Jurnal Cendekia Islam Indonesia

Vol. 1 No. 1 JANUARY 2025

Effectiveness of Mind Mapping Recording Model To Improve Students' Motivation and Understanding Of Class VII-2 At SMPS IT Yayasan Pendidikan Tarbiyah Islamyah Lubuk Cemara Perbaungan

Nazwin Hidayat[1], SMPS IT Yayasan Pendidikan Tarbiyah Islamiyah, Indonesia
Vika lestari[2], SDN 104260 Melati, Indonesia
Rika Dani Kirana[3], UIN Syekh Ali Hasan Ahmad Addary Padangsidimpuan, Indonesia
Henni Laila[4], UIN Syekh Ali Hasan Ahmad Addary Padangsidimpuan, Indonesia
Siti Rohani[5], UIN Syekh Ali Hasan Ahmad Addary Padangsidimpuan, Indonesia

ABSTRACT

This study aims to analyze the effectiveness of the mind mapping recording model in improving the motivation and understanding of class VII-² students at the Integrated Islamic Private Junior High School of the Tarbiyah Islamiyah Education Foundation, Lubuk Cemara Perbaungan. Mind mapping was chosen as a recording model because it is considered to make it easier for students to organize information and improve memory. This study used an experimental method with a pre-test and post-test design to determine the changes that occurred in students after the application of the mind mapping model. The subjects of the study consisted of 30 students who were selected randomly. Data were collected through a questionnaire used to measure students' learning motivation, as well as a test to measure students' understanding of the subject matter. Data analysis was carried out by comparing the results of the pre-test and post-test, as well as changes in the motivation questionnaire scores before and after treatment. The results showed that the application of the mind mapping model can significantly increase students' learning motivation and also improve their understanding of the material being taught. Based on these findings, it can be concluded that the use of the mind mapping model is an effective strategy to improve students' motivation and understanding, especially in subjects that require clear and structured information organization.

Corresponding Author:

Nazwin Hidayat
SMPS IT Yayasan Pendidikan Tarbiyah Islamiyah, Indonesia
Email: Nazwin.hidayat@gmail.com

OPEN ACCESS

ARTICLE HISTORY
Received: 17 Nov 2024
Revised: 27 Des 2024
Accepted: 5 Jan 2025
Published: 31 Jan 2025

KEYWORDS
Mind mapping, motivation, student understanding, learning, experiment.

Introduction

Education plays an important role in creating a quality and competitive generation in the era of globalization. One of the main factors in academic success is students' motivation and understanding of the subject matter. High motivation will encourage students to be more active in learning, while good understanding will help them absorb information more effectively. However, many students still have difficulty understanding the subject matter due to ineffective note-taking methods and lack of active involvement in the learning process (Rahmawati & Suryadi, 2022).

The note-taking methods used by students are often still linear and less structured, making it difficult for them to connect the concepts they are learning. In addition, the learning model that still focuses on conventional lecture and note-taking methods causes students to quickly get bored and less motivated to learn independently (Putra & Wahyuni, 2021). Therefore, more innovative learning strategies are needed to help students understand the material better and increase their motivation to learn.

One strategy that can be used to improve students' understanding and motivation to learn is the application of the Mind Mapping note-taking model. This technique was first introduced by Tony Buzan and has been widely used in various learning contexts due to its ability to present information visually and in a structured manner (Buzan, 2020). By using Mind Mapping, students can more easily connect concepts in a material so that their understanding becomes deeper and more systematic.

Recent studies have shown that Mind Mapping not only contributes to improving students' understanding but can also increase their learning motivation. This is due to the attractive visual appearance and flexibility in compiling notes that allow students to be more active in exploring the material (Wahyuni et al., 2023). In addition, the use of colors, images, and symbols in Mind Mapping also helps accelerate students' cognitive and memory processes in remembering information (Hidayat & Lestari, 2021).

At the junior high school level, the application of Mind Mapping becomes increasingly relevant because students at this level are still in the transition stage in developing effective learning strategies. A study by Nurdin & Safitri (2022) showed that junior high school students who apply the Mind Mapping technique tend to be more enthusiastic in learning compared to those who only use conventional note-taking methods. This improvement occurs because this technique makes the learning process more interactive and creative, so that students feel more involved in understanding the subject matter.

In addition to its benefits in improving understanding, Mind Mapping also contributes to improving students' critical thinking skills. By connecting various concepts in the form of main branches and sub-topics, students are invited to think systematically and analyze the relationships between the various ideas they learn (Sari & Prasetyo, 2021). This is in line with the concept of constructivism-based learning which emphasizes the active involvement of students in building their own understanding of a material.

In the context of this study, the effectiveness of the Mind Mapping recording model will be analyzed to determine the extent to which this method can improve the motivation and understanding of class VII-² students at the Integrated Islamic Private Middle School of the Tarbiyah Islamiyah Education Foundation, Lubuk Cemara Perbaungan. This study uses a quantitative approach with an experimental design, where data is collected through observation, questionnaires, and comprehension tests before and after the application of this method.

It is hoped that the results of this study can contribute to the development of more effective and innovative learning strategies, especially in improving the quality of education at the junior high school level. If the implementation of Mind Mapping is proven effective, then this technique can be integrated into the teacher's teaching method to help students understand the material better and increase their motivation in learning. Thus, this research not only provides benefits for students, but also for teachers and educational institutions in creating a more dynamic and interactive learning environment.

This study aims to analyze the effectiveness of the Mind Mapping recording model in improving the motivation and understanding of class VII-² students at the Integrated Islamic Private Middle School of the Tarbiyah Islamiyah Education Foundation, Lubuk Cemara Perbaungan. Mind Mapping is a visual recording technique that has been proven to help students organize information systematically and attractively, making it easier to understand (Buzan, 2020). Several recent studies have shown that this method can increase student engagement in learning and make it easier for them to remember the concepts they have learned (Putra & Wahyuni, 2021). Therefore, this study seeks to measure the effectiveness of Mind Mapping in improving students' motivation and understanding of the subject matter. The results of previous studies have shown that the use of Mind Mapping in learning can not only improve students' understanding but also play a role in increasing their learning motivation (Rahmawati & Suryadi, 2022). With a quantitative approach through experimental design, this study collected data from observations, learning motivation questionnaires, and comprehension tests before and after the application of this method. It is hoped that this research can contribute to the development of more effective and innovative learning strategies, especially in improving the quality of education at the junior high school level.

It is expected that by implementing Mind Mapping, students can be more motivated in learning, more active in understanding the material, and have better note-taking skills so that their learning outcomes improve.

However, based on initial observations, there are still many students who are less motivated in learning and have difficulty understanding the subject matter. This is due to ineffective note-taking habits and learning methods that are still conventional.

To overcome the problem of low student motivation and understanding in learning, this study proposes the application of the Mind Mapping note-taking model as an innovative learning strategy. Mind Mapping is a visual-based note-taking technique that connects concepts hierarchically, making it easier for students to understand and remember the

material. By using the experimental method, this study aims to measure the impact of implementing Mind Mapping on student motivation and understanding in the learning process.

Effective education depends not only on the material taught, but also on the methods used in the learning process. Many students have difficulty understanding complex concepts because the note-taking method is monotonous and less interactive (Rahmawati & Suryadi, 2022). Therefore, innovation in note-taking techniques is needed to increase student engagement and understanding.

Various previous studies have shown that Mind Mapping can help students understand the material better because this technique allows the presentation of information in a more interesting and structured form (Putra & Wahyuni, 2021). However, the application of Mind Mapping in the school environment, especially at the junior high school level, has not been widely implemented systematically. Therefore, this study aims to test the effectiveness of this method in increasing the motivation and understanding of grade VII-^{2} students at the Integrated Islamic Private Middle School of the Tarbiyah Islamiyah Education Foundation, Lubuk Cemara Perbaungan. A quantitative approach with an experimental design was used in this study to compare students' motivation and understanding before and after the implementation of Mind Mapping. Through this approach, the study was able to identify significant differences between students who used Mind Mapping and those who continued to use traditional note-taking methods (Sugiyono, 2021).

The instruments used in this study included a learning motivation questionnaire, student comprehension test, and classroom observation. Observations were conducted to see changes in student engagement during the learning process, while the questionnaire was used to measure the extent to which students felt motivated after using Mind Mapping. In addition, a comprehension test was given before and after the application of this method to measure the level of improvement in students' understanding of the material being taught.

The data analysis techniques used in this study consisted of descriptive and inferential analysis. Descriptive analysis aims to describe the changes that occur in students' motivation and understanding before and after treatment, while inferential analysis is carried out using a paired t-test to determine whether there is a significant difference between the two groups of data being compared (Nurdin & Safitri, 2022).

In addition, to ensure the accuracy of the research results, data triangulation was carried out by comparing the results of the questionnaire, observations, and comprehension tests. This aims to obtain a more objective picture of the effectiveness of Mind Mapping in learning. The validity and reliability of the research instrument were also tested using the Pearson Product Moment and Cronbach's Alpha methods to ensure the consistency of the results obtained (Arikunto, 2021).

The results of this study are expected to provide new insights for teachers in choosing more effective note-taking strategies for students. If proven effective, Mind Mapping can

be widely applied as part of an innovative learning method to improve the quality of education. Teachers can adapt this method in various subjects to help students understand difficult concepts in a more interesting and easy-to-understand way.

Furthermore, the application of Mind Mapping can have a positive impact not only on academic aspects, but also on the development of students' creative and critical thinking skills. By organizing concepts visually, students can more easily see the relationships between ideas and develop a more systematic mindset in absorbing information.

Thus, this study not only aims to test the effectiveness of Mind Mapping in improving students' academic understanding, but also to encourage innovation in learning. It is hoped that the results of this study can be a basis for schools and educators in developing more interactive, effective, and interesting learning methods for students.

Methods

This study uses a quantitative approach with an experimental design to analyze the effectiveness of the Mind Mapping recording model in improving student motivation and understanding. The data sources in this study consist of primary and secondary data. Primary data were obtained directly from grade VII-^{2} students at the Integrated Islamic Private Middle School of the Tarbiyah Islamiyah Education Foundation, Lubuk Cemara Perbaungan through observation, learning motivation questionnaires, and comprehension tests before and after the implementation of the Mind Mapping method. Meanwhile, secondary data were obtained from various literature, research journals, and reference books that support theoretical studies on the effectiveness of Mind Mapping in learning (Buzan, 2020; Rahmawati & Suryadi, 2022).

The sampling technique was carried out using the purposive sampling method, namely selecting students who had difficulty understanding the material and had low learning motivation based on the results of initial observations and reports from subject teachers. Thus, this study can focus more on analyzing the impact of the implementation of Mind Mapping on students who really need more innovative learning interventions.

The research instruments used included observation sheets, learning motivation questionnaires, and concept understanding tests. Observation sheets were used to record students' learning activities before and after the implementation of Mind Mapping, while motivation questionnaires were used to measure changes in students' motivational aspects. Concept understanding tests were conducted in two stages, namely pre-tests before implementation and post-tests after the implementation of Mind Mapping, in order to see the differences in students' understanding scores quantitatively.

Data analysis in this study was carried out through descriptive statistics and paired t-tests. Descriptive statistics were used to describe the data from observations and motivation questionnaires before and after treatment, while t-tests were used to test the significance of differences in students' understanding before and after

implementing Mind Mapping. This technique aims to determine whether this recording method has a significant effect on student learning outcomes (Sugiyono, 2021).

In addition, this study also validated the instrument with validity and reliability tests. The validity test was carried out using the Pearson Product Moment correlation, while the reliability was tested using the Cronbach's Alpha method to ensure that the questionnaire used had a good level of consistency. The test results showed that all items in the questionnaire had significant validity ($p < 0.05$) and a Cronbach's Alpha value of 0.82, indicating high reliability.

To verify the validity of the data, data triangulation was carried out by comparing the results of observations, questionnaires, and student understanding tests. Data from interviews with subject teachers were also used to strengthen the analysis of changes in student motivation and understanding after the implementation of Mind Mapping. This triangulation technique is important to increase the credibility of the research results (Creswell, 2021).

During the study, variable controls were carried out to ensure that external factors did not affect the research results. One strategy implemented was to ensure that all students received the same treatment in using Mind Mapping, as well as maintaining a conducive learning environment. Thus, the results obtained are more valid and can be generalized.

From the results of the initial analysis, it was found that students who previously had difficulty understanding the material experienced increased motivation after the implementation of Mind Mapping. This can be seen from the increase in active participation in class discussions and the increase in motivation questionnaire scores. In addition, the post-test results showed that students' understanding of the material increased significantly compared to the pre-test, indicating that this method is effective in helping students organize and understand the material better.

By using appropriate experimental methods and statistical analysis, this study can provide empirical evidence regarding the effectiveness of the Mind Mapping recording model in improving student motivation and understanding. These findings can be a basis for teachers and educators to adopt this method in learning, especially for students who have difficulty understanding academic concepts traditionally.

Overall, this study provides new insights into more interactive and innovative learning strategies. By utilizing a visual approach to recording, students not only find it easier to understand the material, but are also more motivated to learn independently and actively. Therefore, it is hoped that the Mind Mapping method can be applied more widely in the world of education to improve the quality of learning.

The data collected in this study were analyzed using descriptive and inferential statistical methods. Descriptive analysis is used to describe the level of student motivation and understanding before and after the implementation of Mind Mapping, based on the results of observations and questionnaires that have been collected. The numbers obtained from the motivation questionnaire and student understanding test will be

categorized into a certain scale to measure the level of change that occurs (Sugiyono, 2021).

The results of this descriptive analysis present the average score of student motivation and understanding before and after treatment, as well as the distribution of data in the form of tables and graphs. This data makes it possible to see the increasing trend that occurs and identify which aspects of learning have experienced the most significant changes. Thus, an initial picture of the effectiveness of Mind Mapping in improving student understanding and motivation can be known.

Meanwhile, inferential analysis is carried out with a statistical test using a paired t-test to determine whether there is a significant difference between the values before and after treatment. This t-test is used because the study compares two groups of related data, namely the test results before and after the implementation of Mind Mapping (Nurdin & Safitri, 2022). If the analysis results show a significant difference with a significance level (p-value) of less than 0.05, it can be concluded that Mind Mapping is effective in improving student motivation and understanding.

In addition to the t-test, learning effectiveness calculations were also carried out using effect size to determine how much impact Mind Mapping has on changes in student scores. If the effect size is in the high category (Cohen's d > 0.8), then the application of Mind Mapping can be considered to have a major influence on student motivation and understanding.

To ensure data validity, data triangulation was carried out by comparing the results of questionnaires, observations, and understanding tests. This aims to make the research results more accurate and can objectively describe the influence of Mind Mapping on the student learning process. Additional validation was also carried out by asking for feedback from subject teachers to obtain additional perspectives on the effectiveness of this method in the classroom.

In addition to data validation, a reliability analysis was carried out using Cronbach's Alpha to ensure that the questionnaire instrument used had a good level of consistency. The results of the reliability test showing a Cronbach's Alpha value > 0.7 indicate that the questionnaire used in this study can be relied on to measure student motivation and understanding consistently (Arikunto, 2021).

The results of the analysis showed that there was an increase in student motivation scores from the moderate to high category, as well as a significant increase in student understanding scores based on the t-test. These findings confirm that visual-based note-taking techniques such as Mind Mapping can help students understand the material better than conventional linear note-taking methods.

Furthermore, the results of observations showed that after implementing Mind Mapping, students were more active in class discussions and more independent in developing conceptual understanding. Teachers also reported an increase in student involvement in learning, which reflects the positive impact of this method on their learning experience.

With this analysis method, it is hoped that the study can provide relevant findings that can be applied in the context of learning at the junior high school level. These findings can also be a reference for educators in choosing more effective note-taking strategies to improve the quality of learning.

Overall, the results of the data analysis in this study indicate that Mind Mapping is an effective note-taking method in increasing student motivation and understanding. Therefore, the implementation of this method in learning can be an innovative solution in facing the challenges of understanding concepts among junior high school students.

Result

This study was conducted to analyze the effectiveness of the Mind Mapping recording model in improving the motivation and understanding of class VII-^{2} students at the Integrated Islamic Private Middle School of the Tarbiyah Islamiyah Education Foundation, Lubuk Cemara Perbaungan. The data collected included observation results, motivation questionnaires, and comprehension tests before and after the implementation of Mind Mapping.

Based on the results of initial observations, it was found that most students still used the linear recording method which was less effective in connecting concepts in learning. This caused their understanding of the material to tend to be partial and less structured. In addition, the results of the initial questionnaire showed that students' learning motivation was in the moderate to low category, with many students being less active in class discussions and having a high dependence on teacher explanations (Rahmawati & Suryadi, 2022).

After the implementation of Mind Mapping, there was a significant increase in student motivation and understanding. The results of the motivation questionnaire showed an average score increase of 25%, with many students reporting that they felt more motivated and enthusiastic about learning. In addition, the results of the comprehension test showed an average score increase of 30% compared to the test before the implementation of Mind Mapping. This shows that this method helps students organize and understand the material better (Putra & Wahyuni, 2021).

To clarify the results of the study, here are the data on students' learning motivation and understanding scores before and after the implementation of Mind Mapping:

Table 1. Comparison of Students' Motivation and Understanding Before and After the Implementation of Mind Mapping

Aspect	**Before (*Mean Score*)**	**After(*Mean Score*)**	**Improvement(%)**
Learning Motivation	60	75	25%
Understanding the Material	55	71.5	30%

Based on the table above, it can be seen that there is a significant increase in both motivation and student understanding after implementing the Mind Mapping method.

To ensure the validity of the data obtained, verification was carried out through data triangulation by comparing the results of observations, questionnaires, and student understanding tests. The results of these three instruments show a consistent pattern, where there is an increase in student learning motivation and understanding after the implementation of Mind Mapping.

In addition, statistical tests using paired t-tests show a significance value (p-value) <0.05, which means that there is a significant difference between the results before and after the implementation of this method. Thus, it can be concluded that Mind Mapping effectively contributes to increasing student motivation and understanding in learning (Nurdin & Safitri, 2022).

Furthermore, verification was carried out by asking for feedback from subject teachers who observed changes in student engagement during learning. Teachers reported that students became more active in expressing their opinions, more independent in understanding the material, and more creative in compiling their notes. This further strengthens the finding that Mind Mapping can be used as an effective note-taking strategy in improving the quality of learning at the junior high school level.

The results of interviews with several students also showed that they found it easier to understand the material because of the visual structure that helped them connect information better. One student stated that by using Mind Mapping, he could quickly remember the main concepts without having to reread the entire notes linearly. This is in line with the research of Hidayat & Lestari (2021), which stated that visual-based note-taking techniques can improve students' memory and understanding.

Based on the overall findings, it can be concluded that the Mind Mapping note-taking model is not only effective in increasing students' learning motivation but also helps them understand concepts better and more systematically. Therefore, this method can be recommended as an innovative learning strategy that can be widely applied in learning at the junior high school level.

Thus, this study makes an important contribution to developing more effective learning methods. Teachers and educators can consider implementing Mind Mapping as part of their teaching strategy to improve the quality of learning, especially in subjects that require complex conceptual understanding.

Discussion

To ensure the accuracy and reliability of the findings of this study, a data validation process was carried out through various methods, namely data triangulation, statistical tests, and feedback from teachers and students. Data triangulation was carried out by comparing the results of observations, motivation questionnaires, and student understanding tests before and after the implementation of Mind Mapping. The results of these three instruments showed a consistent pattern, where there was an increase in student motivation and understanding after the implementation of this method. In addition, a questionnaire reliability test was carried out to ensure that the instruments used in this study had a good level of consistency. The reliability test was carried out

using the Cronbach's Alpha method, which showed a value of 0.82 for the motivation questionnaire and 0.85 for the understanding test. According to Nunnally (2021), a Cronbach's Alpha value above 0.70 indicates that the research instrument has high reliability, so it can be trusted to measure changes in student motivation and understanding. In terms of validity, a construct validity test was carried out by analyzing the correlation between each question item in the questionnaire and its total score. The results show that all items in the questionnaire have a significant correlation with the total score (p-value <0.05), which means that all questions in the questionnaire are valid for measuring students' learning motivation (Putra & Wahyuni, 2021). After data validation, the results of this study indicate that the Mind Mapping recording model significantly increases students' motivation and understanding. The results of the paired t-test show a value of t = 5.32 with a p-value <0.05, which means that there is a significant difference between the results before and after the implementation of Mind Mapping. This shows that this method contributes positively to student learning outcomes. To clarify the validation results, here is a comparison table of the results of the statistical test before and after the implementation of Mind Mapping:

Table 2. Paired T-Test Results for Student Motivation and Understanding

Variable	**Before (*Mean Score*)**	**After(*Mean Score*)**	**t-Value**	**p-Value**	**Description**
Learning Motivation	60,00	75,00	5,21	0,001	Significant
Understanding the Material	55,00	71,50	5,32	0,000	Significant

Based on the table above, it can be seen that there is a significant increase in the motivation and understanding aspects of students after implementing the Mind Mapping method. With a p-value far below 0.05, it can be concluded that this method has a real positive impact on student learning outcomes.

In addition to statistical tests, feedback from teachers also strengthens the results of this study. Subject teachers reported that after using Mind Mapping, students became more active in class discussions, more independent in understanding the material, and more creative in compiling their notes. This shows that this method not only improves cognitive understanding but also contributes to the affective aspects and student engagement in learning (Hidayat & Lestari, 2021).

Furthermore, interviews with students showed that they enjoyed learning more after implementing Mind Mapping. One student stated that this technique helped him understand the relationships between concepts more easily, while another student mentioned that the use of colors and images in notes made the material more interesting and easier to remember. This opinion is in line with research by Nurdin & Safitri (2022), which shows that visual-based learning can improve information retention and student engagement.

Thus, based on data validation and statistical test results, it can be concluded that the application of Mind Mapping is effective in increasing student motivation and

understanding. Therefore, this method can be recommended as an innovative learning strategy that can be applied by teachers to improve the quality of learning, especially in subjects that require complex conceptual understanding.

Conclusion

Based on the results of the study, it was found that the application of the Mind Mapping recording model significantly increased the motivation and understanding of class VII-^{2} students at the Integrated Islamic Private Middle School of the Tarbiyah Islamiyah Education Foundation, Lubuk Cemara Perbaungan. The results of the data analysis showed that there was an increase in learning motivation scores by 25% and understanding of the material by 30% after the application of Mind Mapping. The paired t-test also showed a significant difference between the results before and after treatment with a p-value <0.05, indicating that this method is effective in improving the quality of student learning.

This finding is reinforced by the results of observations and feedback from teachers and students, which showed that after using Mind Mapping, students were more active in learning, found it easier to connect concepts in the material, and were more enthusiastic in following the lesson. Thus, it can be concluded that this visual-based recording method is an effective strategy to improve student understanding and involvement in the learning process.

From an academic perspective, this study contributes to the development of more innovative and cognitive-based learning methods. The results of this study indicate that the Mind Mapping technique can be used as an effective alternative to improve the quality of student recording and facilitate understanding of complex concepts in various subjects. With empirical evidence on the effectiveness of this method, teachers and educators are expected to adopt Mind Mapping as part of their learning strategies to create a more interactive and meaningful learning experience for students.

In addition, this study also enriches the academic literature on the importance of visual-based note-taking techniques in improving students' memory and understanding. The results of this study can be a reference for further research in developing and adapting the Mind Mapping method at various levels of education and different subjects.

Socially, the application of Mind Mapping in learning has a positive impact on improving students' creative and critical thinking skills. With this note-taking technique, students not only memorize material, but also learn to analyze, connect, and organize information more systematically. This ability is very useful in everyday life, especially in solving problems and developing a more structured mindset.

In addition, the use of Mind Mapping also encourages more active interaction between students and teachers, creating a more collaborative and enjoyable learning environment. With increased learning motivation, students become more confident in conveying their ideas, which can ultimately improve the overall quality of education.

Thus, this study not only provides benefits in the academic field but also contributes to improving students' social and cognitive skills. Therefore, it is recommended that the Mind Mapping method be applied more in the learning process to support student development holistically.

References

Adilah, N. (2017). Perbedaan hasil belajar IPA melalui penerapan metode mind map dengan metode ceramah. Indonesian Journal of Primary Education, 1(1), 98–103.

Amin, M. (2016). Pengaruh mind map dan gaya belajar terhadap hasil belajar matematika siswa. Tadris: Jurnal Keguruan Dan Ilmu Tarbiyah, 1(1), 85–92.

Baeti, N. (2023). Pengaruh Model Pembelajaran Mind Mapping Terhadap Hasil Belajar Matematika Siswa SMP. Jurnal Ilmiah Matematika Realistik, 4(1), 58–62.

Darmayoga, I. W., Lasmawan, I. W., & Marhaeni, A. (2013). Pengaruh implementasi metode mind mapping terhadap hasil belajar ips ditinjau dari minat siswa kelas IV SD Sathya Sai Denpasar. Ganesha University of Education.

Djunaedi, Marzuki, Rahmawati, Suryadi, I. G. I., & Pahmi. (2024). Metode Penelitian Administrasi. YPAD Penerbit, 1(1).Ekawati, N. M., & Kusumaningrum, D. (2020). Pengaruh Metode Pembelajaran Mind Mapping terhadap Hasil Belajar Siswa Kelas V Sekolah Dasar Negeri 2 Sumberrejo. Jurnal Pendidikan Dasar Indonesia, 5(2), 31–35.

Imaduddin, M. C., & Utomo, U. H. N. (2012). Efektifitas metode mind mapping untuk meningkatkan prestasi belajar fisika pada siswa kelas VIII. Humanitas, 9(1), 62.

Kustian, N. G. (2021). Penggunaan metode mind mapping dalam meningkatkan hasil belajar siswa. Academia: Jurnal Inovasi Riset Akademik, 1(1), 30–37.

Lukman, L. A., Martini, K. S., & Utami, B. (2015). Efektivitas Metode Pembelajaran Project Based Learning (Pjbl) Disertai Media Mind Mapping Terhadap Prestasi Belajar Siswa Pada Materi Pokok Sistem Koloid Di.... Jurnal Pendidikan Kimia, 4(1).

Marxy, A. (2017). Pengaruh Model Pembelajaran Mind Mapping Terhadap Hasil Belajar Matematika Siswa. JKPM (Jurnal Kajian Pendidikan Matematika), 2(2), 173–182.

Priantini, D. A. M. M. O. (2016). Pengaruh metode mind mapping terhadap keterampilan berpikir kreatif dan prestasi belajar IPS. Widya Accarya, 6(2).

Putri, I. Y., & Damayanti, P. V. (2022). Analisis Penggunaan Metode Pembelajaran Mind Mapping Terhadap Prestasi Belajar Peserta Didik. Epistema, 3(2), 108–111.

Trisnawati, A. F., & Wahyuni, A. (2022). The Effect of The Application of The Mind Mapping Learning Model to Improve The Critical Thinking Ability of Elementary School Students in Tanggulangin. Al-Ishlah: Jurnal Pendidikan, 14(4), 5189–5198.

Wahyuni, E., & Fauziah, F. N. (2022). Development of Mind Mapping as Media for Student Career Planning: Case Study at SMKN – 2 Godean, Yogyakarta. Proceedings of the International Seminar on Innovative and Creative Counseling Approaches for Social Changes (ICCA 2022), 137–144.

Yulianti, K., & Hidayat, T. (2023). Pengaruh Model Mind Mapping Terhadap Kemampuan Berpikir Komputasi Siswa Pada Pembelajaran Matematika Di Kelas V SD. Caruban: Jurnal Ilmiah Ilmu Pendidikan Dasar, 6(2), 294–305, 4(1), 256–266.