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## **Application of *Mind Map* Learning Methods in Fiqh Subjects to Improve *Critical Thinking* Skills**

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### **ABSTRACT**

This study aims to improve students' critical thinking skills through the application of the Mind Map learning method in Fiqh lessons in class XI MIA 3 MAN 2 Kota Parepare. This study uses a classroom action research (CAR) approach carried out in two cycles, each consisting of the planning, implementation, observation, and reflection stages. The research subjects were students in class XI MIA 3 MAN 2 Kota Parepare. Data collection techniques included observation of learning implementation and essay tests to measure students' critical thinking skills. The data were analysed descriptively, quantitatively, and qualitatively. The results showed that the application of the Mind Map learning method could improve the quality of learning implementation and students' critical thinking skills. The average score for students' critical thinking skills in the pre-cycle was 57.18, increasing to 74.6 in cycle I and reaching 85 in cycle II. In addition, the results of the observation of learning implementation also increased from a score of 73.3 in cycle I to 93.3 in cycle II, thus meeting the established performance indicators. Based on these results, it can be concluded that the Mind Map learning method is effective in improving students' critical thinking skills in Fiqh lessons. This method encourages active student involvement, helps organise concepts, and trains critical thinking skills in the learning process.

**Keywords:** Mind Map, Critical Thinking, Fiqh, Classroom Action Research



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### **INTRODUCTION**

Islamic Religious Education (IRE) is a conscious and planned effort to guide students to have a comprehensive understanding, appreciation, and practice of Islamic teachings. One of the subjects in PAI that plays an important role in shaping students' religious mindsets and attitudes is Fiqh. Through Fiqh lessons, students are expected to be able to understand the rules of Islamic law and apply them in their daily lives rationally and responsibly.

*Critical thinking* skills are one of the important competencies that need to be developed in Fiqh learning. Sudiarta states that critical thinking skills are skills that must be developed by students (Sudiarta 2007). states that critical thinking encourages students to actively ask questions, analyse problems, and make decisions logically and systematically. In line with the mandate of the 2013 Curriculum, critical thinking skills are essential skills that students must possess in all subjects as preparation for facing global challenges and community life.

However, the reality on the ground shows that students' critical thinking skills are still relatively low. Initial observations and interviews with Fiqh subject teachers in class XI MIA 3 MAN 2 Kota Parepare show that students have difficulty formulating problems, explaining concepts coherently, and completing tasks analytically. This condition is also reflected in the learning evaluation results, where most students have not achieved learning completeness.

The low critical thinking skills of students are partly influenced by the use of teaching methods that tend to be monotonous and do not involve student participation. Therefore, learning innovations are needed that can create an active, creative, and meaningful learning atmosphere. One method to further develop students' critical thinking skills is through the use of creative learning in the learning process, namely the Mind Map method, which is considered to have the potential to develop critical thinking skills (Wahyuni et al. 2022).

The *Mind Map* method helps students organise ideas, link concepts, and visualise learning materials systematically. The process of compiling a Mind Map not only requires an understanding of the material but also trains students to think analytically and creatively, which are part of critical thinking skills. Based on these conditions, this study aims to examine the application of the Mind Map learning method in Fiqh lessons and its effect on improving the critical thinking skills of grade XI MIA 3 students at MAN 2 Parepare City.

## **METHOD**

This study used a Classroom Action Research (CAR) approach with the Kemmis and McTaggart model, which consists of the stages of planning, action, observation, and reflection. The research was conducted in two cycles, where each cycle was carried out through continuous improvement based on the results of the previous cycle's reflection (Yudiana 2015).

### **Research Subjects and Location**

The research subjects were 32 students in class XI MIA 3 at MAN 2 Parepare City. The selection of subjects was based on preliminary observations that showed low critical thinking skills among students in Fiqh learning. The research was conducted at MAN 2 Parepare City, South Sulawesi Province, from December 2022 to January 2023.

### **Research Procedures**

Research procedures can be defined as rational and appropriate methods used by researchers to fulfil research aspects. With these research procedures, the research will be more focused (Muchlis 2011). In each cycle, learning activities were carried out by applying the Mind Map learning method to the subject of Fiqh. The planning stage included the preparation of a Mind Map-based lesson plan, the provision of observation instruments, and the preparation of essay tests. The action stage was carried out through learning activities that actively involved students in group discussions, the preparation of Mind Maps, and the presentation of discussion results. The observation stage was conducted to observe the implementation of learning and student activities, while the reflection stage was used to evaluate the results of the action and plan improvements for the next cycle.

### **Data Collection Techniques**

Research data was collected through observation, tests, and documentation (Kunandar 2011). explains that observation is a data collection technique that involves paying attention to every event and taking notes on what is being studied. Observation was used to determine the implementation of learning using the Mind Map method and

the activity of students. Essay-based tests were administered at the end of each cycle to measure students' critical thinking skills. Documentation included lesson plans, photos of learning activities, and other supporting data.

### Research Instruments

The research instruments were observation sheets and essay test sheets. The test sheets were compiled based on critical thinking ability indicators, which included: (1) providing basic explanations, (2) determining the basis for decision making, (3) drawing conclusions, (4) providing further explanations, and (5) estimating and combining information. Scoring is carried out using a rubric with a score range of 0–4 according to the completeness and accuracy of the answers. (Mardiyah 2018)

### Data Analysis Techniques

Data were analysed using descriptive qualitative analysis. Observation data were analysed to assess the implementation of learning, while test data were analysed to determine the improvement in students' critical thinking skills based on average scores and learning completeness. The minimum completion criteria (KKM) for the subject of Fiqh were set at 75, with the indicator of success being that most students achieved or exceeded the KKM and the implementation of learning was in the good category.

## RESULTS AND DISCUSSION

### Research Results

#### *Overview of Critical Thinking Skills of Grade XI MIA 3 MAN 2 Parepare City Students in Fiqh Subject*

##### a. Pre-cycle

In the pre-cycle stage, the *critical thinking* skills of students were still relatively low. This was indicated by an average score of 57.18, with a mastery rate of only 40.62%, while the Minimum Mastery Criteria (KKM) set was 75. The following is the KKM:

Table 1. MCC Scores at MAN 2 Parepare City

Score	Grade
$91 \leq N \leq 100$	Very Good
$82 \leq N < 91$	Good
$75 \leq N < 82$	Fair
$N < 75$	Poor

This condition indicates that most students are not yet able to analyse problems, express opinions, and draw logical conclusions in Fiqh learning.

Table 2. Recapitulation of Pre-Cycle Test Scores

Pre-cycle/Initial Condition	
Average Score	57.18
Number of Students Who Passed	13
Number of Incomplete	19
Percentage of Completed	40.62
Percentage of Incomplete	59.37

Based on this data, the researcher hopes that critical thinking skills in class XI MIA 3, particularly in the subject of Fiqh, can be improved by implementing the Mind Map learning method as an effort to enhance the students' abilities.

**b. Cycle 1**

From the table above, the critical thinking skills of the students are classified as poor and have not yet reached the success indicator of 75. Of the 32 students in class XI MIA 3, 17 students have achieved mastery and 15 students have not yet achieved mastery. Furthermore, the following is a summary of the Cycle I test scores for class XI MIA 3 in the subject of Fiqh.

Table 3. Recapitulation of Cycle I Test Scores

Cycle I	
Average Score	74.6
Number of Students Who Passed	17
Number of Incomplete	15
Percentage of Completed	53.12
Percentage of Incomplete	46.87

Based on the data, the critical thinking skills of grade XI MIA 3 MAN 2 Parepare City students have not yet reached the performance or success indicator of 75. From the results obtained, the researcher continued the action by making improvements to the weaknesses of cycle I to be followed by actions in cycle II.

**c. Cycle II**

From the recapitulation of the students' essay test results in cycle II, they have achieved the Critical Thinking criteria. The average competency score of students from the cycle II essay test results is 85. From the KKM score, the students' Critical Thinking ability is in the sufficient category or predicate and has reached the success indicator of 75. Of the 32 students in class XI MIA 3, 24 students had achieved mastery and 8 other students had not yet achieved mastery. Furthermore, the recapitulation of the Cycle II test scores for class XI MIA 3 in the subject of Fiqh can be seen below.

Table 4. Recapitulation of Cycle II Test Scores

Cycle II	
Average Score	85
Number of Students Who Have Achieved Mastery	24
Number of Incomplete	8
Percentage of Completed	75
Percentage of Unfinished	25

Based on the data, the critical thinking skills of grade XI MIA 3 MAN 2 Parepare students have achieved the performance or success indicators. The results of the actions taken in cycle II are in line with the success indicators, so the actions are considered complete.

The following graph illustrates the critical thinking skills of students from the pre-cycle to cycle II.

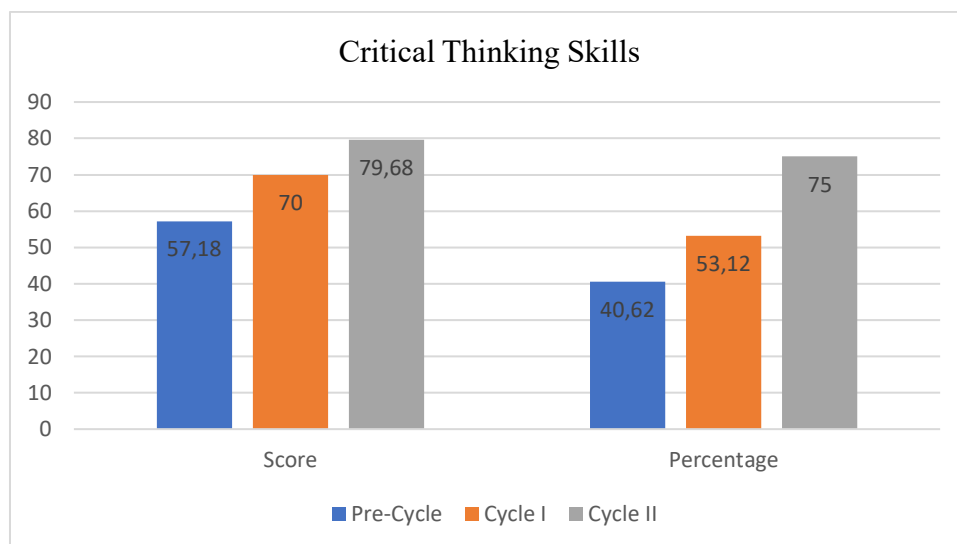


Figure 1. Critical Thinking Skills

### ***Application of the Mind Map Learning Method in the Fiqh Subject in Class XI MIA 3 MAN 2 Parepare City***

#### **a. Pre-cycle**

In the pre-cycle stage, the researcher conducted initial observations of the implementation of Fiqh learning in class XI MIA 3 MAN 2 Parepare City. The results of the observation showed that the Fiqh subject teacher still predominantly used the lecture method in the learning process and had never applied the Mind Map learning method. This learning pattern tended to be one-way and did not involve student activity.

The continuous use of the lecture method resulted in low interest and participation among students in the learning process. Students appeared unenthusiastic, had difficulty understanding the material, and were unable to ask questions or express their opinions during the learning process. This condition was not in line with the requirements of the 2013 Curriculum, which emphasised active learning and the development of critical thinking skills.

#### **b. Cycle I**

In cycle I, the researcher applied the Mind Map learning method to the subject of Fiqh in class XI MIA 3 MAN 2 Kota Parepare. The material discussed was the chapter on marriage, which was carried out in two meetings. The implementation of the action referred to the Kemmis and McTaggart Classroom Action Research model, which included the stages of planning, implementation, observation, and reflection.

In the planning stage, the researcher prepared learning tools in the form of a Lesson Plan (RPP), teaching materials, observation instruments, and assessment instruments to measure the critical thinking skills of students. Next, in the implementation stage, learning was carried out by applying the Mind Map method through group discussion activities. Students were divided into small groups to compile concept maps based on predetermined topics, then present the results of their group discussions.

The observation results in cycle I showed that student involvement in creating Mind Maps was still not optimal. Most students were not confident in presenting the results of their discussions, so teachers still needed to provide intensive guidance and direction. Based on the observation results, the implementation of learning in cycle I received a score of 73.33, which was in the sufficient category but did not reach the predetermined success indicator of  $\geq 80$ .

The reflection stage revealed several obstacles in the implementation of cycle I, including: students did not fully understand the relationship between concepts in the Mind Map, the teacher's explanation of the discussion steps was not structured enough, and the management of students' attention was not optimal. Therefore, improvements were needed in cycle II so that the application of the Mind Map method could run more effectively and be able to optimally improve students' critical thinking skills.

### **c. Cycle II**

In cycle II, the researcher reapplied the Mind Map learning method to the subject of Fiqh in class XI MIA 3 MAN 2 Kota Parepare with the material on Divorce. The implementation of cycle II was carried out in two meetings and was an improvement on the implementation of cycle I based on the results of the previous reflection.

The planning stage in cycle II focused on improving learning strategies, particularly in providing more structured explanations on the use of Mind Maps, increasing the involvement of all group members, and strengthening classroom management. The learning tools prepared included lesson plans, teaching materials, observation instruments, and instruments for assessing students' critical thinking skills.

In the implementation stage, the Mind Map method was applied through more focused group discussions. Students not only compiled concept maps, but also actively presented the results of group discussions and took turns discussing subtopics of the material. Learning was more interactive than in cycle I.

The results of observations in cycle II showed an improvement in the quality of learning implementation. Student participation in discussions and presentations was more evenly distributed, and their understanding of the concepts presented through Mind Maps improved. Based on the results of observations, the implementation of learning in cycle II scored 86.6, which was in the good category and exceeded the predetermined success indicator of  $\geq 80$ .

Based on the reflection results, the application of the Mind Map learning method in cycle II was considered effective in improving the quality of the Fiqh learning process and the critical thinking skills of students. With the achievement of the success indicator, the implementation of the action was stopped in cycle II.

## ***Improvement in Students' Critical Thinking Skills in the Application of the Mind Map Learning Method in Fiqh Lessons in Class XI MIA 3 MAN 2 Parepare City***

### **a. Pre-Cycle**

The critical thinking skills of students in the pre-cycle (before the action) were still far from reaching the success indicators. This was shown by the results of the analysis of the pre-action test data, where the average score of student mastery was 57.18 (40.62%).

### **b. Cycle I**

In cycle I, students' critical thinking skills showed an initial improvement compared to the pre-cycle. The average score of students increased to 74.6 with a mastery percentage of 53.12%, up from 40.62% in the pre-cycle. Despite this improvement, the achievement did not meet the predetermined success indicators.

The implementation of Fiqh learning using the Mind Map method in Cycle I obtained a score of 73.3, which is considered adequate, but it also did not meet the performance indicators.

**c. Cycle II**

The implementation of learning using the Mind Map method in cycle II showed optimal results with a score of 86.6 (good category) and met the performance indicators. In line with this, the students' critical thinking skills also experienced a significant increase with an average score of 85 (good category) and exceeded the predetermined success indicators.

Based on the overall data, there was a consistent and significant improvement from the pre-cycle to Cycle I to Cycle II, both in terms of learning management and the critical thinking skills of the students. While in Cycle I both aspects did not meet the success indicators, after the implementation of Cycle II, both successfully met the set indicators, as shown in the summary of the data processing results.

Table 5. Summary of Data Processing Results

Success Indicators/Cycle	Learning Implementation	Critical Thinking Skills
Success Indicators	80	75
Pre-cycle	-	57.18
Cycle I	73.3	74.6
Cycle II	86.6	85

Based on the data processing results, in the pre-cycle stage, there were no learning implementation scores because the researcher only observed the learning methods used by teachers. In cycle I, learning implementation scored 73.3 (sufficient category), and students' critical thinking skills had not yet reached the success indicators.

In contrast, in cycle II, the students' critical thinking skills showed a significant increase compared to the pre-cycle and cycle I. This was indicated by a student completion rate of 75% (24 students) with an average score of 85. This achievement shows that cycle II has met the success indicators and has become the final cycle with optimal learning outcomes. The following is a graph showing the improvement in students' critical thinking skills.

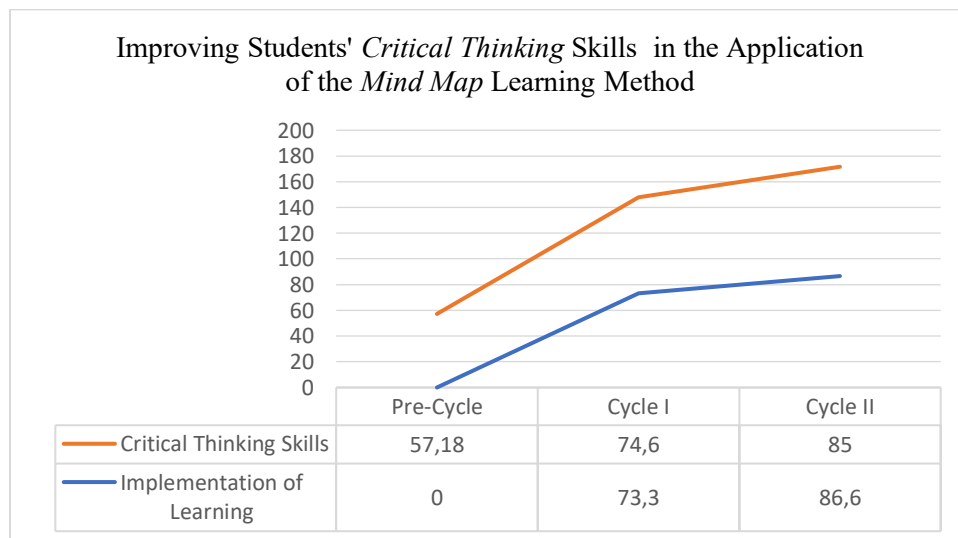


Figure 2. Improvement in Student's Critical Thinking Skills

## Discussion

### Overview of the *Critical Thinking Skills* of Grade XI MIA 3 MAN 2 Parepare Students in Fiqh

Students' critical thinking skills showed a gradual increase in each action, from the pre-cycle to cycle II. This increase occurred in line with the increase in students' active involvement in the learning process, particularly through discussion activities that required problem analysis, logical reasoning, evidence evaluation, and consideration of various perspectives (Simarmata et al. 2020). This process is in line with the concept of critical thinking as stated by (Chatfield 2022), which emphasises an individual's ability to analyse problems rationally and make decisions based on logical assessment. Students' ability to solve problems given by teachers is an indicator of the development of critical thinking skills.

This improvement in critical thinking skills is also influenced by several supporting factors, including effective classroom management, the use of varied learning methods, the creation of active interaction between teachers and students, and the implementation of targeted learning evaluations. This finding is supported by the research entitled (Akbar and Fitri 2019), which states that the development of critical thinking requires learning methods that are able to actualise the potential, attitudes, and involvement of students optimally. Thus, teachers have a strategic role in preparing and training students' critical thinking skills continuously, so that they are able to face and solve various problems carefully and become a competent generation in the future.

### Application of the Mind Map Learning Method in Fiqh Subjects in Class XI MIA 3 MAN 2 Parepare City

The success of the learning process is largely determined by the teacher's ability to manage learning in the classroom effectively and participatively. Learning management that actively involves teachers and students has been proven to create learning that is not solely teacher-centred but places students as the main subjects in the learning process. Good learning planning and management contribute to increased motivation, engagement, and learning outcomes for students (Simatupang 2007).

In this study, learning management was designed through the application of the Mind Map learning method with group work. Students compiled mappings based on the topics of Marriage (cycle I) and Divorce (cycle II), then presented and discussed the results in turns. This activity encouraged active involvement, collaboration, and a deeper conceptual understanding.

The planning and management of learning were designed using a variety of learning methods (Panggabean et al. 2021). The results of the observation showed that the application of the Mind Map method was able to improve the quality of the learning process. The average score for learning implementation in cycle I was 73.3, increasing to 86.6 in cycle II. This increase indicates that the learning performance indicators in terms of process have been achieved and that learning has been carried out in accordance with the established plan. Thus, the Mind Map method has been proven effective in increasing student engagement and the quality of Fiqh learning management.

The increase in the percentage of application of the Mind Map learning method shows a positive relationship with the improvement in students' critical thinking skills. Critical thinking skills in this study were measured through an essay test consisting of five questions, which were given in each action cycle. The results of the analysis show that the average critical thinking skills of students increased in each cycle, indicating the effectiveness of the Mind Map method in training students' thinking skills.

## **Improvement in Students' Critical Thinking Skills in the Application of the Mind Map Learning Method in Fiqh Subjects in Class XI MIA 3 MAN 2 Parepare City**

Based on the analysis of critical thinking skills and learning management, it can be concluded that the application of the Mind Map method is able to improve students' critical thinking skills, especially in Fiqh subjects. This improvement shows that learning that is designed systematically and actively involves students is able to encourage the development of higher-order thinking skills.

The findings of this study are in line with the results of research by (Hidayat and Latifah 2018) which states that the application of Mind Mapping compiled by students themselves can build a line of thinking and improve critical thinking skills. Similarly, research by Panti et al. shows that Mind Maps are effective in helping students plan, organise ideas, solve problems, and increase creativity and focus in learning. In addition to improving critical thinking skills, the application of the Mind Map method also has an impact on increasing students' creativity and activity in learning. Students are able to generate various ideas quickly, establish relationships between concepts, and solve problems that arise during the learning process. This shows that Mind Maps not only function as a note-taking technique but also as a learning strategy that encourages independent knowledge construction (Herdin 2017).

Theoretically, Mind Maps help students organise information through keywords, visualisations, and relationships between ideas, thereby facilitating the process of storing and recalling information. As stated by Tony Buzan, Mind Maps are a note-taking method designed to optimise human thinking potential, particularly in developing critical and creative thinking skills (Darusman 2014). In its application, the Mind Map method guides students to discover learning concepts for themselves through the stages of orientation, tracking, confrontation, inquiry, accommodation, and transfer. This process emphasises the active involvement of students, dialogic learning, and a balance between the learning process and outcomes, thereby enhancing critical thinking skills in a sustainable manner (Swadarma 2013).

## **CONCLUSION**

Based on the analysis of the classroom action research data, it can be concluded that the application of the Mind Map learning method can improve students' critical thinking skills in Fiqh lessons in class XI MIA 3 MAN 2 Kota Parepare.

First, the critical thinking skills of students before the action were still relatively low. This was indicated by a pre-cycle average score of 57.18, which did not meet the competency achievement criteria. However, after implementing the Mind Map learning method, students' critical thinking skills gradually improved in each cycle, both in cycle I and cycle II.

Second, the application of the Mind Map learning method showed an improvement in the quality of learning management. In cycle I, the implementation of learning received a score of 73.3, which was categorized as sufficient but did not meet the set performance indicator of 80. After improvements were made in cycle II, the learning implementation score increased to 93.3, which was categorized as good and met the performance indicator.

Third, the application of the Mind Map learning method has been proven effective in improving students' critical thinking skills. The average score for critical thinking skills increased from 57.18 in the pre-cycle to 74.6 in cycle I, and increased again to 85 in cycle II, which is considered good. This increase shows that the Mind Map method is able to encourage active student engagement, assist in organising concepts, and train critical thinking skills in Fiqh learning.

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