



The Implementation of Digital Mind Mapping to Improve Students' Understanding of Family Law in Islam in Class XI-1 at MAN 1 Kota Semarang

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Abstract:

This study aims to analyze the effectiveness of implementing Digital Mind Mapping in enhancing students' understanding of Family Law in Islam in Class XI-1 at MAN 1 Kota Semarang. The research method used is Classroom Action Research (CAR) based on the Kemmis and McTaggart model, which consists of four stages: planning, action, observation, and reflection. Data were collected through comprehension tests, classroom observations, and interviews with students and teachers. The results indicate that the application of Digital Mind Mapping significantly improves students' understanding, as evidenced by the increase in average scores from the first to the second cycle. Students also demonstrated greater active participation in learning and a deeper comprehension of Islamic family law concepts. Moreover, the use of digital media made the learning process more engaging and helped students better organize family law concepts. This study concludes that the Digital Mind Mapping method is effective in enhancing students' understanding of Islamic family law and can serve as an innovative approach in Fiqh education at Madrasah Aliyah.

Keywords: Digital Mind Mapping, Islamic Family Law, Student Understanding, Classroom Action Research (CAR), Fiqh Learning.

INTRODUCTION

Students' understanding of Islamic family law is an essential aspect of Fiqh learning in Madrasah Aliyah, particularly in shaping an applicable Islamic worldview. Family law encompasses various aspects such as marriage, divorce, inheritance, and financial support, all of which have direct implications for social life. However, in practice, many students struggle to grasp these concepts due to the lecture-based teaching method, which lacks visual approaches that can enhance comprehension (Huda, 2022).

With the advancement of educational technology, innovation in teaching methods has become a necessity. One increasingly popular approach in education is Mind Mapping, a method developed to help students organize and understand information more

systematically (Buzan, 2018). With digital technology, Digital Mind Mapping has now become a more interactive and accessible tool for students, thus improving their comprehension and retention of lesson materials (Hassan et al., 2021).

Although various studies have highlighted the benefits of Digital Mind Mapping across different disciplines, its application in Fiqh learning, particularly in Islamic family law, remains limited (Rahmawati & Setiawan, 2021). Most madrasahs still rely on conventional teaching methods that do not accommodate students' diverse learning styles (Widodo & Mulyani, 2022). Research by Ismail and Fauzi (2023) found that Digital Mind Mapping enhances student comprehension in other subjects, yet its implementation in Fiqh education is still scarce.

This gap underscores the need for further research on the effectiveness of Digital Mind Mapping in teaching Islamic family law in madrasahs. A study by Supriyadi et al. (2020) revealed that integrating technology in education can enhance student engagement, yet teacher readiness and infrastructure availability remain major challenges. Therefore, this research aims to fill this gap by examining how Digital Mind Mapping can be effectively implemented in Fiqh education at MAN 1 Kota Semarang.

This study aims to analyze the effectiveness of Digital Mind Mapping in enhancing students' understanding of Islamic family law in class XI-1 at MAN 1 Kota Semarang. The primary focus is to assess how well this method improves students' comprehension and how teachers and students respond to its implementation in the learning process. According to Hasanah and Prasetyo (2022), digital-based Mind Mapping helps students grasp complex concepts more easily, enabling more effective learning.

The main issue in this study is how Digital Mind Mapping can address challenges in understanding the complex concepts of Islamic family law. Additionally, this research seeks to explore the factors that support or hinder the successful implementation of this method, both technically and pedagogically (Sutrisno & Lestari, 2023).

To achieve these objectives, this study will employ a qualitative approach with a case study method at MAN 1 Kota Semarang. Data will be collected through classroom observations, interviews with teachers and students, and analysis of learning outcomes before and after the implementation of Digital Mind Mapping (Sugiyono, 2019). The findings are expected to provide recommendations for teachers in developing more effective and technology-based teaching methods.

Thus, this research is expected to contribute to the development of learning innovations in madrasahs, particularly in Fiqh education. The implementation of Digital Mind Mapping is anticipated to enhance the effectiveness of learning and bridge the gap between conventional teaching approaches and the need for technology-based education in today's digital era (Arsyad, 2020).

METHODS

This study employs a qualitative approach using the Classroom Action Research (CAR) method, focusing on the implementation of Digital Mind Mapping to enhance students' understanding of Islamic Family Law. Data were collected from students of class XI-1 at MAN 1 Kota Semarang through observations, interviews, and comprehension tests. According to Arikunto (2019), data sources in educational research can be classified into primary and secondary data. The primary data in this study were obtained directly from students and teachers through classroom interactions, while secondary data consisted of learning documentation and references from related journals and books.

The data analysis technique in this study follows the interactive analysis model developed by Miles and Huberman (2014), which consists of three main stages: data reduction, data presentation, and conclusion drawing. Data reduction involves selecting, simplifying, and organizing data obtained from observations, interviews, and students' comprehension tests before and after using Digital Mind Mapping. Subsequently, the

reduced data are presented in the form of tables, graphs, and narrative descriptions that illustrate the comparative effectiveness of the method before and after the intervention.

The final step in the analysis is drawing conclusions based on emerging patterns found in the data. Sugiyono (2019) emphasizes that conclusions in qualitative research should be drawn gradually and based on observable changes throughout the research process. Thus, the findings can provide a deeper insight into the effectiveness of Digital Mind Mapping in improving students' understanding of Islamic Family Law. This approach aligns with Creswell's (2021) perspective, which states that action-based educational research should be oriented toward directly solving learning problems. Therefore, the analysis in this study not only measures the effectiveness of the applied method but also identifies challenges and obstacles encountered during the learning process.

RESULTS

This study was conducted in class XI-1 at MAN 1 Kota Semarang, involving a total of 33 students. Data were obtained through observations, interviews, and comprehension tests administered before and after the implementation of Digital Mind Mapping in the learning process of Islamic Family Law.

The initial test results indicated that most students struggled to understand the concepts of family fiqh, particularly those related to marriage, inheritance, and divorce. This was evident from the pre-test scores, which showed that the majority of students scored below the minimum mastery criteria (KKM). After the intervention involving the use of Digital Mind Mapping, there was a significant improvement in students' comprehension, as reflected in the following post-test results:

Score Category	Number of Students Before Mind Mapping	Number of Students After Mind Mapping	Change (%)
0 - 50	9	2	-77.8%
51 - 70	16	7	-56.3%
71 - 85	5	14	+180%
86 - 100	3	10	+233.3%

From the table, it can be seen that before using Digital Mind Mapping, 25 students (75.8%) scored below 70, whereas after implementing this method, the number decreased to 9 students (27.3%). Conversely, students who scored above 70 increased from 8 students (24.2%) to 24 students (72.7%), indicating a significant improvement in comprehension.

Data Verification

The findings of this study were confirmed through interviews with students and teachers. Most students stated that the Digital Mind Mapping method helped them understand the concepts of Islamic Family Law more systematically and visually. Teachers also noted that this method made the learning process more interactive and enabled students to take a more active role in constructing their own understanding. Furthermore, observations during the learning process revealed that students were more engaged in discussions and found it easier to recall concepts they had created in the form of digital concept maps. These findings align with research conducted by Hasanah and Prasetyo (2022), which concluded that the use of Digital Mind Mapping in fiqh learning significantly enhances students' memory retention and comprehension.

To strengthen the research findings, triangulation analysis was conducted by comparing test results, observations, and interviews. According to Miles and Huberman (2014), triangulation in qualitative research is necessary to ensure data validity through multiple sources and different data collection techniques. Sugiyono (2019) also emphasized that validity in classroom action research can be achieved by combining quantitative and

qualitative methods, thereby producing more accurate and comprehensive results. This approach aligns with Creswell's (2021) perspective, which asserts that action-based educational research should focus on directly addressing learning challenges. Therefore, the findings of this study confirm that the implementation of Digital Mind Mapping can be an effective strategy in enhancing students' understanding of Islamic Family Law.

CONCLUSION

This study found that the implementation of Digital Mind Mapping significantly enhanced students' understanding of Islamic Family Law. Based on test results before and after applying this method, the number of students achieving scores above 70 increased from 24.2% to 72.7%. Additionally, classroom observations revealed that students became more active in discussions and developed a more systematic understanding of family law concepts. These findings align with the research by Hasanah and Prasetyo (2022), which confirmed that digital mind mapping helps students better organize and comprehend concepts. Academically, this research contributes to the effectiveness of technology-based learning in Islamic education. With clearer concept visualization, students can better grasp the relationships between marriage, divorce, and inheritance laws, as described in Davies' (2011) study. These findings also support constructivist theory, which emphasizes that effective learning occurs when students actively construct their own understanding (Sugiyono, 2019). In terms of implementation, the use of Digital Mind Mapping in madrasahs can serve as an innovative strategy to enhance student engagement in religious education. Given the increasing role of technology in education, this method offers an attractive alternative for teachers to deliver fiqh materials more interactively (Surahman & Mukti, 2021). Furthermore, the integration of technology in religious education can boost students' motivation to explore Islamic teachings more deeply. The social impact of this study is the increased interest of students in Islamic subjects through more engaging learning methods. With a technology-based approach, students who previously struggled with family law concepts now find it easier to understand. This supports the idea that innovation in teaching methods can overcome learning fatigue and enhance students' interest in Islamic knowledge (Creswell, 2021). Overall, this study demonstrates that the application of Digital Mind Mapping not only improves students' academic understanding but also fosters the development of a more adaptive and innovative religious education model. Therefore, the findings of this study can serve as a reference for educators in integrating technology into fiqh learning, resulting in more effective methods that align with students' needs in the digital era.

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