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Analysis Of The Utilization Of Mindmeister Visual Organizer Application In Building Students' Critical Thinking In Islamic Religious Education Learning

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A B S T R A C T

This study aims to: 1) Describe MindMeister visual organizer application, 2) Describe the use of MindMeister visual organizer application in learning Islamic Religious Education, 3) Summarize the implications of MindMeister visual organizer application on students' critical thinking in learning Islamic Religious Education. This research uses a qualitative approach with library research method. Data collection techniques by collecting books and scientific journal articles that are accurate and relevant to the topics discussed. The data collected was analyzed using the Miles and Huberman model through the stages of data reduction, data presentation, and conclusion drawing/verification. Then for data validation techniques is to involve triangulation techniques, namely checking and establishing validity by analyzing data from various perspectives. By using this triangulation technique, the data studied is complete and valid. This study shows that the utilization of MindMeister visual organizer application plays an active role in building students' critical thinking, especially in learning Islamic Religious Education. At the same time, learning Islamic Religious Education becomes effective and efficient. This study can be used as a reference in developing insights regarding the utilization of MindMeister visual organizer application in building students' critical thinking in Islamic Religious Education learning.

Keywords: *Mindmeister, Critical Thinking, Islamic Religious Education Learning*

A B S T R A K

Studi ini bertujuan untuk: 1) Mendeskripsikan aplikasi visual *organizer MindMeister*, 2) Mendeskripsikan penggunaan aplikasi visual *organizer MindMeister* dalam pembelajaran Pendidikan Agama Islam, 3) Memamparkan implikasi aplikasi visual *organizer MindMeister* terhadap berpikir kritis siswa pada pembelajaran Pendidikan Agama Islam. Penelitian ini menggunakan pendekatan kualitatif dengan metode *library research* (studi pustaka). Teknik pengumpulan data dengan mengumpulkan buku dan artikel jurnal ilmiah yang akurat dan relevan dengan topik yang di bahas. Data yang terkumpul di analisis dengan menggunakan model Miles dan Huberman melalui tahap reduksi data, penyajian data, dan penarikan kesimpulan/verifikasi. Kemudian untuk teknik validasi data adalah dengan melibatkan teknik triangulasi, yaitu memeriksa dan menetapkan validitas dengan menganalisis data dari beragam perspektif. Dengan menggunakan teknik triangulasi ini, data yang diteliti sudah lengkap dan valid. Studi ini menunjukkan bahwa pemanfaatan dari aplikasi visual *organizer MindMeister* berperan aktif dalam membangun berpikir kritis siswa khususnya dalam pembelajaran Pendidikan Agama Islam. Sekaligus pembelajaran Pendidikan Agama Islam menjadi efektif dan efisien. Studi ini dapat dijadikan sebagai acuan dalam pengembangan wawasan mengenai pemanfaatan aplikasi visual *organizer MindMeister* dalam membangun berpikir kritis siswa pada pembelajaran Pendidikan Agama Islam.

Kata Kunci: *Mindmeister, Berpikir Kritis, Pembelajaran Pendidikan Agama Islam*

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INTRODUCTION

One of the higher-order thinking skills that is getting greater attention in education is critical thinking. Critical thinking is no longer just a hope, but has become a major demand in the context of 21st century education (Fajrianthi et al., 2016). In an era where information is abundant and the complexity of the world is increasing, critical thinking skills become an essential foundation for students to be able to make reasoned and reflective decisions, and be able to evaluate the information they face in learning and everyday life (Ardiyanti). Critical thinking involves a deep intellectual process, which includes analysis, evaluation and reflection on ideas, arguments and concepts.

Essentially, critical thinking is a form of mental activity that goes beyond passively receiving information, but also involves deep understanding, mastery of the material, and the ability to analyze and evaluate. This includes the ability to identify, analyze, and evaluate arguments and claims, detect preconceptions or personal biases, and be able to design and present strong reasons to support conclusions (Sihotang and Kasdin, 2019). Critical thinking ability is not something static, but rather a skill that can be developed and improved over time.

The importance of critical thinking skills is not only limited to the educational context, but is also relevant in students' daily lives outside of school. Therefore, the development of critical thinking among students is a must, and schools have an important role in facilitating this development (Haida et al., 2022). Critical thinking skills should be the focus of curriculum development and teaching methods used by teachers.

However, challenges arise when trying to teach and develop students' critical thinking. Innovation in education is becoming increasingly important, and this is where technology plays a key role. One tool that can be used to help build critical thinking skills is innovative learning with MindMeister, a visual organizer app that allows students to create mind maps that visualize ideas, concepts, and relationships between various information.

A mind map is a diagram arranged hierarchically to represent words, ideas, tasks, or concepts that develop from one main center. Mind maps are used to summarize information, visualize concepts, group ideas, and aid in the learning process. Teachers can utilize this mind map as one of the assignment instruments for their learners. In an era where Science and Technology (Science and Technology) is rapidly developing, the use of technology in learning is becoming increasingly important. It opens the door to a wider exchange of information and knowledge, overcoming geographical and time barriers.

MindMeister application is one example of how science and technology has changed the way we approach learning. With this tool, teachers can provide learning materials in a more interesting and interactive manner, create a conducive learning environment, and save time and money in preparing learning materials (Munir, 2009). More importantly, however, is that MindMeister can be an effective tool in helping students develop their critical thinking skills.

The purpose of this study is to analyze the utilization of MindMeister visual organizer application in helping to build students' critical thinking skills in learning Islamic Religious Education. This study aims to, 1) describe the MindMeister visual organizer application, 2) implement the use of MindMeister visual organizer application in Islamic Religious Education learning, 3) describe the implications of MindMeister visual organizer application on students' critical thinking in Islamic Religious Education learning.

METHODS

This study uses a qualitative approach with a library research method. In qualitative research, written or spoken words from people and observed behaviors are collected to produce descriptive data. A qualitative approach is an activity that produces descriptive data in the form of written words from people who have been observed but not poured into the language used in quantitative research.

The library research method was used as a data collection technique, modified to suit the emphasis and purpose of the research. The library research method is a number of actions related to library data collection techniques involving reading, recording, and analyzing research materials. Research that uses books, scientific journals, magazines, newspapers, and documents as the main source (object) is referred to as library research. To overcome the problems raised, researchers seek data by reading various related references. Finding various theories, laws, arguments, principles, points of view, and other ideas that can be used to examine and solve the problem under study is the focus of library research. Meanwhile, according to Zed Mestika, library research is a series of activities related to library data collection methods, reading, recording, and processing materials from library collections only where field research is not involved (Zed, 2008). In relation to the data used by

researchers, both primary data and secondary data are data in the form of written works such as books, scientific journal articles that are appropriate and relevant to the topics discussed, namely regarding the use of Mindmeister visual organizer applications and critical thinking.

The collected research data was analyzed using the Miles and Huberman model, namely through the following stages:

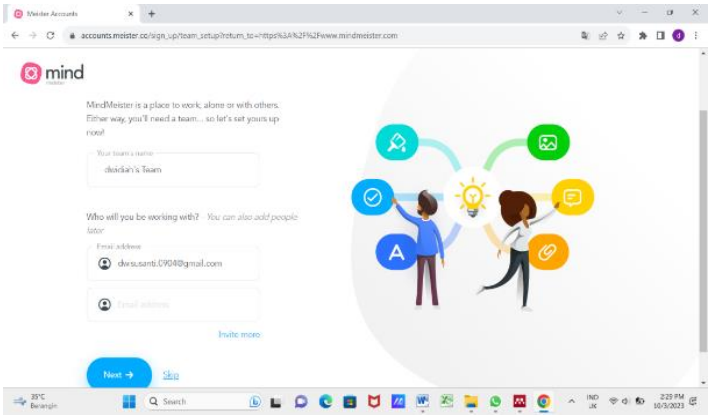
a) Data Reduction. In this process, it is commonly referred to as summarizing, taking and focusing on the main things according to the theme of the problem. The results of the data obtained are written in the form of descriptions. The results of the reduced data will provide an overview and make it easier for researchers to enter the next data collection, and search if needed (Sukmadinata, 2007).
b) Data Display (Presentation of Data). Display data is categorizing the analysis that has been done in the form of a set of information based on the focus of the problem under study. Which will provide a picture of the research, both as a whole and partially. Presentation of this data is in the form of a description or report according to the results of the study (Sadiah, 2015).
c) Conclusion Drawing/Verification. Conclusion is an attempt to find meaning, an explanation of the data that has been analyzed by looking for important things. Then this conclusion is described as briefly as possible, but still refers to the purpose of the research conducted (Sadiah, 2015).

Then for the data validation technique in this study is to involve triangulation techniques, namely checking and establishing validity by analyzing data from various perspectives. Triangluation is a form of checking a data through source triangulation, technique triangulation, and time triangulation. The source triangulation method is used in this research to test the truth of one or more information by using data from many sources. The sources in question are primary data sources and secondary data. By using this triangulation technique, the data studied is complete and valid.

RESULTS AND DISCUSSION

MindMeister Visual Organizer App

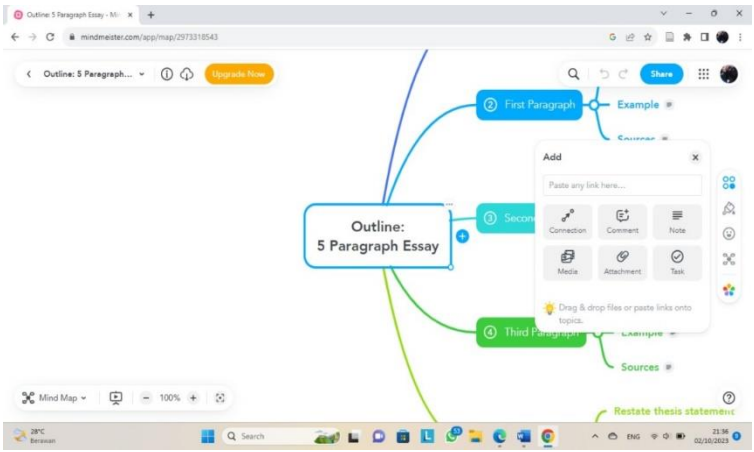
A model for using both brain activity synergistically and a visually appealing way to depict ideas is mind mapping (Readon et al., 2000). Tony Buzan in 1974 developed mind mapping, to the Brain Foundation as a creative note-taking model (Anam and Zahroh, 2022). This model helps people remember a lot of information. This is due to the brain's tendency to remember information in the form of images, symbols, sounds, shapes, and emotions (Amri, 2019). This concept map uses sensory and visual cues to organize related ideas in the form of a path that can be used for learning, organizing, and planning (Rouf and Kholiq, 2023). Along with the advancement of Science and Technology (IPTEK), making mind maps has become easier with the MindMeister application as the availability of various learning activity support tools.



MindMeister is one of the most popular and effective visual organizer applications in helping individuals and groups organize their thoughts and ideas. Mindmeister application is an online design program that provides various tools such as resumes, presentations, and others that have been provided in this application (Selvi Pransiska, Deri Wanto, 2022). To be able to access this application, users only need to create an account by entering an email.

This application is one of the web-based mind mapping applications (Dewantara, 2019). With the help of this application, it is no longer just for use in the workplace as some developers have created an online mind mapping function. Using MindMeister app is quite easy and very useful for creative learning. Since the app has

a variety of interesting blends and templates, users can make creations from the various templates. Comparatively, the design and interface are quite good, and can be used on all devices (Hidayati et al., 2022). MindMeister provides all the essential elements to develop and organize various forms of mind mapping as desired.



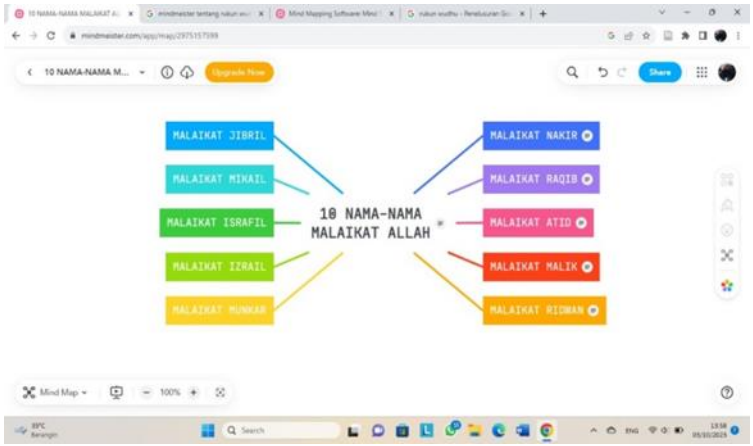
The app offers a variety of features, such as the ability to add icons, images, colors, and links, allowing users to customize and enrich the visual structure. MindMeister also provides integration with various platforms, allowing users to seamlessly transfer their thoughts to other applications.

The advantages of the MindMeister application are, 1) it has a variety of attractive designs, 2) it can be used on all devices, both laptops and cellphones, 3) effectiveness and time efficiency in creating mind maps or media in learning, 4) developing student and teacher creativity in designing learning media with the support of application features provided (Selvi Pransiska, Deri Wanto, 2022).

Implementation of MindMeister Visual Organizer Application in Islamic Religious Education Learning

MindMeister application, if developed correctly and on target, will become an innovative learning media in order to support the achievement of learning objectives (Tafonao, 2018). This application provides various interesting templates so that it can captivate students' interest in the learning process. For example, in the MindMeister application there are various interesting templates to be presented in the form of PowerPoint. Thus, if learning is supported by PowerPoint it will attract students' interest in learning. The benefits obtained in addition to gaining knowledge in ongoing learning, teachers also learn to be creative, skilled, and innovative in developing a lesson or material that is taught (Selvi Pransiska, Deri Wanto, 2022). Likewise, the learning process can run actively with the application of the mind mapping method.

The implementation of MindMeister visual organizer application in Islamic Religious Education (PAI) learning has brought significant changes in the way students understand and memorize religious concepts. By utilizing MindMeister's interactive features, such as creative mind map creation and attractive color selection, students can better organize the information of Islamic Education subjects. For example, as below students can create a maid mapping about the names of Allah's angels by using Mindmeister application.



In addition, the ability to collaborate online allows students to discuss and share their understanding with their peers, reinforcing the understanding of Islam through different perspectives. With seamless integration with mobile devices and computers, students can access and modify their mind maps anywhere and anytime, facilitating continuous learning. In addition to better organization of information, the app also encourages students to think critically and creatively as they plan their mind maps. This not only improves the understanding of Islamic concepts, but also helps students acquire critical skills, such as problem-solving and analysis. Therefore, the implementation of MindMeister in PAI learning is an innovation that has the potential to enrich students' learning experience and strengthen their religious understanding. The implementation of mind mapping method with MindMeister application was tested for its effect on student outcomes. Thus, MindMeister becomes an appropriate tool in increasing the productivity and visual thinking ability of individuals and groups. By using MindMeister in PAI learning, students can build a stronger understanding of Islam while still developing collaborative skills towards the advancement of science and technology.

Implication of MindMeister Visual Organizer Application on Students' Critical Thinking in Islamic Education Learning

The use of visual organizer applications such as MindMeister in learning Islamic Religious Education has positive implications for students' understanding and their ability to think critically. These implications can be analyzed by referring to various relevant educational theories.

1. Improvement in Information Organization
   The application of constructivism theory in the use of MindMeister has proven effective in improving students' understanding of Islamic Religious Education materials. By allowing students to organize information in mind maps, the app helps students connect Islamic concepts in a more structured way (Ardiansyah, 2023). For example, students can create mind maps that relate religious teachings to practical examples in everyday life. This can help students to understand the context of religious teachings and apply them in their lives.
2. Critical Thinking Stimulation
   The application of cognitive learning theory is seen through the critical thinking stimulation generated by MindMeister. Students are expected to formulate arguments, questions, or analysis in their mind maps (Padang, 2022). This process spurs critical thinking as students need to detail and relate Islamic religious concepts to specific contexts. They have to consider the implications of religious teachings in various situations, which triggers analytical and reflective thinking.
3. Collaboration and Discussion
   In the context of social learning theory, the use of MindMeister allows collaboration and discussion between students. They can share their mind maps and discuss about the concepts of Islamic religion. This discussion allows students to hear different viewpoints and broaden their understanding. Collaborating on mind maps also triggers shared critical thinking as students need to evaluate and criticize the ideas put forward by their peers (Humairoh, 2022).
4. Ease of Use
   The application of technological understanding theory is essential in the educational context, especially when integrated in tools such as MindMeister that are intuitive and easy to use. The use of this platform not only facilitates the teaching of Islamic Religious Education, but also overcomes technical barriers that may arise during the learning process. By using MindMeister, students can easily access and interact with the subject matter without being distracted by technical issues. This advantage gives them the opportunity to go deeper in their understanding of Islamic concepts. As a result, students can allocate their time and energy to develop critical thinking skills and analyze information more deeply. Thus, the use of this technology is not just a tool, but also an effective means to improve the quality of education and develop students' intellectual potential in the study of Islamic Religious Education.
5. Evaluation and Reflection
   Finally, the use of MindMeister allows students to evaluate their own understanding. The theory of reflective thinking is applied as students use the mind map to reflect on their understanding of Islamic teachings. They can identify areas where they still need further understanding and plan steps to deepen their knowledge.

In the context of learning Islamic Religious Education, the use of visual organizer applications such as MindMeister has positive implications for students' understanding and their critical thinking skills. Through the application of educational theories, we can understand how MindMeister helps students organize information, stimulate critical thinking, facilitate collaboration, and enable self-evaluation. Thus, the use of MindMeister can

improve the quality of Islamic Religious Education learning by providing tools that support deeper understanding and better critical thinking in students.

CONCLUSION

Based on the results of data analysis in this study, it can be concluded that:

1) Mindmeister Visual Organizer application has a significant impact in building students' critical thinking skills in learning Islamic Religious Education (PAI). The use of MindMeister not only gives students easy and structured access to information, but also stimulates their critical thinking.
2) MindMeister helps students organize ideas and concepts visually, allowing them to see the relationships between ideas more clearly. In this process, students are invited to think critically about how the concepts are interrelated and impact the overall understanding of Islam.
3) MindMeister facilitates in-depth analysis. By arranging ideas in a structured manner, students need to consider the relevance and validity of each piece of information. This stimulates students' ability to criticize sources of information and evaluate the truth from multiple perspectives.
4) In addition, this application encourages students to formulate cohesive arguments. By compiling information in the form of concept maps, students need to formulate logical and organized arguments to support their ideas. This involves critical thinking in the selection of evidence and structuring the argument so that it can convince the reader or listener.
5) Creativity also emerged as an important aspect of critical thinking through the use of MindMeister. In designing their own concept maps, students have the freedom to consider new ideas, explore concepts that have not been thought of before, and integrate critical thinking into creative solutions.

Thus, the application of MindMeister in Islamic Religious Education learning not only strengthens students' understanding of the material, but also forms students who have deep and creative critical thinking skills. The integration of this technology paves the way for more dynamic Islamic Education learning, enabling students to become independent thinkers, critical assessors, and creative problem solvers in the context of Islam. Thus, MindMeister is not only a learning tool, but also an important means to prepare students to face the complexities and challenges of the modern world with strong and critical thinking skills.

ADVICE

Based on the results of the study, it is suggested that this study can be used as a reference in developing insights into the use of MindMeister visual organizer application in building students' critical thinking in Islamic Religious Education learning. Furthermore, it can be developed with various other ICT-based innovative learning media, and with a wider range of substances.

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