Mind Mapping to Boost Elementary Students' Engagement in Islamic Cultural History

Mustajab[1], Gita Magfiroh[2]

{mustajab.bws@gmail.com[1], gitamagfiroh5@gmail.com[2]}

Universitas Islam Negeri Kiai Haji Achmad Siddiq Jember, Indonesia[12]

Abstract. This classroom action research explores the effectiveness of the Mind Mapping method in increasing student learning activity in Islamic Cultural History for Grade 6 elementary school students. The study aims to assess how mind maps influence students' engagement, understanding, and active participation during lessons. The research was conducted over four teaching cycles, each involving preparing lesson plans, implementing mind-mapping activities, and observing student behaviors. Data were collected through observation sheets, student questionnaires, and reflections. The results indicate that the Mind Mapping method significantly improved students' attention, motivation, and participation in class activities. Students reported higher levels of engagement and confidence in presenting their ideas, and observation data showed increased collaboration and creativity during group discussions. The study concludes that the Mind Mapping method successfully enhanced student learning activity, meeting the predetermined success criteria, and is highly recommended for use in other subjects to foster more dynamic and interactive learning environments.

Keywords: Active Learning, Mind Mapping, Islamic Cultural History

1 Introduction

Integrating innovative teaching methods in religious education has become increasingly pivotal in enhancing student engagement and cognitive development. One such method is mind mapping, a visual technique designed to facilitate the organization of information[1], stimulate creative thinking[2], [3], and support active learning processes[4], [5]. This study uses the mind mapping method to increase elementary school students' learning activity in Islamic Cultural History.

Religious education in Indonesia is framed by national policy, as evidenced by Government Regulation No. 55 of 2007. This regulation emphasizes the development of a comprehensive educational environment wherein students are prepared not only to understand and practice their religious values but also to become critical, creative, and innovative individuals who contribute positively to society.

Theoretically, the constructivist approach to learning underpins the rationale for employing mind mapping. Constructivism posits that learners construct knowledge through meaningful interactions with their environment and prior experiences[6]. By engaging students in the visual

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and interactive process of mind mapping, teachers can foster a learning environment that promotes deeper comprehension and retention of complex subject matter[1].

The mind mapping method effectively bridges the gap between abstract theoretical concepts and practical learning experiences. As Sbaa notes, mind mapping not only enhances students' imaginative capacity but also allows them to freely associate and integrate various pieces of information[1], [7]. This associative process is critical for subjects that require the synthesis of cultural and historical knowledge[8], [9], such as Islamic cultural history.

Complementing the constructivist perspective, Piaget's theory of cognitive development further reinforces the benefits of active learning strategies[10]. According to Piaget, the development of cognitive structures is intimately linked to a learner's active interaction with their surroundings[11]. In this context, the mind mapping method serves as a tool that encourages students to engage directly with course material, thus fostering cognitive growth through experiential learning.

Islamic Cultural History, as a subject, holds significant importance in shaping the moral and intellectual foundations of students[12]. However, traditional teaching methods often struggle to capture the dynamic nature of historical narratives and cultural contexts[13], [14]. In elementary school classrooms, where learners are in a formative stage, the challenge is to present Islamic Cultural History in an engaging and educationally effective manner.

Previous studies have demonstrated that mind mapping can lead to marked improvements in various aspects of student learning. Research conducted by Nashrulloh Rafif Izzuddin [15], Nur Alfin Hidayati[16], Indah Wahyuni[17], and Munir et al.[18] provides evidence that mind mapping increases concentration, activeness, and overall learning outcomes in diverse subjects. These studies predominantly employed classroom action research to evaluate the method's efficacy in mathematics, language, and religious studies.

Despite these promising findings, a research gap exists in the literature. Although the mind mapping method has been successfully implemented in various learning contexts, there is a noticeable paucity of research addressing its application specifically to Islamic Cultural History among elementary school students. Previous studies have either focused on other subject areas or have not fully explored the potential of mind mapping to activate student learning within Islam's cultural and historical dimensions.

Addressing this research gap is critical, as it offers the potential to enrich Islamic Cultural History education by providing a more interactive and memorable learning experience. By investigating the effect of mind mapping on student activity in a subject foundational to religious and moral education, this study aims to contribute empirical evidence that could inform teaching practices and educational policies within the context of religious education.

In light of the aforementioned considerations, the present study examines how the mind mapping method influences the learning activity of Grade 6 students in Islamic Cultural History. This research extends the application of mind mapping within a new subject area and proposes an alternative pedagogical approach that may address the challenges inherent in conveying complex historical narratives. In doing so, the study aims to offer insights that will support educators and policymakers in the continuous effort to enhance the quality and effectiveness of religious education.

2 Method

This study employs a classroom action research (CAR) framework to enhance learning activity in Islamic Cultural History among Elementary School students. The research follows the classroom action research model outlined by Kurt Lewin, which consists of cyclic phases—planning, action, observation, and reflection. This study implemented the phases in one cycle. The research team engaged in comprehensive planning by preparing detailed lesson plans, designing action strategies, and determining the instruments for data collection. The subsequent action stage involved the practical implementation of the mind mapping technique during the Islamic Cultural History lessons, where the interactive process between teachers and students was closely monitored. Following the action phase, the observation stage consisted of systematic documentation of both teacher and student activities, and the reflection phase involved evaluating the outcomes to determine the effectiveness of the intervention.

Data collection in this study was achieved through multiple techniques to ensure triangulation and depth of analysis. The researchers used direct classroom observations to record real-time interactions and changes in student behavior, semi-structured interviews to gain insights from teachers and students regarding the learning process, and documentation of lesson records, student assignments, and relevant artifacts. Additionally, questionnaires were administered to capture quantitative data reflecting students' perceptions and the degree of their active participation during the learning sessions. Combining these methods provided a robust data set, allowing for a comprehensive analysis that minimizes the influence of subjective bias.

Data analysis was conducted based on the performance indicators primarily centered on the degree of student activeness, which was operationalized as achieving an activeness threshold of 75% or higher, as determined by direct observations and corroborated by interview and questionnaire data. These indicators provided a measure of the intervention's impact and offered insights into the dynamics of student engagement with the mind-mapping method in the context of Islamic Cultural History.

3 Result

3.1 Planning

In the initial phase of this classroom action research, detailed preparations were made to ensure the successful implementation of the Mind Mapping method in learning Islamic Cultural History for Grade 6 students. First, the relevant learning materials were carefully selected and organized based on the curriculum standards and the specific competencies students expected to achieve. Emphasis was placed on significant historical periods, key figures in Islamic history, and significant cultural developments. The materials were then simplified into key concepts and central ideas suitable for creating mind maps, ensuring students could easily visualize and connect the historical information.

After selecting materials, a comprehensive lesson plan was developed for four meetings. Each meeting focused on one major topic, with clear objectives, specific activities, and assessment strategies aligned with mind maps. In each session, students would first receive a short, interactive explanation of the historical content. Then, they would be guided to identify the main

ideas and supporting details, forming the basis of their mind maps. The lesson plans were designed to gradually shift from teacher-led demonstrations of mind mapping to more student-centered activities, encouraging independent thinking and creativity by the final session.

Specific planning was carried out for the first meeting to effectively introduce the Mind Mapping method, including preparing sample mind maps related to Islamic Cultural History. These samples served as visual examples for students to understand how historical facts and concepts could be structured. Colored markers, large sheets of paper, and other supporting materials were also prepared to engage the mind-mapping activities and stimulate students' interest. Additionally, guidelines and steps for creating mind maps were explained clearly and practiced together in class during the initial stage.

Finally, observation sheets and self-assessment tools were developed to monitor and evaluate the progress of students' learning activities. These tools aimed to document student participation, understanding, and creativity throughout the learning process. Reflection journals were also prepared for the teacher to record observations after each meeting, which would help make necessary adjustments for the next cycle. This thorough and systematic planning phase laid a strong foundation for implementing mind mapping to increase learning activity in Islamic Cultural History lessons.

3.2 Acting

The action phase began with the first meeting, in which the concept and purpose of mind mapping were introduced to the students. The teacher explained that mind maps help organize ideas visually, making understanding and remembering information easier. Using a prepared sample mind map related to "The Life of Prophet Muhammad (PBUH)," the teacher demonstrated how a central topic could branch into subtopics such as his childhood, prophethood, important events, and key teachings. Students observed the step-by-step creation of the mind map, and the teacher emphasized using colors, images, and keywords to make the mind map more engaging and memorable.

In the second meeting, the focus shifted to guided practice. Students worked in pairs to create a mind map based on "The Spread of Islam During the Khulafaur Rasyidin Period." The teacher briefly explained the topic and highlighted the main events and figures involved. Students then identified the central theme and created branches representing important caliphs and their contributions. During the activity, the teacher circulated the classroom, providing support and prompting students to think critically about how the events were connected. Students were encouraged to use their creativity by adding drawings or symbols to represent historical events or figures.

The third meeting emphasized independent practice. Students were assigned to create individual mind maps on "Islamic Cultural Achievements During the Abbasid Dynasty." After a short discussion about key achievements in science, art, literature, and architecture, students began constructing their mind maps. This session allowed students to choose their structure and design freely, fostering ownership of their learning process. The teacher facilitated by answering questions, suggesting ways to improve clarity, and encouraging students to elaborate on details without overcrowding their mind maps.

In the fourth meeting, students presented their mind maps to the class. Each student had the opportunity to explain the connections they made and how they organized the information. This

sharing session served not only to strengthen their understanding but also to build their confidence and communication skills. The teacher provided feedback on how well the students captured the historical context and used mind-mapping principles such as clarity, organization, and creativity. Peers were also invited to ask questions, promoting a collaborative and interactive learning environment.

Throughout the four meetings, the teacher consistently observed student engagement, participation, and the quality of the mind maps produced. The activities transitioned from highly supported tasks to more independent and creative work, aligning with the objectives of increasing students' learning activity and comprehension of Islamic Cultural History. Mind mapping as a central learning method visibly encouraged active participation, critical thinking, and enjoyment in the learning process.

3.3 Observing

In the observing phase of this classroom action research, systematic observations were carried out to monitor and record the changes in students' learning activities after implementing the mind mapping method. The observation's primary focus was identifying how students engaged with the lesson, how actively they participated during discussions, their enthusiasm for creating mind maps, and their ability to visually express and organize historical information. Specific attention was also given to students' collaboration during group tasks, willingness to ask and answer questions, and creativity in designing their mind maps.

An observation sheet with clear indicators was prepared and used consistently across the four meetings to ensure a comprehensive and objective observation. The indicators included students' attention during lessons, questioning behavior, peer cooperation, creativity in constructing mind maps, ability to present their work, and overall enthusiasm. Each indicator was assessed qualitatively to capture the dynamics of classroom interactions and students' engagement. These observations were crucial to evaluating whether the mind mapping method could effectively increase students' active participation and involvement in the learning process of Islamic Cultural History.

Table 1. The Result of Observation for Students‘ Learning Activities

No	Observed Aspect	Indicator	Meeting 1	Meeting 2	Meeting 3	Meeting 4
1	Attention	Students listen actively and focus on the teacher’s explanation	✓	✓	✓	✓
2	Questioning	Students ask questions to clarify or expand their understanding	✓	✓	✓	✓
3	Cooperation	Students cooperate with peers during group/pair activities	✓	✓	✓	✓
4	Creativity	Students use colors, images, and personal ideas in mind maps	✓	✓	✓	✓

No	Observed Aspect	Indicator	Meeting 1	Meeting 2	Meeting 3	Meeting 4
5	Presentation	Students confidently present and explain their mind maps			✓	✓
6	Enthusiasm	Students show enthusiasm and enjoyment during activities	✓	✓	✓	✓

The observation results showed a significant increase in students' active participation throughout the four meetings. In the first meeting, students demonstrated great attention while explaining the mind-mapping technique. Although passive when questioning and contributing ideas, they followed the examples attentively. In the second meeting, students became more interactive during the guided group work. They asked questions about organizing information and enthusiastically discussed ideas with their partners. Cooperation among peers was evident, indicating growing engagement with the learning method.

In the third meeting, when students were asked to create their mind maps independently, their creativity began to flourish. Many students used different colors, drew simple illustrations, and organized their mind maps neatly, showing they had internalized the method. Some students took the initiative to ask questions without being prompted, reflecting more profound curiosity and critical thinking. By the fourth meeting, students had completed their mind maps and presented them confidently. They explained their ideas clearly and responded actively to the teacher's and their peers' questions. The observations confirmed that mind mapping successfully stimulated active learning, participation, and enthusiasm in Islamic Cultural History lessons.

Furthermore, in this stage, a set of questionnaires was administered to the students to perceive their students' perceptions and the degree of their active participation during the learning sessions. Using the Mind Mapping method, the questionnaire was designed to measure various aspects of students' perceptions and active participation in the learning process. The indicators focused on key areas such as attention (e.g., "I paid more attention to the lessons when using mind maps"), understanding (e.g., "Mind mapping helped me understand Islamic Cultural History better"), and motivation (e.g., "I felt more motivated to join classroom activities using mind maps"). These indicators assessed students' perceived engagement and enthusiasm, which is essential in understanding how the mind-mapping method influences their learning behavior. Additionally, the questionnaire included questions about confidence (e.g., "I felt confident when presenting my mind map in front of the class"), active involvement (e.g., "I was actively involved in group discussions during mind mapping"), and the effectiveness of the visual elements (e.g., "The use of colors and images in mind maps helped me remember materials"). These indicators collectively aimed to capture the degree to which students were actively engaged and how they felt about the effectiveness of the Mind Mapping method in enhancing their learning experience. The result of the questionnaire can be seen in the following table.

Table 2. The result of the Questionnaire for Students' Learning Activities

No.	Statement	Average Score
1	I paid more attention to the lessons when using mind maps.	4.6
2	Mind mapping helped me understand Islamic Cultural History better.	4.5
3	I felt more motivated to join classroom activities using mind maps.	4.4
4	I was actively involved in group discussions during mind mapping.	4.3
5	I felt confident when presenting my mind map in front of the class.	4.2
6	The use of colors and images in mind maps helped me remember materials.	4.7
7	I prefer learning with mind maps to just listening to lectures.	4.5
8	I participated more actively than in previous lessons.	4.4

The results from the questionnaire indicate that students had a highly positive perception of the Mind Mapping method. The average scores across the various statements ranged from 4.2 to 4.7, with the highest score of 4.7 for the statement: "The use of colors and images in mind maps helped me remember materials." That shows that students found mind mapping to be a creative and effective tool for understanding and remembering Islamic Cultural History. Additionally, the score of 4.6 for the statement "I paid more attention to the lessons when using mind maps" suggests that mind mapping enhanced students' focus and engagement during the lessons.

The observations conducted during the teaching sessions reflected similar patterns. According to the observation sheet, students consistently demonstrated increased attention (as indicated by a score of "✓" across all meetings), active participation in group discussions, and creativity in creating their mind maps. This positive observation trend correlates well with the students' responses regarding their perceived motivation (4.4) and active involvement (4.3) in classroom activities. The alignment between both data sets confirms that the students' self-reported perceptions were accurate and reliable.

The data also highlighted a significant increase in students' confidence when presenting their mind maps, with an average score of 4.2 on the questionnaire. It is in line with the observation that students presented their mind maps by the fourth meeting easily, demonstrating a higher level of comfort with the material and the learning process. Furthermore, the active participation (4.4) and preference for learning through mind maps (4.5) seen in the questionnaire results directly correlate with the cooperative behaviors observed in students during group work, indicating that students were not only willing to engage with the method but preferred it over traditional lecture-based learning.

In conclusion, the positive correlation between the questionnaire data and the observation sheet results proves that mind mapping enhanced student engagement and active participation in learning Islamic Cultural History. The students' perceptions, as reflected in the questionnaire,

were corroborated by the observable changes in their behaviors, supporting the success of the action research in achieving its intended goals.

3.4 Reflecting

Based on the results obtained from the planning, acting, and observing stages, implementing the Mind Mapping method in learning Islamic Cultural History for Grade 6 students was successful. In the planning phase, carefully preparing learning materials, lesson plans, mind-mapping samples, and observation instruments ensured that the teaching and learning process ran systematically and effectively. Every aspect of the planning was focused on maximizing student engagement and creating an interactive learning environment, which provided a solid foundation for the subsequent stages of the research.

The mind-mapping activities were successfully integrated into each meeting during the acting stage. Students gradually progressed from observing examples, practicing in pairs, and creating individual mind maps to presenting their work confidently. Throughout these activities, students demonstrated an increased understanding of the historical context and notable improvement in their ability to organize and express information creatively. Mind mapping encouraged students to actively participate, collaborate with peers, and take ownership of their learning process. The structure of the activities allowed students to become more independent and confident as learners.

The observations recorded throughout the four meetings confirmed the positive impact of the action taken. According to the observation sheet, students consistently met the indicators of active learning, such as paying attention, asking questions, cooperating during activities, applying creativity in their mind maps, and presenting their work enthusiastically. The overall classroom atmosphere became more dynamic and lively, with students showing greater motivation and interest in the subject matter. There was a visible transformation from passive reception to active engagement among most students.

Reflecting on the findings from all three stages, it is clear that the success criteria set for this classroom action research—namely, improving students' learning activity—have been fully met. The students became more active and developed essential skills such as critical thinking, creativity, and communication. Given the significant improvement and the consistency of the positive results, it is concluded that there is no need to continue the research into a second cycle. The goals of the action research have been achieved effectively within the first cycle.

Therefore, this study demonstrates that the Mind Mapping method can serve as an effective strategy to enhance student learning activities in Islamic cultural history lessons. Future teaching practices may continue to adapt and refine this approach, integrating visual learning strategies like mind mapping further to support student engagement and academic achievement across various subjects.

4 Discussion

The results of this classroom action research show that the Mind Mapping method significantly enhanced the learning activity of Grade 6 students in the Islamic Cultural History subject. This finding aligns with Buzan's theory that mind mapping engages both the logical and creative

sides of the brain[19], promoting better retention and deeper understanding of the material. Mind maps' visual and structured nature allowed students to organize historical facts meaningfully, making comprehending and recalling the information easier. The consistent observation results showing increased attention, questioning, cooperation, and creativity confirm that mind mapping creates an active learning environment, as suggested by Buzan and Buzan[20].

This research also supports previous studies' findings that highlight mind mapping's effectiveness in improving student engagement and academic performance. For example, Hazaymeh and Khalaf (2022) found that mind mapping significantly improved students' reading comprehension and critical thinking skills[21]. Similarly, Cooper and Zimmerman (2020) emphasized that mind mapping helps students synthesize complex information and visualize concept relationships [22], leading to better learning outcomes. In this study, students were able to memorize key historical events and explain connections between historical figures, events, and cultural achievements, demonstrating a deeper understanding.

In addition, the study confirms the relevance of the Constructivist Learning Theory proposed by Vygotsky (1978), which asserts that learning is most effective when students actively construct knowledge through interaction and collaboration[10], [23]. During the mind-mapping activities, students engaged with their peers, asked questions, and built knowledge together[4], [24], reflecting the social nature of learning emphasized by Vygotsky[23], [25]. The transition from teacher-centered instruction in the early meetings to student-centered learning by the fourth meeting mirrors the constructivist model of scaffolding, where teacher support gradually decreases as students gain independence[26]–[28].

The results of this study are also consistent with the findings of Irina Odaryuk (2021) and Tverezovska et al. (2020), who concluded that mind mapping enhances classroom participation and increases motivation to learn[29], [30]. Similarly, Feng, Alsager, Azizi, and Sarabani (2023) reported that students who used mind-mapping strategies exhibited higher levels of motivation and better retention of information compared to those who used traditional note-taking methods[31]. In the current study, students' enthusiasm, active involvement in discussions, and creativity in mind-mapping activities suggest that mind-mapping can foster intrinsic motivation to learn.

Finally, this study strengthens the view that mind mapping is an effective method for various subjects and educational levels, as suggested by research conducted by Ahmed et al. (2022) and Astra (2023), who demonstrated that mind mapping improves learning outcomes across different fields[32], [33]. The success of mind mapping in the context of Islamic Cultural History shows that this method is flexible and can be adapted to subjects that require understanding sequences, relationships, and detailed concepts. Therefore, future research and practice in education could explore further applications of mind mapping to diversify learning strategies and enhance student engagement across a broader range of disciplines.

5 Conclusion

This classroom action research concludes that using the Mind Mapping method effectively increased the learning activity of Grade 6 students in the Islamic Cultural History subject. Students significantly improved attention, participation, creativity, and enthusiasm through

careful planning and systematic action. The observation results indicated that students actively engaged in discussions, collaborated in groups, created organized and colorful mind maps, and confidently presented their ideas. These outcomes confirm that the success criteria—enhancing students' learning activity—were fully met, making it unnecessary to continue to a second research cycle.

In addition, the findings align with previous studies and educational theories supporting the effectiveness of mind mapping in fostering active learning, critical thinking, and better content retention. The results demonstrate that mind mapping is a tool for organizing knowledge and a strategy for creating a more dynamic and student-centered classroom environment. Therefore, the Mind Mapping method is highly recommended for wider implementation in history lessons and other content-heavy subjects to enhance student engagement and achievement.

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