic Education Publications, 4(2), 169-174..

Deshpande, S. (2013). APPLICATION OF THE MIND MAPPING METHOD TO INCREASE STUDENTS' INTEREST IN LEARNING AND CREATIVITY Title. Journal of the

American Chemical Society 123(10),21762181. https://shodhganga.inflibnet.ac.in/jspui/handle/10603/7385

Dian, W. (2017). Research Methods Research Methods. Qualitative Research Methods, 17, 43. http://repository.unpas.ac.id/30547/5/BAB III.pdf

Farhurohman, O. (2017). The Nature and Application of the Mind Mapping Model in Learning in Elementary/MI. Primary: Journal of Science and Basic Education, 8(01), 35–42.

Hera, T., & Elvandari, E. (2021). The Influence of the Explicit Instruction Learning Model on Regional Dance Learning as a Basis for Traditional Dance Skills. Sitakara Journal, 6 (1), 40-54.

Lestari, Weni Arianingtyas Uji, R. Wakhid Akhdinirwanto, and Arif Maftukhin. "Using Mind Mapping to Improve Learning Outcomes for Purworejo State MTs Students." Radiation: Periodical Journal of Physics Education 1.1 (2012): 76-79.

Munandar, Utami. 2014. Developing the Creativity of Gifted Children. Jakarta : Rineka Cipta

NAJOYA, DS (2023). THE INFLUENCE OF USE OF THE MIND MAPPING LEARNING MODEL ON LEARNING OUTCOMES OF C(Asrul & Pia, 2022)LASS IV STUDENTS OF MUHAMMADIYAH METRO CENTRAL PRIMARY SCHOOL.

Pane, A. M. (2022). Application of the mind mapping learning model in improving student learning outcomes in thematic learning Class III MIN I South Tapanuli, Panobasan Village, West Angkola District, South Tapanuli Regency (Doctoral dissertation, UIN Syekh Ali Hasan Ahmad Addary Padangsidimpuan).

Purnomo, Puji, Maria Sekar Palupi. (2016). Development of Mathematics Learning Outcomes Tests Material for Solving Problems Related to Time, Distance and Speed for Students Kleas V. Research Journal.1

Purwiningsih, S., & Sari, YDP (2022). Analysis of the influence of mind maps on students' learning interest in compound nomenclature material using the inquiry model in vocational high schools. Educative: Journal of Educational Sciences, 4(2), 1639-1647.

Putra, ED, and Lutfiyah, L. 2020. Comparison of the Mind Mapping Learning Model Assisted by Worksheets with the Lecture Method on Student Learning Outcomes. Prismatics: Journal of Mathematics Education and Research. 2(2): 33-45.

Rahmawati, MME, & Budiningsih, CA (2014). The Influence of Mind Mapping and Learning Style on Students' Understanding of Concepts in Science Learning. Journal of Educational Technology Innovation, Vol. 1, pp. 123– 138.

Ramlah, s. &. (2022). The Influence of the Mind Mapping Method on Science Learning Outcomes on the Concept of Ecosystem Material in Class V Students at Panpres Elementary School PS Bangiang, Gowa Regency. Makassar: Nurul Renadilla.

Siregar, R. (2014). Use of the Mind Mapping Method on Student Learning Achievement. Journal of Community Service, 20(75), 84–88.

Ulfah, M., Bakti, I., & Saadi, P. (2022). Application of the Project Based Learning Model with Mind-Map Assignments on Buffer Solution Material. JCAE (Journal of Chemistry and Education), 5(3), 95-101A

Wulandari, FA, Mawardi, M., & Wardani, KW (2019). Improving the Creative Thinking Skills of Grade 5 Students Using the Mind Mapping Model. Primary School Scientific Journal, 3(1), 10-16.

Yesi. (2019). The influence of using the mind map method on learning outcomes

Zhou, Yang, and Wang. (2020). No. The Influence of the Mind Mapping Learning Model on Class IV Students' Learning Creativity in Science Subjects in the Title.