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MODEL IMPLEMENTATION MIND MAPPING ON STUDENT LEARNING OUTCOMES IN CLASS IV SOCIAL STUDIES SUBJECTS AT SD NEGERI 23 LUBUKLINGGAU

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Abstract

This study aims to determine the completeness of social studies learning outcomes for fourth grade students after applying the model Mind Mapping. The research method used in this research is quasi-experimental design research Pre-experiment One Group Pre-test and Post-test. The data collection technique was carried out using a test technique in the form of an essay with 5 questions. Data analysis techniques with steps: calculating the average, standard deviation, normality test and hypothesis testing. The population in this study were fourth grade students with a total sample of 22 students taken using a saturated sampling technique. The average score of student learning outcomes in the initial test was 40.31 and in the final test it was 86.41 and students with an average increase of 46.1. on datapost-test it was found that there were students who completed the standard of 65 out of the total class IV students with a learning completeness percentage of 100%. Based on the calculation results of the z-test analysis. known $Z_{\text{value}_{\text{count}}}$ (8,63) > $WITH_{\text{table}}$ (1.64). Thus it can be concluded that after applying the model Mind Mapping in the social studies subject, the learning outcomes of fourth grade students at SD Negeri 23 Lubuklinggau are significantly complete.

Keywords: Mind Mapping, Model, Social Studies Learning, Elementary School

Abstrak

Penelitian ini bertujuan untuk mengetahui ketuntasan hasil belajar IPS siswa kelas IV setelah diterapkan model *Mind Mapping*. Jenis penelitian yang digunakan yaitu kuantitatif. Pengumpulan data dilakukan dengan teknik (*pre-test* dan *post-test*). Metode nya *Pre-Experimental design*. Instrumen yang digunakan berbentuk soal esai. Populasi pada penelitian ini adalah siswa kelas IV dengan jumlah sampel sebanyak 22 siswa. Nilai rata-rata hasil belajar siswa pada tes awal sebesar 40,31 dan pada tes akhir menjadi 86,41 dan siswa dengan peningkatan rata-rata sebesar 46,1. Pada data *post-test* didapatkan ada siswa yang tuntas mencapai standar 65 dari total siswa kelas IV dengan persentase ketuntasan belajar sebesar 100%. Berdasarkan hasil hitung atau analisis uji-z. *post-test* dengan Z_{hitung} (8,63) > Z_{tabel} (1,64), data *post-test* meningkat menjadi 100% atau semua siswa tuntas mencapai dari total siswa kelas IV yaitu 22 orang. Demikian, dapat disimpulkan bahwa setelah diterapkan model *Mind Mapping* pada mata pelajaran IPS siswa kelas IV secara signifikan tuntas.

Kata Kunci: *Mind Mapping*, Model, Pembelajaran IPS, Sekolah Dasar



INTRODUCTION

Social Sciences is one of the subjects taught at all levels of education schools. Social studies learning will affect the behavior of every student because basically students are an inseparable part of everyday social life both at home, in the community or at school. Miftahudin (2016: 270) states that IPS is a translation of social studies in Indonesia which means "studies or studies that are directly related to the community". Social studies subjects have a strategic value in preparing human resources from an early age, with the hope of having high competence (high order thinking skill) both in knowledge, skills and attitudes. This ability needs to be trained from elementary school so that students are accustomed and skilled in thinking and behaving which can become capital at the next level of education (Valen, 2020).

According to Ana Zulfia Latifah, et al (2020: 39) A teacher in the learning process has the task of choosing the right learning model or method to convey a learning material in order to achieve an educational goal. The learning model is a plan or a pattern that is used as a guide in planning learning in class or learning in tutorials. The learning model refers to the learning approach that will be used, including teaching objectives, stages in learning activities, learning environment and classroom management.

The learning model is an important element in transferring material to students. The right and correct learning model will affect the quality of students' absorption of material, so that the depth of the material can be easily understood by students. If teachers are able to apply a learning method properly and correctly, then it is likely that student learning outcomes can give satisfaction to both themselves, the teacher and their parents. Valen (2020) states that the role of the teacher as an educator has a great influence on changes in students' thinking. The teacher has the duty to plan learning, carry out learning activities, and evaluate the process of learning outcomes.

Based on the results of observations made by researchers with one of the teachers teaching social studies subjects on November 11, 2021 in class IV SDN 23 Lubuklinggau named Muhammad Ferdiansyah S. Pd he said that there were still student learning outcomes that had not been completed, that is, out of 22 students, only 9 students or 40.90% reached KKM 65 and 13 students or 59.09% did not complete it. This is because students are lacking pay attention to learning material that causes them not to understand and understand the material conveyed so that the learning outcomes decrease. In addition, students are less active and still tend to be passive and less creative in the learning process so that the learning objectives are not as desired.

The method is something that is important and necessary and considered in the teaching and learning process because the method is one of the tools to achieve goals. By utilizing the method accurately, so that the teacher will be able to achieve learning objectives. Model Mind Mapping being an alternative to assist teachers in developing teaching materials, can increase students' understanding and creativity in learning. Learning model mind mapping as a learning model that can make students learn more actively in class so that the expected learning outcomes are complete. In that effort, a teacher must have an interesting and varied learning model so that students can easily understand the material that has been conveyed. One suitable learning model used by researchers in this study is to use a model mind mapping.

Mind mapping is one of the innovative learning models used in the teaching and learning process. According to Candra (2015:3), mind mapping is one of the innovative learning models summarizing or taking



notes that can attract students' attention and can also use keywords(key word) and pictures. This learning model is useful for training student concentration, critical thinking, improving skills, making it easier for students to remember and understand the learning material delivered by the teacher. This is due to the use of learning models mind mapping which maximizes the function of the left and right brain which involves imagination and creativity so that it makes it easier for students to remember.

Basically Mind Mapping produced from the unity between straight thinking patterns and radiating thinking patterns, use Mind Mapping in order to develop children's fine motor skills, developing children's fine motor skills focuses a lot on the end result, namely so that children can write quickly. Even though what is more important is the process of stimulating the nerve pathways of the child's own brain. If we are able to provide the right stimulation, the child's brain will develop rapidly and be able to think faster. (Kustian, 2021: 31)

This is supported by previous research conducted by Natriani Syam (2015: 185) entitled: Application of the Model Mind Mapping in Improving Learning Outcomes in Social Studies Subjects for Grade IV Students at SD Negeri 54 Pare-Pare City. Learning with mind mapping can improve student learning outcomes compared to using the lecture learning model. This can be seen from the students no longer having difficulty with recording the entire subject matter. Additionally, by implementing the model mind mapping as one of the learning models the researchers found that by using this model students were more active in class, there was interaction between teachers and students, and teachers more easily conveyed learning material to students.

Model mind mapping has several advantages and disadvantages. The advantages of the mind mapping method are being able to see material in detail without losing the common thread on each topic, being able to attract the eye and not being boring, increasing concentration in learning and easily remembering material in a relatively long period of time. Another advantage is that it is quickly understood by students, can generate ideas, can help organize existing ideas, and the results of mind mapping can be used as a writing guide. Based on the background above, the authors conducted a study entitled "Implementation of the Model Mind Mapping Against Student Learning Outcomes in Class IV IPS Subjects at SD Negeri 23 Lubuklinggau". The purpose of this study was to determine the application of the Mind Mapping Model to student learning outcomes in social studies class IV SD Negeri 23 Lubuklinggau.

RESEARCH METHODS

In this study the method used by the author is a quantitative method. In addition, most of the data taken is in the form of numbers, so researchers use this method because they want to find out the effect of applying the model mind mapping on learning outcomes in social studies subjects of fourth grade students at SD Negeri 23 Lubuklinggau.

In addition, the type of research used by the author is experimental research and by designso-experiment One Group Pre-test and Post-test. The research design was carried out twice to measure social studies learning outcomes in fourth grade students at SD Negeri 23 Lubuklinggau.Pre-test carried out at the beginning to see the ability of students before being given learning, namely social studies learning outcomes in class IV students before using the model mind mapping. Then, post-test done at the end to find out the results of student learning after the author uses the model mind mapping. The following is a research design plan One Group Pre-test and Post-test, that is:

Table 1. Design One Group Pre-test and Post-test

| Pre-Test | Treatment | Post-Test |
|----------|-----------|-----------|
| O1 | X | O2 |

Information:

- O1 : Pre-test
- X : Treatment
- O2 : Post-test

In addition, the variables used in this study, namely: independent variables (Independent Variable) and the dependent variable (Dependent Variable). Minarsih (2019: 154) states that the independent variable is a stimulus or variable that influences other variables. While the dependent variable is a variable that gives effect or reaction when it is associated with the independent variable.

- Variabel (X) : Model Mind Mapping
- variable (Y) : Student learning outcomes

The data collection technique in this study was a test in the form of 15 essay questions. Then, to determine the validity of each item obtained by testing the instrument with the results of 5 valid questions. According to Engkus (2019: 104), validity test is a measure of the level of validity or determination of an instrument. A test is said to have high validity if the tool performs the measuring function correctly or gives measurement results that are in accordance with the purpose for which the measurement is carried out.

RESULTS AND DISCUSSION

Research using models Mind Mapping implemented in class IV SD Negeri 23 Lubklinggau. The sample in this study was selected using the saturated sample method, namely class IV, which totaled 22 students who were selected as samples and were given social studies learning treatment with the Mind Mapping. In this study, the number of face-to-face meetings was carried out four times, with details of two teaching meetings using the model Mind Mapping, one time pre-test and one time post-test which all students have followed.

In addition, after the learning process is carried out using models Mind Mapping, the teacher evaluates by giving a test (post-test) This test is carried out to determine the ability or student learning outcomes after being given learning using models Mind Mapping on social studies subjects with material on the diversity of traditional houses.

Learning outcomes Pre-Test

Implementation pre-test carried out to determine the initial learning outcomes of students on material about the diversity of buildings and traditional houses before being given treatment using models mind mapping. Question pre-test which is used in the form of an essay consisting of 5 questions that have been tested beforehand with fifth grade students. Data from the results of learning analysis from students before carrying out the learning model mind mapping can be seen in the table below:

Table 2. Learning Outcomes Pre-Test

| MOH | Student scores | Information | Pre-test | |
|-----|----------------|-------------|-----------|------------|
| | | | Frequency | Percentage |
| 65 | ≥ 65 | complete | 1 | 1 % |

| | | | | |
|--|---------------|---------------|-------------|-----|
| | < 65 | Not Completed | 21 | 99% |
| | Amount | | 22 students | 1 % |
| | Average value | | 40,31 | |

Based on the table above, it can be seen that the experimental class totaling 22 students got grades ≥ 65 with complete criteria of 1 student (1%) and < 65 with incomplete criteria as many as 21 students (99%). Based on table 4.1 it can be concluded that the initial abilities of these students can be said that there is only 1 student who has not completed the KKM, namely 65. This happens because students have not received treatment from the application of the learning model mind mapping with material about the diversity of buildings and traditional houses.

Learning outcomes Post-Test

Implementation post-test carried out to determine the final learning outcomes of students on material about the diversity of buildings and traditional houses. There are as many as 5 questions in the essay form used in post-test. data from the analysis of learning from students after being given treatment by using the model mind mapping can be seen in table 4.2:

Table 3. Learning Outcomes Post-Test

| Mr | Mark | Information | Post-test | |
|---------------|-----------|---------------|-------------|------------|
| | | | Frequency | Percentage |
| 65 | ≥ 65 | complete | 22 | 100% |
| | < 65 | Not Completed | 0 | 0% |
| Amount | | | 22 students | |
| Average value | | | 86,41 | |

Based on the table above, it can be seen that students get grades ≥ 65 with complete criteria of 22 students (100%). Descriptively, it can be concluded that the final ability of students after participating in learning with models mind mapping including completion criteria. The results obtained from the initial ability (pre-test) and ultimate ability (post-test) that has been carried out, it can be said that it has increased with an average initial ability of only 40.31 while the final ability is 86.41. So it can be concluded that the social studies learning outcomes of fourth grade students at SD Negeri 23 Lubuklinggau are significantly complete.

Determine the Average Value and Standard Deviation

From the calculation results it can be seen that there is not a single student who scores below or reaches the KKM of 65. The highest score is 69 and the lowest score is 0 with an overall average score of fourth grade students at SD Negeri 23 Lubuklinggau of 40.31 and a standard deviation that is 19.96. From the results of this study it can be seen that students' abilities in social studies subjects are not yet complete, so the next step that must be taken is to use models mind mapping during the learning process. After completing the learning, the researcher will conduct a final test (post-test) with the aim of knowing the learning outcomes of fourth grade students at SD Negeri 23 Lubuklinggau on social studies subjects regarding the diversity of traditional houses.

The results of the students' final abilities are obtained through the final grades. The test questions used are in the form of 5 essay questions. Execution post-test followed by 22 students. Then, the highest score is 100

and the lowest score is 69. From the results of this post-test the learning outcomes of class IV students at SD Negeri 23 in social studies subjects have increased by using the Mind Mapping. On pre-test get the average grade (\bar{x}) is 40.31 while onpost-test the average value is 86.41 with a standard deviation of 11.64. Thus, it can be interpreted that when compared to the pre-test value it has increased by 46.1. In addition, on the final test results (post-test) there were 22 students who scored more than equal to 65 and no students who scored below 65. Thus, it can be concluded that student learning outcomes after the learning process all exceeded the KKM score or were significantly completed.

Normality Test Results

Then, based on the provisions of statistical calculations regarding the normality test with a level of confidence $\alpha = 0.05$, If $x^2_{\text{count}} < x^2_{\text{table}}$, then the data is normally distributed. Then, if $x^2_{\text{count}} > x^2_{\text{table}}$, then the data is not normally distributed. The following summarizes the results of the value data normality testpost-test can be seen in the table below:

Table 4. Normality Test Results

| Data | x^2_{count} | x^2_{table} | Conclusion | Information |
|-----------|----------------------|----------------------|---|-------------|
| Post-test | 6,0555 | 11,070 | $x^2_{\text{count}} < x^2_{\text{table}}$, | Normal |

Based on the table shows that the test x^2_{count} value data post test smaller than x^2_{table} so that it can be concluded datapost-test normally distributed at the level of confidence $\alpha = 0.05$ and degrees of freedom (dk) = 5 values obtained x^2_{table} seen in the table of chi squared values, namely 11.070.

Hypothesis testing

Based on the normality test of normally distributed data, then to test the hypothesis using the z test the hypothesis tested is:

To = Learning outcomes of fourth grade students at SD Negeri 23 Lubuklinggau after applying the model Mind Mapping less than 65 or incomplete ($\mu < 65$).

Ha = Learning outcomes of fourth grade students at SD Negeri 23 Lubuklinggau after applying the model Mind Mapping greater than or equal to 65 or complete ($\mu_1 \geq 65$).

Based on the provisions of statistical calculations regarding the z test with a level of confidence $\alpha = 0.05$, if $Z_{\text{count}} > Z_{\text{table}}$, it means H_0 rejected while H_a accepted means that the learning outcomes of fourth grade students at SD Negeri 23 Lubuklinggau after applying the model Mind Mapping greater than or equal to 65 ($\mu_1 \geq 65$).

From the results of this description it can be seen that the data picture is clearer, the average value of the initial test(pre-test) and final test(post-test) as well as student learning completeness can be seen in the picture below. Based on the graph above, it can be concluded that the average value forpre-test the values obtained are:

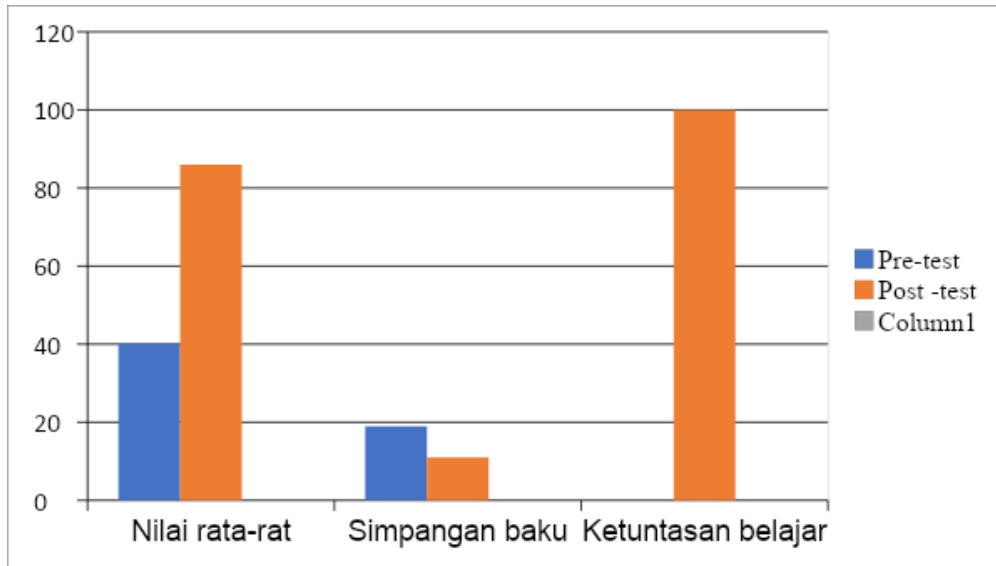


Figure 1. Data Graph Pre-test and Post-test

Based on data graph pre-test and post-test above it is known that the average value is at pre-test namely 40.31 and the average value for post-test the value obtained is 86.41. That is, there is an increase in the average value of 46.1. So it can be concluded that after applying the model Mind Mapping in the social studies subject, the learning outcomes of fourth grade students at SD Negeri 23 Lubuklinggau are significantly complete. This is in line with the results of Kurniasih, Hermawan, and Indriani's research in 2021 entitled "Application of the Mind Mapping To Improve Social Studies Learning Outcomes of Grade IV Elementary School Students". The method used is the Classroom Action Assessment (PTK) method, with the conclusion of the research results that the application of the mind mapping method can improve the results of social studies students in grade IV SD.

At the beginning of the study researchers conducted pre-test which aims to determine the ability of students in social studies subject material about the diversity of traditional houses and can be seen from the results of data analysis pre-test that there was only one student who scored more than 65, this analysis can be observed through the recapitulation of results pre-test. Thus, it can be concluded that social studies learning outcomes for fourth grade students at SD Negeri 23 Lubuklinggau are in the incomplete category. So after knowing the results pre-test those who have not reached the KKM score or have not completed it then proceed with applying the model Mind Mapping which was held in two meetings. At the first meeting, learning begins with the teacher explaining social studies material about the diversity of traditional houses using pictures (Mind Mapping). Then, the teacher forms students in several groups to identify or observe what things are not understood.

After that, each group was given the opportunity to ask questions about the material that had been explained by the teacher. Then, the teacher concludes the discussion material that has been explained. However, at the first meeting there were still many students who were not active and some did not understand the material presented. So that learning activities are not effective. Thus, researchers must anticipate by providing direction and guiding students to be more active while studying.



At the second meeting, the process of teaching and learning activities still uses models Mind Mapping. In addition, this meeting has experienced a significant increase both and learning activities in the classroom are also more active than the previous meeting. This is because students are able to understand and have the courage to exchange opinions between one and the other groups other. So that learning in the classroom is more effective. In addition, at this meeting there was a significant increase both from the previous meeting.

During the learning process by using the model Mind Mapping It is known that student learning outcomes have experienced a good increase. This can be seen from the results of the evaluation by giving questions post-test which amounted to five items in the form of essays with an average value for pre-test of 40.31 and for value post-test of 86.41 with an average increase of 46.1. on data post-test it was found that there were 18 students who had completed KKM 65 out of a total of 22 grade IV students at SD Negeri 23 Lubuklinggau with a percentage of 82% completing 18 students and 18% not completing 4 students.

Based on analysis post-test by using the z-test formula one sample in social studies subjects the material on the diversity of traditional houses was obtained Z_{count} (8.63) is greater than Z_{table} (1.64). It is proven that social studies learning uses models Mind Mapping can improve student learning outcomes.

Thus, the research hypothesis proposed in this study can be accepted as true. So it can be concluded that the learning outcomes of students who use the model Mind Mapping in the social studies subject, the fourth grade students at SD Negeri 23 Lubuklinggau had a significant completion. Then, when the process of using the model Mind Mapping in the learning process students play an active role in asking questions, focusing more on learning, easily understanding the material presented and being able to express opinions freely. So, it can be stated that the model Mind Mapping can be used as an alternative for teachers at SD Negeri 23 Lubuklinggau in improving social studies learning outcomes.

CONCLUSION

Based on the results of the study it can be concluded that the application of learning using models mind mapping in social studies class IV can improve learning outcomes, students play more active roles in the learning process, focus more on learning, easily understand the material presented and are able to express opinions freely. This can be seen from the results of the average value pre-test (scratch test) has increased at times post-test (final test), as well as student learning outcomes complete. Thus, it can be stated that H_a accepted and H_0 is rejected, it can be concluded that the learning outcomes reach the KKM value by using the model mind mapping in the social studies subject, the fourth grade students at SD Negeri 23 Lubuklinggau were significantly complete. Thus the media can be used in elementary school social studies subjects.

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