THE EFFECTIVENESS OF THE MIND MAPPING METHOD ON LEARNING ACHIEVEMENT OF ISLAMIC CULTURAL HISTORY IN CLASS VIII STUDENTS OF MTSN KEPULAUAN SELAYAR

Nurul Qalbi[1]; Syamsuddin[2]; Muhammad Rusmin B[3]; Saprin[4]; Muhammad Yahdi[5]
[1,2,3,4,5] *Pascasarjana, UIN Alauddin Makassar, Indonesia*
[1]*Corresponding E-mail: nurulqalbimiz@gmail.com*

Abstract

This study aims to determine the effectiveness of the mind mapping method in improving student learning achievement in the subject of Islamic Cultural History (SKI) for grade VIII at MTsN Kepulauan Selayar. This study was motivated by the low learning achievement of students in the subject of Islamic Cultural History (SKI), especially in memorization materials. The study used a quantitative approach with an experimental research type through the One Group Pretest-Posttest Design. The study population was 36 grade VIII students. Data collection techniques were carried out through tests and documentation, while data analysis used the Normalized Gain (N-Gain) test. The results showed that the average pre-test score of students was 58.33, increasing to 81.53 in the post-test, with an average increase of 23.20. The results of the N-Gain test obtained an average score of 56.34% which is in the moderate category. These findings indicate that the application of the mind mapping method is quite effective in improving student learning achievement in the subject of SKI. Theoretically, the mind mapping method supports the cognitive learning process through concept visualization, the use of keywords, colors, and relationships between ideas, making it easier for students to understand and remember material more systematically. In addition to improving learning outcomes, this method also creates a more active, interactive, and student-centered learning environment. Therefore, the mind mapping method can be used as an innovative learning alternative to improve the quality of Islamic Cultural History instruction.

Keywords: *Mind Mapping; Learning Achievement; Islamic Cultural History (SKI)*

A. Introduction

The field of study of Islamic Cultural History (SKI) in madrasas is a crucial component of Islamic Religious Education, serving to prepare students to understand, appreciate, and internalize the values inherent in Islamic cultural history. The SKI learning process is not only directed at imparting knowledge but also at shaping students' perspectives and attitudes toward life through guidance, learning, training, utilization of knowledge, and behavioral change in accordance with Islamic values (Hasmar, 2020). Therefore, SKI learning not only focuses on mastering the material but also serves as a means to instill and internalize Islamic values in daily life. Furthermore, studying SKI aims to enable students to comprehend, comprehend, and internalize various events in Islamic cultural history.

The process of understanding and internalizing the material and achieving academic achievement in SKI is influenced by various aspects related to the learning process. Yandi and his colleagues explain that several factors influence student achievement, including learning resources, the learning environment, and school culture. Furthermore, learning resources are not limited to content or learning materials alone, but encompass anything that can be used to support the learning process. This includes the media, facilities, environment, and learning methods implemented by educators (Yandi dkk., 2023). Therefore, selecting the right learning method is a crucial factor in helping students understand and internalize SKI learning material more effectively.

One alternative learning method that can be used to improve student achievement is the mind map method. This method was chosen based on its ability to communicate long and complex learning material into main sections consisting of interrelated main ideas or key points. Each section is then connected using lines or arrows, making it easier for students to understand the relationships between concepts in a more structured and systematic manner. The mind map method also helps students remember material more easily because the information is presented visually and engagingly. Shi et al. (2023) explain that mind mapping-based learning methods have been shown to have a better impact on improving students' cognitive learning outcomes compared to conventional learning methods. One example is shown by research conducted at SDN Pilang 01 Wonoayu in 2021, which found that the use of mind maps improved student learning outcomes, with a percentage of excellent ratings (Hafidho dkk., t.t.). Previous research relevant to this study was conducted by Asrul Huda and Elisabeth Milaningrum entitled "The Effectiveness of the Mind Mapping Method in Speaking Material at Balikpapan State Polytechnic." The study aimed to determine the effectiveness of the mind mapping method in improving students' speaking skills using a qualitative approach through data collection techniques in the form of video recordings, questionnaires, and interviews. The results showed that the application of the mind mapping method showed a positive trend towards improving students' abilities, especially in speaking skills. The similarity between that study and this study lies in the use of the mind mapping method as the object of study. However, there are several fundamental differences, namely in the research approach, subjects, and research location. Huda and Milaningrum's study used a qualitative approach in the EnglSKI subject at Balikpapan State Polytechnic, while this study used a quantitative approach with an experimental design in the Islamic Cultural History (SKI) subject at MTsN Kepulauan Selayar.

Furthermore, another relevant study was conducted by Rahayu Humairo Sukardi et al. (2025) entitled "Using the Mind Mapping Method to Improve Students' Conceptual Understanding and Learning Retention: A Literature Review." This study aimed to examine the effectiveness of the mind mapping method in improving student learning outcomes, conceptual understanding, creative and critical thinking skills, and memory through a qualitative approach using library research. The results showed that the mind

mapping method was effective in helping students understand the material, enhancing creativity and critical thinking skills, and strengthening memory. The similarity between this and this study lies in the focus on the use of the mind mapping method. However, Sukardi et al.'s study used secondary data through a literature review, while this study employed a quantitative approach with an experimental method that utilized primary data obtained directly in the field through pre- and post-tests. Therefore, this study places greater emphasis on directly measuring the effectiveness of the mind mapping method on student achievement in the subject of Islamic Cultural History.

Based on these previous studies, it is clear that the mind mapping method has positive potential in improving students' abilities and learning outcomes in various fields of study. However, research on the effectiveness of the mind mapping method in the Islamic Cultural History (SKI) subject, particularly at MTsN Kepulauan Selayar, is still scarce. Therefore, this study aims to complement previous research by directly testing the effectiveness of the mind mapping method on student achievement through a quantitative approach and experimental methods. Therefore, this research is expected to provide both theoretical and practical contributions to the development of more effective learning methods in the SKI.

Based on initial observations, it was found that educators have been using lecture and group discussion methods in classroom learning. However, the SKI teacher explained that students still experience difficulties, particularly with memorization-based material. This condition is clearly evident in the less than satisfactory learning achievement of students at MTsN Kepulauan Selayar in the SKI. Several students still fail to meet the Learning Objective Achievement Criteria (KKTP). This is evident in the results of the three daily tests administered during the odd semester. According to Ms. Arafah, of the 37 eighth-grade students, approximately 17 failed to achieve the minimum score of 75 on the daily tests.

Although the effectiveness of mind mapping learning methods has been proven at various levels of education and in various fields of study, no one has specifically studied the effectiveness of mind mapping learning methods at MTsN Kepulauan Selayar in the field of Islamic Studies. Therefore, this study is important in providing evidence of the effectiveness of mind mapping in improving student achievement at MTsN Kepulauan Selayar in the field of Islamic Cultural History.

B. Method

The type of research used was quantitative research. Quantitative research is a research approach that utilizes numerical data and statistical analysis to test hypotheses, measure variables, and determine relationships between variables. This approach is deductive, meaning the research is conducted to produce objective findings that can be generalized to a wider population (Greener, 2008).

This research is classified as experimental research, a research method used to test causal relationships between variables by manipulating one or more independent variables in a controlled manner (Kothari, 1990). Experimental research involves manipulating independent variables under controlled conditions to observe their impact on the dependent variable, with the goal of establSKIing a causal relationship (Singh, 2006). In this study, the research design used was a "One Group Pretest-Posttest Design." Pandey and Pandey explain a "One Group Pretest-Posttest Design" as a research design used to measure the effects of an intervention or treatment on a single group of subjects. In this design, measurements are taken before (pretest) and after (posttest) the intervention is implemented (Pandey & Pandey, 2015).

The population in this study was 37 eighth-grade students at MtsN Kepulauan Selayar. Therefore, this study is considered a population study because the subjects were less than 100. This is based on Suharsimi Arikunto's view in Abubakar, which states that if the research subjects number less than 100, it is best to use the entire population, thus making the study a population study (Abubakar, 2021).

This research was conducted for 1 month with the Ayyubid Dynasty as the subject. The research began with a one-time pre-test to determine students' initial abilities and learning achievement in the Islamic Cultural History subject before the mind mapping method was implemented. Furthermore, in the treatment phase, the learning process was carried out by combining lecture and mind mapping methods, with a proportion of approximately 30% lecture and 70% mind mapping implementation according to the learning materials and open modules that had been prepared. In implementing this, the researcher first explained the learning objectives clearly, provided motivation to the students, and presented the material in a coherent, systematic manner, and using language that was easy to understand. The researcher then formed study groups of 2–3 students and provided clear group work instructions. During the learning process, the researcher directed students to note important points of the material, ensured students' understanding of the material, explained the steps for creating mind maps, and guided students throughout the mind mapping process. In addition, the researcher ensured active participation of all groups, provided opportunities for each group to communicate the results of their discussions, managed presentation time well, and provided feedback on the students' work. After the entire learning process was completed, a post-test was conducted to measure student learning achievement after implementing the mind mapping method. The post-test results were then used to determine the level of improvement in student learning outcomes after the treatment.

To gather research information, researchers require data obtained through specific collection steps. The data collection techniques used were tests and documentation. The instruments used were tests and documentation instruments, including a cellphone camera. Normalized Gain was used for data analysis. "Gain" literally means "increase."

The gain used is Richard Hake's Normalized Gain, with the following formula: (Hake, 1998)

$$G = \frac{(skor\ posttes - skor\ pretest)}{(skor\ maksimum - skor\ pretest)} \times 100\%$$

Furthermore, according to Hake, normalized gain is as follows:

Table. 1 Furthermore, according to Hake

Criteria	Gain
High	G ≥ 70%
Medium	70% > (G) ≥ 30%
Low	G < 30%

C. Finding and Discussion

1. Finding

Before implementing mind mapping

Before implementing mind mapping in the classroom, a pre-test was first conducted to determine the cognitive abilities and initial conditions of students before being given the learning treatment. This initial measurement, researchers found a clearer picture regarding the level of student understanding of the material to be studied. The pre-test instrument used consisted of 20 questions with a scoring system using a scale of 0–100, where each student's answer was assessed and accumulated to produce a score. In addition to being an initial picture of the level of student understanding, this pre-test also served as a basis for comparison to determine the effectiveness of learning outcomes after the treatment was administered. The results of the student pre-test are as follows:

Table 2. Results Of The Student Pre-Test

Statistik	Pretest
N (Number of Students)	36
Range	45
Minimum Value	35
Maximum Value	80
Sum	2100
Mean	58.33
Standard Deviation	12.593
Variance	158.571

Before implementing mind mapping in the classroom, a pre-test was first conducted to determine the cognitive abilities and initial conditions of the participants. The pre-test output table shows that the total score of 36 students is 2100, the average score obtained by students before using the mind map method or the pre-test score is 58.33 with a standard deviation of 12,593. The lowest score obtained is 35 and the highest score obtained is 80. These results provide an overview of the initial abilities of students before the treatment is carried out in the learning process. Six of the 36 students scored at or above the minimum grade point average (KKTP) of 75. The remainder were either close to

or far from the minimum grade point average. This finding indicates that students' learning achievement levels at the initial stage are still relatively low.

After implementing mind mapping

After implementing the mind mapping method in the classroom learning process, the next stage was the implementation of a post-test as the final stage of the research. This post-test was conducted to determine the cognitive abilities and final conditions of students after being given the learning treatment. Through this final measurement, researchers obtained a clearer picture of the level of student understanding of the material that had been learned. The post-test instrument used consisted of 20 questions with a scoring system using a scale of 0–100, the same as the pre-test. Each student's answer was assessed and accumulated to produce a score that reflected the level of mastery of the material after the implementation of the mind mapping method. The results of the students' post-test are as follows:

Table 3. Students' Post-Test

Statistics	Pretest
N (Number of Students) 36	36
Range 30	30
Minimum Score 65	65
Maximum Score 95	95
Sum 2935	2935
Mean 81.53	81.53
Standard Deviation 7.821	7.821
Variance 61.171	61.171

The post-test output table shows that the total score of 36 students is 2935, the average score obtained by students before using the mind map method or the pretest score is 81.53 with a standard deviation of 7,821. The lowest score obtained is 65 and the highest score obtained is 95. These results provide an overview of the final abilities of students before the treatment is carried out in the learning process. as many as 7 of the total 36 students have a score below 75 as the KKTP. The rest are the same or exceed the specified KKTP. This finding shows that the level of student learning completeness at the final stage is already quite high.

The effectiveness of the Mind Mapping Method on learning achievement

The effectiveness test was then conducted using the Normalize Gain test formula. The Gain test was used to determine the extent of improvement in student learning achievement between before and after using mind mapping. The results of the Normalize Gain test, processed using SPSS 25.0, are as follows:

Table 4. Normalize Gain test

	N	Minimum	Maximum	Mean	Std. Deviation
N-Gain_Persen	36	33.33	80.00	56.3423	10.05882

This data is the average of all gain tests from the pre-test and post-test scores of 36 six students. The analysis results show that the improvement in learning achievement in the field of Islamic Cultural History through the application of the mind mapping method obtained an average score of 56% or 56.3423. When associated with the N-Gain assessment criteria, the test results fall into the moderate criteria, with the provision of 70% > (G) ≥ 30%. This shows that the use of the mind mapping method in the learning process has a fairly effective influence in improving student learning outcomes, although it has not yet reached the high category.

2. Discussion

This study demonstrates the effectiveness of the mind mapping method on student achievement in the History of Islamic Culture subject at eighth-grade MTsN Kepulauan Selayar. Based on the test results, the average pre-test score was 58.33, while the average post-test score was 81.53. These results indicate an average increase of 23.2 after the treatment. This indicates that student achievement experienced positive changes after the implementation of mind mapping. Thus, the mind mapping method was found to be effective in improving student achievement in the History of Islamic Culture subject at eighth-grade MTsN Kepulauan Selayar.

Both test scores in this study were tested for normality, with the results indicating that both were normally distributed, both pre-test and post-test. Before the treatment, the Asymp.Sig. (2-tailed) value was 0.144, while after the treatment, the post-test value was 0.343. Both values were greater than the 0.05 significance level ($p > 0.05$), thus concluding that the data were normally distributed. The Normalized Gain test showed that the use of the mind mapping method was effective in improving student learning achievement. This was based on the Normalized Gain test using pre-test and post-test data. Based on the N-Gain interpretation criteria, the value fell into the moderate category, ranging from $0.30 \leq G < 0.70$. This indicates that the application of the mind mapping method resulted in a significant improvement in student learning outcomes. This could be due to several factors, such as differences in initial student abilities, limited time for implementing the mind mapping method, and students' level of adaptation to the new learning method. Furthermore, some students still required guidance in independently compiling and developing mind maps, thus the method's effectiveness was not yet fully achieved. Therefore, although the mind mapping method significantly improved learning outcomes, the learning process still requires more intensive development and application to achieve high-level results.

Theoretically, the effectiveness of the mind mapping method can be explained by cognitive learning theory. This theory assumes that learning outcomes are internal events and involve highly complex thought processes (Afriani & Nurabadi, 2024). Bruner in (Muslimah & Fitria, 2023) explains that the learning process is said to be good when knowledge goes through three stages starting from object-based and Action (enactive), visualization-based or Image-based (iconic) and based on logic, mathematics, language, and abstract symbols (symbolic). So Ahmad & Jabbar (2026) explain that the ultimate goal of cognitivism is for humans to be able to free themselves from physical objects by manipulating symbols so that humans can understand metaphors, think logically, and reason hypotheses. On the other hand, the mind map method helps students visualize the relationship between concepts so that the brain can more easily process and store information. The use of colors, symbols, keywords, and branches of ideas in mind maps can also activate analytical and creative thinking skills simultaneously. This supports students in understanding the material of Islamic Cultural History which has many concepts and events in a more systematic and comprehensive manner.

The results of this study align with Elsa's findings in her research that using the mind mapping method can help students generate ideas, structure arguments, and develop a more logical and systematic structure of thought during the learning process. Furthermore, this method can encourage student-centered learning and create a more interactive learning environment, thereby increasing student motivation, engagement, and confidence during the learning process. Visualization, a component of mind mapping, can also make it easier for students to understand, remember, and connect the material learned comprehensively (Elsa, 2025).

Tony Buzan (Buzan, 2013), a renowned figure in the development of mind mapping, explains that mind mapping is a simple, effective, and enjoyable way to access, process, and express information. This is because mind mapping leverages the brain's extraordinary natural capacity to make connections and then store that information. Hillar (2012) explains that the mind mapping method is an effective method for helping organize students' thinking processes, particularly in writing activities, because educators only present the main points of the material, while students develop and write structuredly according to their understanding. This opinion aligns with the results of this study, which showed an increase in student achievement, particularly in the subject of Islamic Cultural History. This improvement in learning outcomes can be seen by comparing pre-test and post-test scores. In the pre-test, the lowest score obtained by students was 35, and the highest was 80. Meanwhile, after implementing the mind mapping method, the post-test results showed a significant increase, with the lowest score dropping to 65 and the highest to 95. These data indicate that the implementation of the mind mapping method has a positive impact on student achievement.

The mind mapping method in the learning process not only improves students' thinking skills but also develops critical thinking skills and encourages creativity and

innovation, which are highly needed in today's modern era (Faradiba & Bahri, 2024). The use of mind mapping as a method is also supported by Damayanti's explanation that many factors influence student abilities and, in turn, student success. These factors can be grouped into two groups: external factors influenced by the environment (learning environment, facilities and infrastructure, including learning aids) and internal factors derived from student personality (motivation, interests, and intellectual intelligence) (Damayanti, 2022). Mind mapping is among the internal factors that can influence student achievement.

During the learning process using the mind mapping method, researchers found that this method was able to provide a more enjoyable learning experience for students, resulting in a more conducive and active classroom atmosphere. This change made learning about Islamic Cultural History easier to understand and more engaging for students to follow. Furthermore, students appeared more enthusiastic and directly involved in the learning process. Rohmaniah et al., (2025) explained that increasing educator creativity in classroom management, such as implementing a student-centered approach and utilizing visual-based learning resources, can help create an effective learning environment. Both aspects are reflected in the use of the mind mapping method, as this method places students at the center of learning while utilizing concept visualization to facilitate material understanding.

E. Conclusion

Based on the results of a study conducted on eighth-grade students at MTsN Kepulauan Selayar, it can be concluded that the application of the mind mapping method was effective in improving student achievement in the subject of Islamic Cultural History (SKI). This was evidenced by an increase in students' average score from 58.33 in the pre-test to 81.53 in the post-test, representing a 23.20-point increase after the treatment. Furthermore, students' learning completion rates also experienced a significant increase. In the initial phase, only a small percentage of students achieved the minimum competency (KKTP) score, but after the application of the mind mapping method, most students achieved and even exceeded the required KKTP score. The N-Gain test results showed an average score of 56.34%, which falls within the moderate category. Although not yet reaching the high category, these results indicate that the mind mapping method has a fairly effective influence on improving student learning outcomes. The moderate category of N-Gain results can be influenced by several factors, such as differences in students' initial abilities, limited time to apply the method, and students' adaptation process to the use of mind mapping in learning. Therefore, this method still requires more intensive development and implementation to achieve optimal learning outcomes.

Theoretically, the effectiveness of the mind mapping method is supported by cognitive learning theory, which emphasizes the importance of organizing and connecting information in learning. Through visualizing concepts using color, symbols, keywords,

and branches of ideas, the mind mapping method helps students understand, remember, and connect learning materials more systematically and comprehensively. The results of this study also align with several previous studies showing that the mind mapping method can improve students' conceptual understanding, creativity, critical thinking skills, and learning motivation. In addition to improving learning achievement, the application of the mind mapping method also has a positive impact on the classroom learning process. Students become more active, enthusiastic, and directly involved in learning activities, resulting in a more interactive and student-centered classroom atmosphere. Therefore, the mind mapping method can be used as an alternative, innovative and effective learning method, particularly in Islamic Religious Education and Islamic Cultural History.

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