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DEVELOPMENT OF TEACHING MATERIALS INTEGRATED MATHEMATIC REASONING ABILITY WITH RELIGIOUS VALUES OF MADRASAH ALIYAH STUDENTS

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Abstract

The limited integrated mathematics teaching materials focusing on discussing reasoning are one in learning mathematics problems, especially in preparation for integrated mathematics Olympiads. This study aimed to develop teaching materials for mathematical reasoning abilities integrated with religious values and students' attitudes towards mathematics integrating religious values. This research method is the ADDIE model development research method. At the implementation stage, the teaching materials were tested on research samples from MAN in the Regency and City of Sukabumi, with 76 students as research subjects. The sampling technique was purposive sampling—implemented through the Schoology application. The study results are as follows: teaching materials in integrated mathematical materials and questions to improve critical, creative, and adaptive reasoning skills towards religious values have good results and need to be developed more broadly than various materials with the separate presentation of mathematical material, teaching materials can improve critical, creative, and adaptive reasoning abilities with good results with an average score using module 60 and without module 52 with a maximum score of 100. Students' attitudes towards learning this integration method are in a suitable category. Integrated mathematics learning provides new experiences for students because learning mathematics by learning to understand the contents of the Qur'an verses.

Keywords: Mathematical integration, mathematical reasoning, religious values

Abstrak

Terbatasnya bahan ajar matematika terintegrasi yang fokus membahas penalaran menjadi salah satu masalah dalam pembelajaran matematika, terlebih untuk persiapan olimpiade matematika terintegrasi. Tujuan penelitian ini untuk mengembangkan bahan ajar kemampuan penalaran matematis terintegrasi dengan nilai-nilai religi dan sikap siswa terhadap matematika integrasi nilai-nilai religius. Metode penelitian ini pengembangan model ADDIE. Pada tahap implementasi bahan ajar diujicobakan kepada sampel penelitian berasal dari salah satu MAN di Kabupaten dan di Kota Sukabumi dengan total subjek berjumlah 76 siswa. Teknik pengambilan sampel secara purposive sampling. Pelaksanaan implementasi melalui aplikasi Schoology. Adapun hasil penelitian sebagai berikut: bahan ajar berupa materi dan soal matematika terintegrasi untuk meningkatkan kemampuan penalaran kritis, kreatif, dan adaptif terhadap nilai-nilai religi hasilnya baik dan perlu dikembangkan lebih luas dari berbagai materi dengan sajian materi matematikanya secara terpisah, bahan ajar dapat meningkatkan kemampuan penalaran kritis, kreatif, dan adaptif dengan hasil cukup dengan rata-rata nilai menggunakan modul 60 dan tanpa modul 52 dengan skor maksimum 100. Sikap siswa terhadap pembelajaran metode integrasi ini pada kategori baik. Pembelajaran matematika integrasi memberikan pengalaman baru kepada siswa karena belajar matematika dengan belajar memahami isi kandungan ayat Al-Qur'an.

***Kata Kunci**: Integrasi matematika, nilai-nilai religi, penalaran matematis*

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INTRODUCTION

Teaching materials are essential parts of learning that play a role in students' thinking processes. Mathematics-integrated teaching materials have their meaning so that learning mathematics can link mathematics with other sciences (Choirudin et al., 2021), whether it is the integration of religion, culture, politics, or others. Integration mathematics is not forced but contextualized mathematics in other studies that are by the context mathematics is a part of life (Abdullah et al., 2021; Chew et al., 2019; Sugilar et al., 2019).

The abilities expected by students after learning mathematics are not only practical abilities students can solve problems correctly or are still improving, but more than that, they are expected to be able to apply them in daily activities, which can be in the form of reasoning abilities, thinking, or mathematical values which they indirectly get. If we examine mathematics is not just for mathematics but the integration of mathematics with other substances between subject areas and the Qur'an (Imamuddin et al., 2020; Surur & Pujilestari, 2021).

This perspective will encourage students to think about understanding and interpreting the true nature of learning mathematics. Studying mathematics accompanies interpreting the Qur'an, which is applied in everyday life. The comprehensive view of the Qur'an implies the concept of *tafakkur*, which is seen as very important in every creative thought of civilization's progress in all aspects of life. One of the efforts to integrate mathematics learning is by presenting models or teaching materials that integrate mathematics with the Qur'an. Qur'anic Mathematics emphasizes developing critical, creative, collaborative, and communicative thinking skills (As'ari, 2017).

Integrated mathematics will be more contextual when integrated or interconnected with other fields (Sugilar et al., 2019). Mathematical literacy questions using a cultural context can facilitate students to learn from the local culture about various local cultural values. Integrating science into the Qur'an study is necessary to answer the times' challenges (Imamuddin et al., 2020; Iskandar, 2016; Sofa et al., 2022). When students learn mathematics related to culture, context, and the Qur'an, it is hoped that they will have a deeper understanding of learning mathematics meaning in everyday life and increasingly believe in the greatness of Allah's knowledge so that their faith and piety will increase.

The madrasa science competition (KSM) is an activity held by the Ministry of religion to build scientific competency enthusiasm among madrasahs (Kemenag, 2022). We need to appreciate, support, and prepare this activity properly so that students are ready to compete on a regional scale or up to the national level, one of which is studying integration mathematics material. The competencies expected to be prepared to face global challenges are increasingly complex. The ability to reason critically, creatively, and adaptively is one of the competencies that must be prepared in the 21st century (Alhamuddin et al., 2022; Mutohhari et al., 2021; Panggabean et al., 2021). In addition to other competencies such as collaboration, communication, literacy, and others. Mathematical reasoning is understanding mathematical ideas and concepts (Bieda et al., 2014).

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Limited integrated teaching materials are an obstacle in integrated learning (Hakim, 2021; Kurniati, 2016)or in preparation for students to participate in KSM, one of the competencies expected in KSM is reasoning competence. Several researchers have developed mathematics teaching materials, including ICARE-based and Islamic-integrated mathematics learning tools (Rahmadhani & Wahyuni, 2020). Mathematical teaching materials based on cultural values, Mathematical modules based on Islamic values (Lestari et al., 2020) Integration of mathematics, Islamic values, and technology. From this research, no one has discussed teaching materials for mathematical reasoning abilities that contain high-level mathematical problems. So the focus to develop teaching materials that develop Mathematical reasoning abilities consisting of critical, creative, and adaptive reasoning abilities.

Mathematical reasoning skills or competencies are aspects that students need to pay attention to while learning mathematics. Having critical, creative, and adaptive reasoning skills is essential for students to have given the increasingly complex problems of life, so reasoning is needed in order to be able to respond quickly or solve problems. However, students' adaptive reasoning abilities were still in the low to deficient category; 25 students (69.45%) achieved scores in the 8-16 from a maximum 26.

RESEARCH METHODS

This research is development research using the ADDIE model (analysis, design, development, implementation, and evaluation) (Kurt, 2019) in Figure 1.

Figure 1. ADDIE model

The data used is qualitative and quantitative data obtained from implementing teaching materials and test instruments. The subjects of this study were students of class XI at Madrasah Aliyah Negeri 1 and 2 in Sukabumi City using a purposive sampling technique. As for the respondent's number or research samples who work on or actively answer questions and fill out questionnaires, 52 students came from MAN 1 Sukabumi Regency and 24 from MAN 2 Sukabumi City, so the total subjects were 76 students.

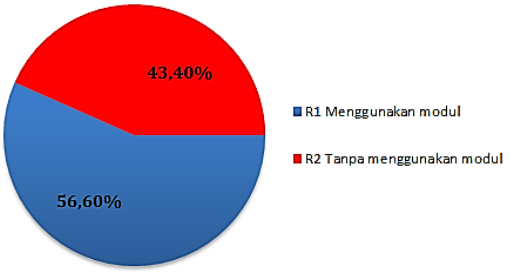

Figure 2. Number of respondents using and without modules

Based on Figure 2, students using modules in learning are 43 students and 33 without modules. This research focuses more on the implementation and attitudes of students toward the mathematics integration module.

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RESULTS AND DISCUSSION

A. ADDIE Model Research

1. Analysis Stage

In this stage, the main activity is analyzing the need for developing teaching materials in learning objectives. This stage consists of needs analysis, student analysis, and material analysis. Needs analysis is carried out to determine what obstacles students face when learning mathematics at school. The student analysis stage was carried out to identify the students' characteristics, the need for mathematics integration material, and the suitability of indicators on the material discussed in school with modules. The results of this identification can be used as a guide in compiling the integration mathematics module. Furthermore, material analysis is carried out to select material to be used in research based on Core Competency (KI) and Basic Competence (KD) in mathematics learning in class XI at Madrasah Aliyah according to the 2013 curriculum.

2. Design Stage

The thing to do at this stage is to design the integration module in such a way by formulating learning objectives, both specific and universal. Then arrange questions to measure the ability to understand students' mathematical concepts and the achievement level of learning objectives that have been formulated, determine learning strategies, and choose and determine learning materials.

3. Development Stage

The development stage is the stage of producing and validating module teaching materials. Things to do at this stage are to produce content, choose media to support product development, and make revisions. Teaching materials that have been completed and the assessment tools are then consulted with media and material expert lecturers. After that, the teaching materials are validated by expert lecturers to test the teaching materials' validity before being tested. The integration of mathematical materials context is in Table 1.

Table 1. Context of mathematical integration

Subject	Material	Integrated Mathematical Context
Arithmetic	basic operations on a number in the context of everyday life	- The Qur'an explains the prohibition of consuming wealth in vanity, namely in QS An-Nisa. - Islam has principles regarding the development of a trading system that must be free from elements of *dharar* (danger), *jahalah* (unclear), and *zulum* (harmful or unfair to one party).
Number	Even And Odd Numbers	- The night of glory is better than a thousand months (QS Al-Qadr: 3). - Allah has 99 names; whoever guards them will enter heaven. Allah is odd (one) and likes odd numbers." (Narrated by Al-Bukhari and Muslim)
set	Slice and join operations	- Surah Al-Fatihah is the first letter in the Al-Qur'an, which we read daily in prayer. In this verse, the value of faith that can be taken is that humans are divided into three groups, namely: (a) People who are given favors, (b) angry people, and (c) people who go astray.

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Subject	Material	Integrated Mathematical Context
Fractional Numbers	division operation	- Surah Al Waqi'ah is the 56th letter in the Qur'an, according to the meaning of Waqi'ah, which means doomsday. In verses 7 to 9 of this letter, the value of faith that can be taken is that on the Day of Resurrection, humans on this earth will be divided into two groups, namely: (a) right group, (b) left group - The science of *Mawaris* or the science of Faraidh, according to the *fuqaha*, is a science with which we can find out who can receive and who cannot receive the inheritance, the level/share received by each heir, and the method of distribution - Furthermore, know, in fact, everything that you get as spoils of war, and one-fifth is for Allah, the Apostle, the relatives of the Apostle, orphans, the poor, and *ibnu sabil*, (thus) if you believe in Allah and in what We sent down to Our servant (Muhammad) on the day of Furqan, which is the day the two armies meet. Allah Almighty over all things QS. Al-Anfal: 41 - The number 2/3 is found in QS. An-Nisa: 11 QS. An-Nisa: 176 QS. Al-Muzzammil: 20. Numbers ½ QS. An-Nisa: 11 QS. An-Nisa: 12 QS. An-Nisa: 25 QS. An-Nisa: 176 QS. Al-Muzzammil: 3 QS. Al-Muzzammil: 20

4. Implementation Stage

Implementation is carried out to obtain data on the effectiveness of the integration module to find out about critical and adaptive thinking skills. At this stage, learning is carried out online using the *Schoology* application. To measure students' critical, creative, and adaptive reasoning abilities, students are given mathematical reasoning questions from the teaching materials. The average test results for students' mathematical reasoning abilities using module 60 and without module 52 with a maximum score of 100. These results are not optimal because, according to students, the test questions given are challenging and have never been worked on before or non-routine questions.

5. Evaluation Stage

Module evaluation is carried out by asking for feedback based on the implementation results or product use using an assessment instrument whose results are research data. The data is then analyzed to conclude whether the teaching materials are appropriate or unsuitable to support the learning process.

B. Development of Mathematical Integration Questions

The development of this question is an integral part of the *development stage* in ADDIE. However, the development process is more detailed. Mathematics is a source of knowledge and a tool for human needs in dealing with social and economic life and exploring the secrets of nature. Mathematics is not just everything related to numbers and numbers. In every letter or verse of the Al-Quran, mathematics is also found. The specific mention of mathematics in the Qur'an is not explicitly stated but implied (Mahmud, 2016) as the mention of numbers which are a basis of

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mathematics. The mention of these numbers shows the attention of the Qur'an to the field of science, especially mathematics. Nor is it by chance or sound origin. Everything has been set with a clear and accurate composition, with no mistakes. For example, in everyday life, namely cutting objects or cakes, has it ever occurred to you that cutting objects or cakes is part of the fractions applied in everyday life?

These fractions are none other than actually the same as we are learning how to distribute things correctly and adequately (Arlin, 2020). The integration questions contained in the teaching materials in the form of modules are obtained from various sources, both KSM questions and sources from the YouTube channel. The form questions before and after the conversion process are in the form of mathematical integration questions.

Table 2. Algebraic mathematical integration questions

Initial Question	Context of Integration
A number x consists of two digits. If the number is doubled by 29 and then subtracted by one, you get the number made up in reverse order. If a zero is inserted between the tens digit and the units digit, a number is obtained whose value is $7\frac{2}{3}$ times the value of x. The number x is...	A number x consists of two digits. If the number is added to twice the number of letters revealed in Medina and then subtracted by one, the number of the two numbers is also obtained in reverse order. If a zero is inserted between the tens digit and the units digit, a number is obtained whose value is $7\frac{2}{3}$ times the value of *x*. The number *x* is...

Table 2 is a matter of mathematics algebra material. In the problem of developing integration, the initial problem is that the mathematical sentence has been stated clearly, so all that remains is to change it to the form of an algebraic equation. However, in the integration question context. The number 29 is associated with the number of letters revealed in Medina.

Table 3. Mathematical combinatorics integration problems

Initial Question	Context of integration
There are five men, six boys, and five women. The number of row arrangements with the provisions of the row of adult men, male anal, and the third row of women is...	There are five men, six boys, and five women. The number of congregational prayer shap arrangements is...

Table 3 is a matter of mathematics combinatorics material. Developing integration is a matter of starting the lineup with the conditions given. Furthermore, in the context of Islamic integration, the question is related to the arrangement of the congregational prayer rooms.

Table 4. Arithmetic mathematical integration questions

Initial Question	Context of Integration
At the base of a water tank, there are three taps. From an entire state, by opening only the first and second taps, the tub can be empty within 70 minutes; if only the first and third taps are	At the base of an ablution tub, there are 3 taps. From a whole state, by opening only the first and second taps, the tub can be empty within 70 minutes; if only the first

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Initial Question	Context of Integration
opened, the tub is empty in 84 minutes; if only the second and third taps are opened, the tub is empty within 140 minutes. If all three taps are opened simultaneously, the water reservoir can be empty within… minutes.	and third taps are opened, the tub is empty in 84 minutes; if only the second and third taps are opened, the tub is empty within 140 minutes. If all three taps are opened simultaneously, the ablution tub can be emptied within… minutes.

Table 4 is a matter of mathematics arithmetic material. In this matter of developing integration, the initial question was a question about a bathtub and three faucets. In the initial context, it asks how long it will take if the taps are opened simultaneously. In Islamic integration, the problem is related to the faucet being opened when it is used for ablution.

Table 5. Arithmetic mathematical integration questions

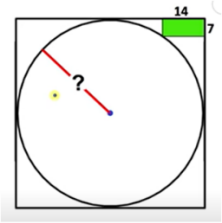
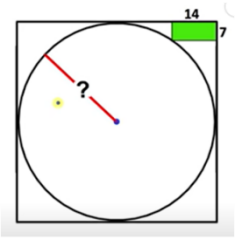
Initial Question	About the context of integration
Determine the length of the radius of the circle in the square! 	**A** village head of Mekarjaya wants to make a well for his people with a radius of r meters, in side wants to make a place to wash with a length of 14 meters, 7 meters wide. What is the radius of the well that Amir will build for the residents of Mekarjaya Village? 

Table 5 is a matter of mathematics arithmetic material. In this integration development problem, the initial problem is determining the length of the circle's radius in the square. In the context of Islamic integration, this problem is associated with the context of people's daily lives.

Table 6. Algebraic mathematical integration questions

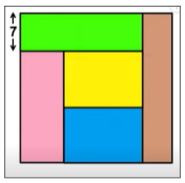
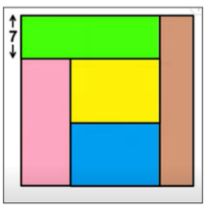
Initial Question	About the context of integration
Determine the area of a square formed from a group of rectangles with the same area! 	Problem Description, write down the steps for solving it. Pak Haji Burhan wants to make a rectangular boarding school dormitory. Determine the area of the dormitory, which is a collection of rectangles in the same area! 

Table 6 is a matter of mathematics algebra material. In this problem of developing integration, the initial problem is to determine the area of a square formed from a set of areas of rectangles that have the same area. In Islamic integration, this problem is associated with the broad context of boarding schools in Islamic boarding schools.

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Table 7. Arithmetic mathematical integration questions

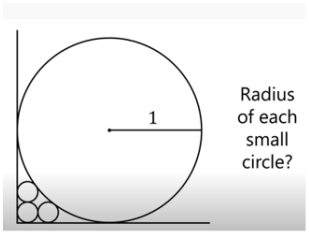
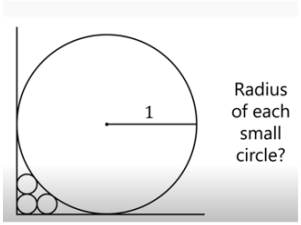
Initial Question	About the context of integration
Determine the length of the radius of the small circle if the radius of the large circle is 1 unit, as shown below! 	The big circle is the Zamzam well with a diameter of 2 meters, around which there are three small Zamzam wells of the same size.  How long is the radius of the small zam-zam well?

Table 7 is a matter of mathematics arithmetic material. In developing an integration problem, the initial problem is to determine the length of the radius of the small circle if the large circle radius is 1 unit, as shown in the figure below. In Islamic integration, this problem is associated with the context of the *zam-zam* well.

Table 8. Quadratic equation mathematical integration questions

Initial Question	Context of Integration
Take the equation $ax^2 - bx - c = 0$. A quadratic equation whose roots are reciprocal is...	For example, the equation $ax^2 - bx - c = 0$.. The quadratic equation with a caliphate of Abu Bakr, b the caliphate of Ali bin Abi Tholib and c the caliphate of Usman bin Affan. A quadratic equation whose roots are reciprocal is ...

Table 8 is a matter of math quadratic equation material. In this integration development problem, the initial problem is determining a quadratic equation whose roots are inverse in a quadratic equation of the form a, b, c. In the context of Islamic integration, $a, b, c$the coefficient is associated with the length of the caliphate, a during the caliphate of Abu Bakar, b during the caliphate of Ali bin Abi Tholib and c during the caliphate of Usman bin Affan leading Muslims.

Table 9. Trigonometry mathematical integration problems

Initial Question	About the context of integration
If a right triangle ABC, with B a right angle with length AB, is a + 1 and angle A = $30^{0,}$ then the length of BC is…	A triangle ABC, with B a right angle with length AB, is a + 1, with a being the number of sacred months in the Hijri month. If angle A = $30^{0,}$ then the length of BC is...

Table 9 is a math problem on trigonometry. In this problem, initially determine one of the side lengths of a right triangle if you know one side and the measure of one of the angles. In the integration context, a value is associated with the number of sacred months in the Hijri month.

C. Attitudes of Students towards Mathematics Integration of Religious Values

The integration of religious values is given through the *Google form* to measure students' attitudes towards mathematics learning. The first question about the integrated

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mathematics module provides new knowledge for me in learning mathematics (class R1 only).

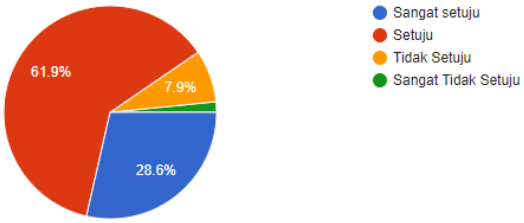

Figure 3. The module provided provides new knowledge for students

Based on Figure 3, 61.9% of students answered that they agreed, and 28.6% answered that they strongly agreed, meaning that most, or 90.5% agreed and strongly agreed that the integrated mathematics module provided new knowledge for me in learning mathematics. So it can be concluded that the modules provided provide new knowledge for students. The second question concerns increased math knowledge after studying the integrated math module (class R1 only).

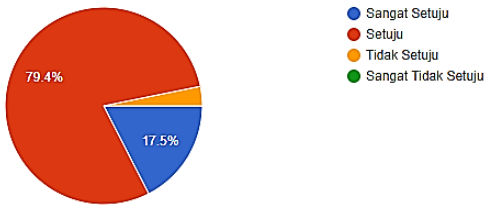

Figure 4. My math knowledge increased after studying the integrated math module

Based on Figure 4, 79.4% of students answered that they agreed, and 17.5% answered that they strongly agreed, meaning that almost all of them, or 96.9% agreed and strongly agreed that my knowledge of mathematics had increased after studying the integrated mathematics module. So it can be concluded that the modules provided can increase students' mathematical knowledge.

Third question: After studying the integrated mathematics module, my curiosity about mathematics in the Qur'an increased (class R1 only).

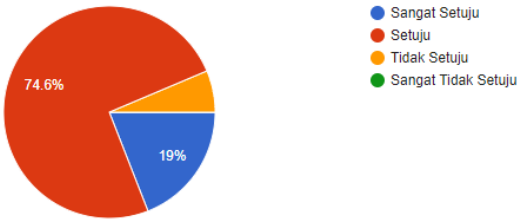

Figure 5. My curiosity about the mathematics in the Qur'an increased

Based on Figure 5, 74.6% of students answered that they agreed, and 19% answered that they strongly agreed, meaning that most, or 93.6% agreed and strongly agreed that my curiosity about mathematics in the Qur'an increased after I studied the integrated mathematics module. So it can be concluded that the modules can increase curiosity about mathematics in the Qur'an.

The fourth question about this integrated mathematics module, understanding mathematics from a religious point of view (class R1 only).

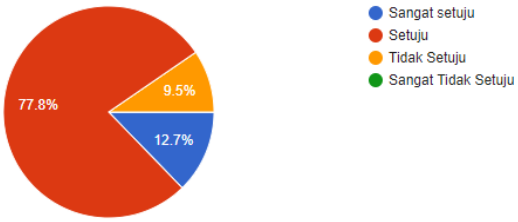

Figure 6. This integrated mathematics module, understanding mathematics from a religious perspective

Based on Figure 6, 77.8% of students answered that they agreed, and 12.7% answered that they strongly agreed, meaning that most, or 90.5%

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agreed and strongly agreed that this integrated mathematics module understands mathematics from a religious point of view. So it can be concluded that the modules can help us understand mathematics from a religious point of view. The sixth question about the math module is still simple, so it needs to be improved with other materials and resources (especially for class R1).

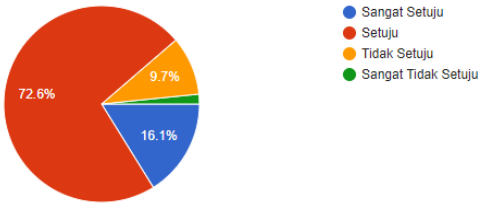

Figure 7. This math module is still simple, so it needs to be improved

Based on Figure 7, 72.6% of students agreed, and 16.1% agreed, meaning that most, or 98.7%, agreed and strongly agreed that this math module is still simple and that material, other materials, and other sources need to be improved. So it can be concluded that the modules provided need to be further expanded on studying the material and its contents. The seventh question about this math module confused me about the math concept. (only class R1)

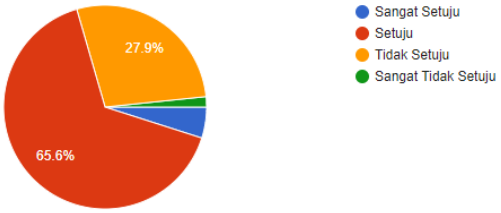

Figure 8. This math module makes me confused to find math concepts

Based on Figure 8, 65.6% of students answered agree, and 27.9% answered they did not agree that this math module made them confused in finding mathematical concepts. So it can be concluded that more than half stated that this module needed to be improved from the aspect of mathematical concepts.

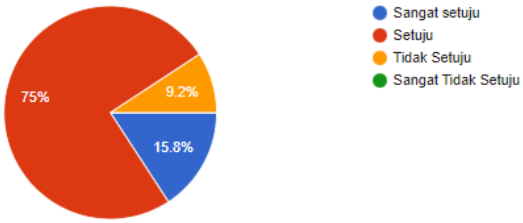

Figure 9. This math module made my curiosity about mathematics in the Qur'an increase

Regarding the eighth question, after I worked on integrated math problems, my curiosity about mathematics in the Qur'an increased. Based on Figure 9, 75% of students answered agree, and 15.8% answered strongly agree, meaning most, or 90.8%, agreed and strongly agreed that after I worked on integrated math problems, my curiosity about mathematics in the Qur'an increased. So it can be concluded that integrated math problems can increase my curiosity about mathematics in the Qur'an.

The ninth question, I like and need to learn integrated mathematics. This math module makes me confused to find the math concept.

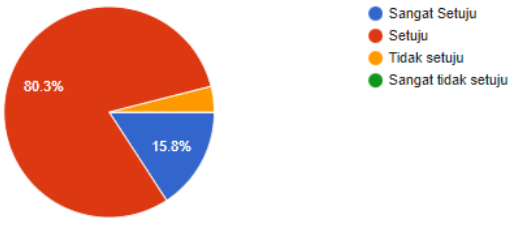

Figure 10. Students need integrated mathematics learning

Based on Figure 10, 80.3% of students answered agree, and 15.8% answered strongly agree, meaning

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almost entirely, or 96.1% agreed and strongly agreed that I like and need to learn integrated mathematics. So it can be concluded that students are happy and need to learn integrated mathematics. The tenth question, by studying integrated mathematics, I understand the role of mathematics in everyday life

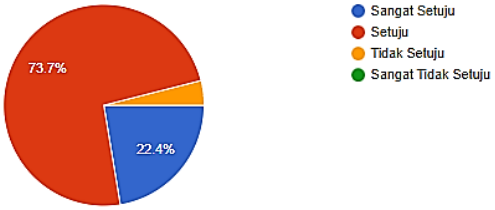

Figure 11. Students know the role of mathematics in everyday life

Based on Figure 11, 73.7% of students answered that they agreed, and 22.4% answered that they strongly agreed, meaning that almost all of them, or 96.1% agreed and strongly agreed that by studying integrated mathematics, I understand the role of mathematics in everyday life. So it can be concluded that by studying integrated mathematics, students understand the role of mathematics in everyday life

For the tenth question, it is better if the mathematical concepts are studied separately so that the mathematical concepts are more precise. 75% of students answered that they agreed, and 15.8% answered that they strongly agreed, meaning that most, or 90.8% agreed and strongly agreed that it is better if the mathematical concepts are studied separately so that the mathematical concepts are more precise. So it can be concluded that mathematical concepts are studied separately so that the mathematical concepts are more precise, followed by mathematical integration problems.

In the eleventh question, I can understand the mathematical material from this integrated mathematics.

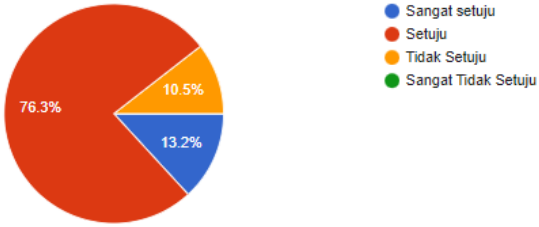

Figure 12. Students can understand mathematical material from an integrated mathematics

Based on Figure 12. 76.3% of students answered that they agreed, and 13.2% answered that they strongly agreed, meaning that most, or 89.5% agreed and strongly agreed that students could understand the mathematical material from this integrated mathematics. So it can be concluded that students can understand mathematical material from integrated mathematics. Second question thirteenth, through integrated mathematics learning, mathematics learning becomes meaningful.

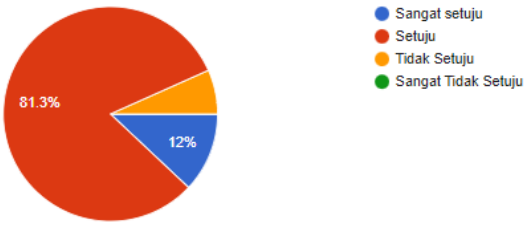

Figure 13. Student responses about learning mathematics become meaningful

It was based on Figure 13. 81.3% of students answered that they agreed, and 12% answered that they strongly agreed, meaning that most, or 93.3 % agreed and strongly agreed that through integrated mathematics learning, mathematics learning becomes meaningful. So it can be concluded that, through learning

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integrated mathematics, learning mathematics becomes meaningful. Question thirteenth, integrated mathematics requires me to think creatively

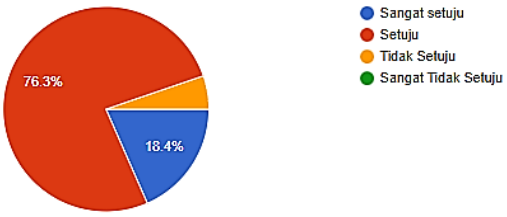

Figure 14. Integrated mathematics requires students to think creatively

Based on Figure 14. 76.3% of students answered agree, and 18.4% answered strongly agree, meaning most, or 94.7%, agreed and strongly agreed that integrated mathematics requires me to think creatively. So it can be concluded that integrated mathematics requires me to think creatively. Question fourteen, integrated mathematics, requires me to think critically.

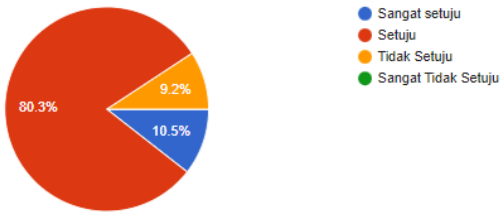

Figure 15. Integrated mathematics requires me to think critically

Based on Figure 15. 80.3% of students answered agree, 10.5% answered strongly agree, meaning most, or 90.8%, agreed and strongly agreed that integrated mathematics requires me to think critically. So it can be concluded that integrated mathematics requires me to think critically. The fifteenth question, integrated mathematics, requires me to think adaptively.

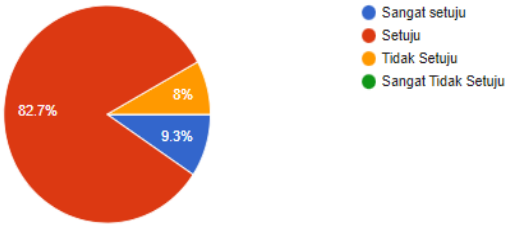

Figure 16. Integrated mathematics requires me to think adaptively

Based on Figure 16. 82.7% of students answered agree, 9.3% answered strongly agree, meaning most, or 90.8%, agreed and strongly agreed that integrated mathematics requires me to think adaptively. So it can be concluded that integrated mathematics requires me to think adaptively. Students can understand mathematical material from integrated mathematics because integrated mathematics requires students to think creatively, critically, and adaptively, and learning mathematics becomes meaningful.

CONCLUSIONS AND RECOMMENDATIONS

The development of teaching materials as a mathematics module has fulfilled the ADDIE stage and is suitable for improving critical, creative, and adaptive reasoning abilities toward religious values. Critical, creative, and adaptive reasoning skills in the medium category. Students' attitude toward learning this integration method is in the excellent category. Integration mathematics learning provides new experiences to students because learning mathematics is accompanied by learning to understand the verses of the Qur'an contents.

For further researches, students want mathematical concepts to be studied separately so that the mathematical concepts are more

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straightforward and continue with mathematical integration questions. The modules must be further expanded into studying mathematics material and its contents.

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