Evaluation of Teaching Materials For Mind Mapping-Based Islamic Religious Education Curriculum Review: Implications For the Practicality of Learning

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ABSTRACT

This study aims to evaluate the practicality of mind mapping-based teaching materials in improving students' understanding and retention of information in the Islamic Religious Education Curriculum Review course at Muhammadiyah Kendari University. This research was conducted amidst various challenges related to traditional teaching methods, time constraints, and students' difficulties in understanding complex concepts. This study used a mixed research design using the sequential explanatory method. Quantitative data was collected through questionnaires given to 103 students, followed by qualitative data collection through interviews and document analysis with teaching lecturers. From the data analysis, it was found that mind-mapping-based teaching materials are very practical in supporting the learning process. As many as 85% of students stated that this teaching material was very helpful in understanding the material taught. Lecturers' responses also showed that this teaching material is practical and can be used in the learning process. These findings indicate the importance of developing innovative and adaptive teaching materials to meet students' learning needs effectively. This study recommends the adoption of mind mapping-based learning models accompanied by organized internal and external support to facilitate the provision of balanced and sustainable knowledge in accordance with modern educational trends and student needs.
Keywords: Practicality, Mind Mappin, Student Learning, Islamic Religious Education Curriculum

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A. INTRODUCTION

Efforts to improve the quality of education cannot be separated from strengthening courses. Strengthening courses at this time is indeed an urgent thing to do, considering the various developments in science and technology and the rapid flow of information (Cronholm, 2021; Xin et al., 2017; Zhu et al., 2023). Strengthening courses in higher education, especially in the faculty of Islamic religion, has implications for the quality of the output. Curriculum review is considered urgent in supporting the competence of prospective teacher students. This course provides learning experiences that help students construct their understanding of the curriculum in schools. After attending lectures, students are expected to be able to understand and implement the curriculum and matters related to it (Herlambang, 2021; Pratiwi et al., 2022). In connection with this, the Islamic Religious Education curriculum review course is seen as one of the important elements in the education system in public universities.

One important aspect of curriculum review learning is the availability of teaching materials (Malahayati & Zunaidah, 2021; Meij & Merx, 2018). The teaching materials referred to here are teaching materials that are up-to-date, comprehensive, easy to understand, and in accordance with learning needs. Efforts to meet the needs of the teaching materials in question can be made by developing teaching materials through scientific procedures.

The development of teaching materials must be able to answer or solve problems or difficulties in learning (Ernawati et al., 2017; Sukmafani et al., 2021; Zakiah et al., 2022). There are a number of learning materials that are often difficult for learners to understand, and students or lecturers find it difficult to explain (Sutrisno, 2016). These difficulties may occur because the material is abstract, complicated, unfamiliar, and so on. To overcome this difficulty, it is necessary to develop the right teaching materials. If the learning material to be conveyed is abstract, then the teaching material must be able to help students describe something abstract, for example, by using images, photos, charts, schemes, and others. Similarly, complicated material must be explained in a simple way, according to the student's level of thinking, so that it becomes easier to understand (Sutrisno, 2016).

Teaching materials for the review of the Islamic Religious Education curriculum at the Faculty of Islamic Studies, Muhammadiyah University of Kendari, were developed from general guidelines issued by Muhammadiyah University of Kendari. The existing teaching materials for the review of the Islamic Religious Education curriculum are still in the form of handouts with material content adapted to the semester learning plan. Therefore, this research and development activity is expected to produce a systematic textbook with the presentation of material that can be easily understood by students. The form of presentation referred to in this textbook is by using mind mapping (Buzan, T., 2011; Davies, 2011; Edwards & Cooper, 2010).

The use of teaching materials, especially textbooks at the Faculty of Islamic Studies, Muhammadiyah University of Kendari, has not been as expected. The Dean of the Faculty of Islamic Studies at Muhammadiyah University of Kendari stated that until now, there has been no specific textbook for curriculum review courses at Muhammadiyah University of Kendari. The teaching materials used are only the results of brainstorming with students during the initial meeting (Yusuf, personal communication, October 11, 2022). The same thing happened in several other courses. Furthermore, the lecturer in charge of the course revealed the difficulty of students constructing concepts related to curriculum review. The effort that has been made to overcome these problems is the use of mind mapping. According to him, this effort turned out to be very helpful for lecturers in building students' understanding (Suarni, personal communication, October 10, 2022). Regarding the use of mind mapping, Elis Asmawati, a student of the Islamic religious education study program, stated that the mind mapping technique used was very helpful in understanding the learning of curriculum review courses (E. Asmawati, personal communication, October 10, 2022).

The observation results found that students who studied with the mind mapping technique had a better level of understanding of the seriousness of learning. Mind mapping increases students' literacy levels. This technique stimulates students to write the concepts of learning materials in the form of mind mapping (Suarni, personal communication, October 10, 2022).

Studies on efforts to develop and strengthen Islamic religious education curriculum review courses in public universities in Indonesia are still minimal. This is an interesting study, considering that the number of universities in Indonesia is not small, and the Islamic religious education curriculum review course is a compulsory course that must be programmed. Quantitatively, the low number of research results on this course indicates that there is no serious attention. Curriculum review is still dominated by descriptive research.

The argumentation of this research refers to two important things. First, the Islamic Religious Education Curriculum Review course needs to get attention and strengthen in every aspect, including the teaching materials used. Second, mind mapping as a tool in constructing thoughts and helping to remember the material taught is one alternative that can be chosen. The results of the researcher's study of the RPS and learning materials for the curriculum review course found that the characteristics of this course are very appropriate for using mind mapping. The characteristics of this course are dominated by the explanation and classification of concepts. The characteristics of this kind of material can be easily understood if using mind mapping because it can easily see the flow of the concept of the material being studied. Therefore, this mind-mapping concept was chosen as the basis for developing teaching materials.

B. LITERATURE REVIEW
Evaluation of Mind Mapping-Based Teaching Materials in the Islamic Religious Education Curriculum

Research focused on evaluating mind mapping-based teaching materials in the Islamic Religious Education (PAI) curriculum is highly relevant in the context of efforts to improve the quality of learning. Mind mapping, introduced by (Tony Buzan, 2011), is one of the effective visual methods to help students organize information more systematically. This technique facilitates students in understanding and remembering abstract concepts, which often pose challenges in PAI learning, especially in complex topics such as curriculum review (Davies, 2011; Edwards & Cooper, 2010).

Mind mapping has proven to be effective in fostering students' critical and creative thinking skills (Sutrisno, 2016). This technique allows students to create connections between concepts that may have previously appeared separate or unrelated. In the context of PAI curriculum learning, where students are often faced with abstract terminology and concepts that require precise classification, mind mapping offers a practical solution to simplify such complexities.

Previous studies support the effectiveness of mind-mapping-based teaching materials. For instance, research by (Ernawati et al. 2017; Sukmafani et al. 2021) shows that the use of visual tools such as diagrams and concept maps can enhance students' understanding of abstract material. Furthermore, (Zakiah et al. 2022) emphasized that teaching materials structured in an organized and easily comprehensible manner can reduce confusion and improve focus during learning.

The use of mind mapping in teaching is also associated with increased student engagement. (Sutrisno 2016) notes that students using mind mapping are more actively involved in the learning process, as this method requires active participation in organizing information. This aligns with research findings showing that students using mind mapping-

based teaching materials have better comprehension and information retention compared to those using conventional methods (Malahayati & Zunaidah, 2021; Meij & Merx, 2018).

Practical Implications of Using Mind Mapping in Islamic Religious Education

This study highlights the importance of innovative teaching materials that meet students' learning needs. As noted by (Pratiwi et al. 2022), the PAI curriculum requires teaching approaches that are adaptive to the evolving times and students' needs. The PAI curriculum, which often deals with abstract and historical concepts, requires strategies that help students connect the material to their real-life experiences. Mind mapping, with its visual structure, enables students to visualize relationships between the concepts being taught, thereby enhancing their understanding.

Previous research also demonstrates that mind-mapping-based teaching materials offer wide-ranging benefits across various disciplines. (Cronholm 2021) noted that mind mapping not only helps in organizing information but also improves analytical thinking and problem-solving skills, which are essential components of PAI learning.

This research contributes to the growing literature on the development of innovative teaching materials, particularly in the context of religious education in Indonesia. As highlighted by (Zhu et al. 2023), improving education quality cannot be separated from the use of teaching materials that cater to students' needs and modern educational trends. Therefore, this study emphasizes the importance of adopting mind mapping as a practical and adaptive learning approach in higher education, especially within the PAI curriculum.

C. METHOD

This research uses a sequential explanatory method mixed research design proposed by Creswell & Creswell (2017), which aims to describe the characteristics of the research object systematically, factually, and accurately. This approach was chosen for its ability to generate relevant numerical data to identify certain patterns or trends in mind-mapping-based learning practices in the Islamic religious education curriculum. This research is part of a development research (R&D) project according to the Borg and Gall model, which generally includes various research phases, but in this article, the focus is only given to the practicality test of the developed teaching materials.

Selection of participants

The study involved an initial evaluation of the teaching materials by four experts using the expert judgment technique to ensure content validity before the pilot test (Sugiyono, 2017). The trial of the teaching materials was conducted in two stages: an individual trial with ten randomly selected students to assess self-use and a group trial with 93 randomly selected students to evaluate effectiveness in a cooperative learning setting. After each pilot session, the teaching materials were repeatedly revised based on student feedback to produce an effective and practical final prototype in line with end-user feedback. This process emphasizes the importance of iteration and adaptation based on direct evaluation from users to develop responsive and relevant educational materials.

Data collection

Data collection was conducted through the distribution of questionnaires designed to gather responses from lecturers and students regarding the practicality of the teaching materials. The data collection instrument included two different types of questionnaire sheets: one customized for students and one for lecturers. These questionnaires included questions designed to assess specific aspects of the teaching materials, such as the clarity of the instructions, the relevance of the material to the curriculum, and its effect on concept understanding. This process allows the researcher to obtain comprehensive and layered feedback from both different perspectives, which is essential in evaluating and improving the developed teaching materials (Cresswell, J. W., 2010).

Data analysis

Data analysis of the practicality of teaching materials was carried out using descriptive statistical techniques to process the results of response questionnaires from students and lecturers (Firman, 2018). For the student response questionnaire, the analysis was quantitatively descriptive. Answers from the questionnaire, which uses a Guttman scale, are scored from 1 (less) to 4 (very good), which allows a quantitative assessment of the level of student satisfaction with the teaching materials. In contrast, for the interview-formatted lecturer response questionnaire, the data analysis was qualitative descriptive. This involved a narrative synthesis of lecturers' responses to the use of teaching materials in the mind mapping-based PAI curriculum, providing in-depth insight into lecturers' views on the effectiveness of the teaching materials.

Ethical issues

Prior to the study's conduct, ethical approval was obtained from Universitas Muhammadiyah Kendari, the institution where the study was conducted, to ensure that all research procedures were in accordance with applicable ethical norms. In addition, informed consent was also sought from the lecturers involved to guarantee their voluntary participation in the study. This ensured that all respondents had a clear understanding of the purpose of the study, the nature of their participation, and the potential risks and benefits associated with involvement in the study.

D. RESULTS AND DISCUSSION

The practicality test of teaching materials is an important stage in the development of teaching materials to ensure that the materials provided are in accordance with users' needs and are easily understood. In this study, the practicality test was carried out through a series of trials involving small groups and large groups, and responses were obtained from lecturers. Given the importance of efficiency in data collection and maximizing respondent coverage, the use of Google Forms as a data collection tool is a strategic step. Through this platform, respondents can easily access, fill, and submit their responses online. In addition, the inclusion of book links in the questionnaire allows students and lecturers to download, read, and provide feedback more easily.

In the small group trial, ten students were involved to provide initial in-depth feedback on the teaching materials. This is useful to detect any initial problems or shortcomings that may arise. After that, a larger scale trial was conducted involving 93 students, which provided a broader picture of the feasibility of teaching materials among more users. In addition to students, opinions from experts are also crucial. In this case, three lecturers from the Faculty of Islamic Studies at Universitas Muhammadiyah Kendari provided valuable input based on their expertise and experience. Through a combination of feedback from students and experts, the results of this practicality test are expected to present a comprehensive picture of the quality and feasibility of the teaching materials developed.

The following describes the results of the practicality test, which includes small-group and large-group trials, as well as responses from lecturers.

Small group trial

Small group trials are one of the initial stages in evaluating the teaching materials developed. This study involved ten students from the Islamic Education study program who were in semester 5. The selection of this group was carried out with special consideration. These students have taken the course "Review of the Islamic Education Curriculum" in semester 4, so they have a basic understanding of the material. Thus, they can provide relevant input based on their previous learning experience.

The advantage of involving students who have had learning experiences in the same course is that they can provide a deeper perspective. They not only assess the quality of the

content but can also provide comparisons with the teaching materials they used before. This allows teaching material developers to find out the advantages and disadvantages of this new teaching material compared to the previous one.

By getting feedback from students who are familiar with this course, it is hoped that the teaching materials developed can be further refined. This ensures that the teaching materials are not only theoretically qualified but also practical and relevant to students' learning needs.

In evaluating the effectiveness of the teaching materials developed, responses from users, in this case students, are an important indicator. Based on the data obtained, most students, namely 80%, stated that the teaching materials were "very helpful" for them in understanding the concepts taught. Meanwhile, the remaining 20% considered the teaching materials "helpful."

From these results, it can be concluded that the teaching materials developed have been successful in presenting the material in an effective way. A total of 100% of respondents gave positive responses, with none of them feeling that the teaching materials were less helpful or not helpful at all. This feedback indicates that the development, structure, and content in the teaching materials have successfully facilitated students' learning process.

In the learning process, the relevance and currency of information in teaching materials is crucial. According to the data obtained, the majority of students gave positive responses to the teaching materials presented. As many as 30% of them rated the information in the teaching materials as "very relevant," while the other 60% felt that the information was "relevant." This shows that 90% of the total respondents felt that the teaching materials presented were suitable for their learning needs and relevant to the material being taught.

However, 10% of students gave a "neutral" response. Although this response is not negative, it indicates that there is a small proportion of students who may feel that the information presented in the teaching materials is inadequate or they are not fully convinced of its relevance.

From these results, it can be concluded that the teaching materials developed have generally succeeded in presenting relevant and up-to-date information for most students. However, the percentage of students who gave neutral responses indicates that there is an opportunity to further deepen or enrich the content so that the teaching materials can meet the expectations of all students more optimally. Further evaluation may be needed to find out the reasons behind the neutral responses and make improvements accordingly.

The use of Mind mapping in teaching materials can facilitate the process of understanding the concepts taught to students. This can be seen from the positive responses obtained from students. A total of 70% of the respondents felt that the use of Mind mapping was "very helpful" in understanding the material taught. This shows that Mind mapping, with its visualization and organizational structure, can make it easier for students to connect information, identify main concepts, and understand the relationship between concepts.

Meanwhile, another 30% felt that Mind mapping was "helpful." Although not giving the highest rating, this response still shows appreciation for the usefulness of Mind mapping in teaching materials. Thus, overall (100% of respondents) showed a positive response to the use of this method.

Thus, it can be concluded that the integration of Mind mapping in teaching materials has proven to be effective in supporting students' learning process. The visualization of concepts in the form of mind maps allows students to see the big picture of the material and the relationship between information more clearly. Nonetheless, there is always room for improvement, especially in terms of the presentation or details of the mind mapping itself, to ensure all students get the maximum benefit from this development.

The understandability of the teaching materials is one of the main indicators of their effectiveness in supporting the learning process. Based on feedback from students, most of

them gave positive responses to the teaching materials provided. As many as 40% of the respondents stated that the teaching materials were "very easy" to understand, while the other 50% felt that the teaching materials were "easy" to understand. This shows that 90% of the total students felt that the content, structure and presentation of information in the teaching materials were well-designed and suited to their needs.

However, 10% of students gave a "neutral" response. Although not explicitly indicating dissatisfaction, this neutral response could indicate that some students may have encountered some obstacles or unclear aspects of the teaching materials.

From these results, it can be concluded that overall, the teaching materials have been successfully designed and are easily understood by the majority of students. However, it is necessary to conduct further evaluation, especially with the group that gave neutral responses, to find out what aspects may need further improvement or clarification so that teaching materials can provide maximum benefits for all students.

The attractiveness and ability of teaching materials to motivate students is very important in the learning process, as this contributes to students' active involvement in the material. Based on the responses received, the majority of students found the teaching materials interesting. A total of 20% of students considered the teaching materials to be "very interesting," while the other 70% felt the teaching materials were "interesting." This indicates that 90% of the total respondents felt motivated by the teaching materials presented, which could be a supporting factor for the success of their learning process.

Even so, 10% of students gave a "neutral" response. This kind of response indicates that there may be certain aspects of the teaching materials that are less interesting or motivating for some students, or they are not fully convinced of the effectiveness of the teaching materials in motivating them.

Through this feedback, it can be concluded that, in general, the teaching materials have succeeded in creating interest and motivation in students. However, as always, there is room for improvement, particularly in understanding and addressing the reasons for the neutral responses from some students. There may be a need for further variations, the addition of interactive elements, or other developments that can increase the appeal of the teaching materials to all students.

Large group trial

Large group testing is one of the important stages in the development of teaching materials to ensure the effectiveness and feasibility of materials on a wider scale. In this trial, a total of 93 students from the Islamic Religious Education study program at the Faculty of Islamic Studies were involved. Of these, 51.6% or around 48 students came from semester 7, while 48.4% or around 45 students came from semester 5. This provides an almost balanced representation between the two-semester groups, thus providing a more holistic picture of the effectiveness of teaching materials for students with knowledge backgrounds that may be slightly different.

Administering the questionnaire through Google Forms shows an effort to maximize the efficiency of data collection and make it easier for students to provide their responses. This digital format is expected to facilitate the analysis of responses and provide quick and precise insights into the quality of the teaching materials developed. The presence of students who have programmed the course adds value to the feedback provided because they can compare this teaching material with their previous learning experience.

In the large group trial involving 93 students, responses to questions regarding the extent to which the teaching materials helped them understand the concepts taught showed quite positive results. The majority of students, namely 48.4% or around 45 students, felt that the teaching materials were "very helpful" in understanding the concepts taught. This indicates

that the teaching materials have been well-designed and are able to facilitate the learning process effectively for most students.

In addition, 36.6% or around 34 students, felt that the teaching materials were "helpful." Thus, combined, about 85% of students felt that the teaching materials provided significant benefits to their learning.

However, 12.9% of 12 students gave a "neutral" response, indicating that they may not be fully convinced or have encountered some obstacles in the teaching materials. Meanwhile, 2.2% or two students felt that the teaching materials were "not very helpful," indicating that there are certain aspects that need to be evaluated and improved.

In ensuring the quality of teaching materials, the relevance and currency of the information presented are important. Based on responses from 93 students, the majority felt that the information in the teaching materials was up-to-date and relevant. As many as 30.1%, or around 28 students, considered the teaching materials to be "very relevant." Meanwhile, more than half of the total respondents, namely 54.8% or around 51 students, felt that the information presented was "relevant." This indicates that the teaching materials have captured and reflected the latest developments in the field of study well and are relevant to students' learning needs.

However, 15.1% or around 14 students gave a "neutral" response. This response may indicate that there are some content or aspects that may be less relevant or not fully in line with their expectations.

In conclusion, most students feel that the content in the teaching materials is up-to-date and relevant to their learning needs. However, feedback from groups who gave neutral responses certainly needs to be considered and taken into account in improving teaching materials in the future.

The use of Mind mapping in teaching materials is one of the developments that aims to facilitate the learning process by presenting information in a visual and structured manner. Based on feedback from 93 students, it appears that most responded positively to this development.

The majority, 51.6% or about 48 students, felt that the use of Mind mapping was "very helpful." This indicates that this visual method makes it easier for them to understand, organize, and remember the concepts taught in the teaching materials. Furthermore, 38.7% or about 36 students, felt that Mind mapping was "helpful," which means that this development provided additional benefits in their learning process.

However, about 7.5% or seven students gave a "neutral" response, perhaps indicating that they had not fully seen the advantages or effectiveness of this method. Meanwhile, 1.1% (1 student) found Mind mapping "not helpful," and another 1.1% (1 student) found it "not very helpful". This indicates that there is a small group of students who may encounter difficulties or not get the optimal benefit from using Mind mapping.

In developing teaching materials, ease of understanding is one of the keys so that the material can be absorbed effectively by students. Based on responses from 93 students, the majority gave a positive assessment of the ease of understanding of teaching materials.

As many as 28%, or around 26 students, felt that the teaching materials were "very easy" to understand. This indicates that the presentation of material, language, and development used in the teaching materials have succeeded in conveying concepts clearly to a large number of students. Meanwhile, more than half of the total respondents, namely 52.7% or 49 students, felt that the teaching materials were "easy" to understand, indicating that the teaching materials had been well designed and in accordance with students' capacity for understanding.

However, about 18.3% of 17 students gave a "neutral" response. This response may indicate that some of them feel that some parts of the teaching materials need further

elaboration, or there may be certain aspects that are less clear. In addition, 1.1% of one student felt that the teaching materials were "very difficult," indicating a need to evaluate and possibly revise certain parts of the teaching materials to ensure all students can understand them well.

Interest and motivation in learning are important elements that can affect the success of the learning process. In the context of teaching materials, an interesting presentation can encourage students to be more enthusiastic in understanding the material. Based on the responses from 93 students, it appears that most gave a positive assessment of the attractiveness and motivational capacity of the teaching materials.

As many as 29%, or around 27 students, considered the teaching materials to be "very interesting." This indicates that the presentation elements, such as the design, illustrations, and development methods used, succeeded in attracting their attention and interest. Furthermore, the majority of respondents, namely 60.2% or 56 students, felt that the teaching materials were "interesting". This means that the teaching materials have enough appeal to motivate them in the learning process.

However, about 8.6% or eight students gave a "neutral" response, which may indicate that although they did not find any particular difficulties with the teaching materials, they also did not feel particularly motivated by them. In addition, 2.2% of students found the teaching materials "uninteresting." Although this is only the response of one individual, it is important to consider it as an input in the improvement of future teaching materials. In conclusion, this teaching material has successfully attracted the interest and motivated most students to learn more.

Lecturer response questionnaire

Practicality testing of teaching materials focuses on the extent to which teaching materials can be used easily and effectively by end users, in this case, students and lecturers. By involving three lecturers from the Faculty of Islamic Religion, Muhammadiyah University and a professor from IAIN Kendari, this evaluation aims to understand their experience in using teaching materials and how practical the teaching materials are in their use.

The use of Google Forms as a data collection method shows modern developments in the research process. The ease of access and flexibility of Google Forms allows respondents to provide their responses quickly and efficiently. In addition, data generated from Google Forms can be processed quickly, allowing researchers to gain insight from the data in a short time.

The results of this practicality test are important to determine whether the teaching materials have fulfilled their purpose in providing material in a way that is clear, systematic, and easy for users to understand. Responses from lecturers and professors who have in-depth educational backgrounds and teaching experience will provide valuable insight into how teaching materials can be applied in classroom teaching and how effective they are in conveying important concepts to students.

In testing the practicality of teaching materials, the relevance of the material to the course curriculum is one of the key aspects that must be considered. The response results showed that 100% of respondents answered that the teaching materials were very relevant to the curriculum for the course "Review of the Islamic Religious Education Curriculum," which was a very positive indicator. This indicates that the teaching materials were carefully developed in accordance with academic needs and expectations.

Alignment between teaching materials and the curriculum is fundamental in education because this ensures that students receive information and understanding in accordance with established academic standards. Apart from that, the high relevance between teaching materials and the curriculum also indicates that the process of developing teaching materials has properly considered competency standards, learning objectives, and the content that must be provided to students.

Getting positive responses from 100% of respondents regarding the relevance of teaching materials proves that the development of these teaching materials has been carried out well according to needs. This also confirms that these teaching materials will make a significant contribution to helping students understand the concepts in the "Study of the Islamic Religious Education Curriculum" more deeply and systematically.

The response results, which show that 100% of respondents feel that the teaching materials are "very helpful" in their teaching process, are a strong indication of the quality and effectiveness of the teaching materials developed.

When all respondents felt that the teaching materials were very helpful, this indicates several important things. First, the teaching materials clearly meet their teaching needs, presenting the material in a systematic, coherent and easy-to-understand way. This makes it easier for lecturers or instructors to convey concepts to students, ensuring that lesson content is presented in an effective and efficient manner.

Second, these teaching materials most likely have a design and structure that supports teaching and learning activities. This can include logical presentation of material, use of relevant illustrations or diagrams, exercises or activities that support understanding, and more. These factors can influence how instructional materials support teaching and assist in achieving learning objectives.

Third, this positive response indicates that the teaching materials have been designed to take into account the needs and expectations of teachers. This means that the teaching materials focus not only on content but also on how the content is presented, how to support interactions between teachers and students, and how to help teachers assess student understanding.

Positive responses from lecturers regarding the quality of content in teaching materials reflect the quality and relevance of the material presented. As many as 75% of lecturers felt the content of the teaching materials was "very good," while another 25% rated it as "good." Thus, not a single lecturer gave a negative or neutral response regarding the quality of the content, which indicates high confidence in the content of the material.

A teaching material that has "very good" content quality means that the material is presented accurately, in-depth, and in accordance with applicable curriculum standards. "Very good" content also indicates that the information presented is up-to-date, based on references or credible sources, and presented in a way that is interesting and easy for students to understand.

A "good" response from 25% of lecturers indicates that although they feel the content is quality, there may be certain aspects that could be improved. This could relate to the presentation of the material, the depth of the content, or other aspects relevant to their teaching needs.

The use of Mind mapping in teaching materials received a very positive response from lecturers, with 100% stating that the method was "very effective" for understanding the concepts presented. This shows that Mind mapping has been well-accepted as an educational tool that can improve conceptual understanding.

Mind mapping, with the essence of visualization and organizing ideas or concepts in a hierarchical and structured manner, makes it easier for users of teaching materials to capture relationships between concepts, dissect information, and understand the structure of the knowledge presented. Apart from that, this method also makes it easier to break down complex information into simpler ones that can be understood more easily.

This positive response confirms that visual development, such as Mind mapping in education, can be a very valuable tool. In fact, visual development is often more engaging and relatable to many students compared to traditional text-based methods. Furthermore, Mind mapping helps increase information retention, spur creativity, and encourage critical thinking.

Analysis

In the development stage of teaching materials, practicality testing is fundamental to ensure that the material is presented according to needs and is easy for users to understand (Nafsih et al., 2019; Nieveen, 1999). In this research, the process involved student groups at two scales, small and large, as well as lecturer responses, with Google Forms being a strategic tool for collecting responses.

In small group testing, ten students who were previously familiar with the course provided in-depth feedback, assessing not only the quality of the content but also how it compared to previous teaching materials. Feedback from this group confirmed that the teaching materials developed had met practical needs and were relevant to the student learning experience. However, when expanded to a large group trial with 93 students, although the majority gave positive responses to the teaching materials, there were a number of students who gave neutral or negative responses. This shows that there is room for improvement, especially to meet the expectations of all students more optimally.

From the lecturers' perspective, their responses indicate high confidence in the quality of the teaching material content. In addition, all lecturers responded positively to the use of Mind mapping, assessing it as a "very effective" method for understanding the concepts being taught. This suggests that this visual development is considered valuable in education, providing a deeper perspective and facilitating understanding of concepts. Overall, this research emphasizes the importance of practicality testing in the development of teaching materials and how feedback from users can help improve and enrich educational content (Azis, 2019; Ryananda, 2022).

In recent years, mind mapping-based learning methods have become the focus of attention in the world of education, with research underlining their practicality and effectiveness. One relevant research is the work of Devanga Putra Adhitya Pratama et al., who developed interactive learning media based on mind mapping to improve students' understanding, especially in distance learning situations (Pratama et al., 2022; Su et al., 2022). The results of this research show that the use of this media significantly increases students' understanding, with a high level of satisfaction from the students.

Likewise, research conducted by Sintiya Arentika Putri regarding mind mapping-based pocketbooks for PPKn lessons in elementary schools highlighted the importance of innovative teaching materials in supporting learning (Putri et al., 2023). This research shows that the pocketbook is valid and practical, with a high level of validity.

Furthermore, Nidde Puspita conducted research on the development of mind-mapping-based fiction prose textbooks (Puspita & Maiza, 2021). The results of this research indicate that the textbook is valid, practical, and effective in achieving student learning goals.

In the context of the findings of this research regarding the validity of teaching materials, the findings from the research above provide strong support for the development of mind mapping-based learning as a way to increase students' understanding of the subject matter. The similarities between this research and these studies confirm that this development is not only academically valid but also practical and effective in improving learning outcomes. These findings together confirm the importance of applying mind mapping in the world of education as a valuable tool for improving students' understanding of subject matter.

Based on the results of the practicality test of the teaching materials that have been carried out, it can be concluded that the teaching materials developed as a whole meet the criteria of good practicality. Through small group trials, large groups, and responses from lecturers, the majority of respondents gave positive responses to the teaching materials. This teaching material is considered relevant to learning needs, easy to understand, and effective in conveying the concepts being taught (Alsuraihi, 2022; Malahayati & Zunaidah, 2021; Pratama et al., 2022). In particular, visual developments such as the use of Mind mapping received high

appreciation from lecturers and students, showing their effectiveness in facilitating understanding (Su et al., 2022; Wafa & Khalaf, 2022).

However, neutral or negative responses from some students indicate that there are aspects that need to be improved. This may relate to the depth of content, presentation of the material, or the specific learning needs of some students. The majority of positive responses indicate that the teaching materials developed are relevant to curriculum needs and effective in delivering the material. This indicates that the developments taken in developing teaching materials are appropriate and in line with user expectations. Positive acceptance of the use of Mind mapping shows that this visual development has great potential in education (Khoerudin et al., 2023; Puspita & Maiza, 2021). This is an indication that the integration of other visual tools may be useful in future teaching materials (Nurhabibah, 2021). Overall, these findings indicate that while the developed teaching materials are on the right track, there is potential for further improvement through refinement and adaptation based on user feedback.

The results of the practicality test of teaching materials have significant implications for the world of education, especially in the development of learning materials. First, the success of teaching materials in meeting learning needs shows the importance of designing materials that suit the curriculum and the actual needs of users. This implies that the process of designing teaching materials must involve feedback from users, both students and educators so that the resulting materials are truly effective (Ryananda, 2022).

Furthermore, positive responses to the use of Mind mapping show that visual learning methods have great potential to improve students' understanding of concepts and retention of information (Safrizal, 2017). This has implications for the need to integrate visual and other interactive methods in teaching materials to support a more effective and interesting learning process (Wafa & Khalaf, 2022).

However, neutral and negative responses from some respondents imply that developments that work for most users may not necessarily be effective for everyone. This emphasizes the importance of inclusive development and flexibility in the development of teaching materials. The material must be designed in such a way that it can meet the diverse needs and learning styles of students (Malahayati & Zunaidah, 2021).

Finally, the implication of the results of this research is the need for adaptive, responsive and sustainable development in the development of teaching materials. The world of education is always changing, and so are the needs and expectations of students (Indarta et al., 2021). In response to these results, educators and developers must always be ready to evaluate, adapt and innovate in presenting relevant and effective learning materials for each generation of students (Novitasari et al., 2022).

E. CONCLUSION

The teaching materials "Study of the Islamic Religious Education Curriculum: Mind Mapping Based Learning" developed for the Muhammadiyah University of Kendari have gone through the practicality testing stage, reflecting the systematic application of scientific methods in the development of teaching materials. Based on the evaluation results from student groups and lecturer responses, in general, this teaching material received a positive response and demonstrated its practicality. From trials involving two groups of students, the majority responded positively, especially in terms of the relevance of the material to learning needs and the effectiveness of mind-mapping development. A number of neutral and negative responses indicate that there are several aspects that need to be further refined to meet the needs of all user segments. Lecturer feedback places more emphasis on the effectiveness of developing mind mapping in conveying curriculum concepts, indicating the potential for visual development in supporting the learning process. Several other studies in the scientific literature also confirm the effectiveness and practicality of mind mapping-based development in teaching

materials, providing additional validation of the findings of this study. The implications of the results of this practicality test are important for education, especially in the development of innovative and adaptive teaching materials. Although the teaching materials developed are considered practical and effective by the majority of respondents, there needs to be an emphasis on inclusive development that takes into account the diverse needs and learning styles of students. As a critical note, the world of education must always adapt to changing needs from time to time, so responsive and sustainable development is the key to developing teaching materials that are relevant and effective for future generations of students.

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