Design of Contextual and Islamic Values-Based Mathematics E-Modules for Junior High School Students

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Abstract

This study aims to understand the current contextual and Islamic values-based mathematics learning process. Then, a product design for a contextual and Islamic values-based mathematics e-module will be produced. The type of research used is Research and Development (R&D) using the ADDIE model, consisting of 5 stages. The subjects of the study were 13 students of class VIII of SMP Islam Qurani Batanghari. Data collection techniques in this study included interviews, questionnaires, and documentation. The results of this study identified that there had been no innovation in the learning process in learning methods that only used general methods, namely lectures, discussions, presentations, and memorization. Our open materials also include student worksheets (LKS) and teacher handbooks. Then this study produced a product in the form of a contextual and Islamic values-based Mathematics E-Module that obtained predicate validity with an average score of 91% and practicality based on student response questionnaires with an average score of 87%, with efficient criteria. Based on the application of this research, the contextual-based Mathematics E-Module and Islamic values in the SPLDV material at the junior high school level can improve the innovative learning process. They can provide students with learning independence to be more independent by using digital-based media.

Keywords: E-Module Design, Mathematics Learning, Islamic Values, Digital Media.

INTRODUCTION

The increasingly rapid development of information technology has a major influence on the world of education. Technology in learning activities can help increase students' learning motivation. Learning based on Islamic principles and values is very important to face the morals of today's teenagers. The Qur'an

greatly influences the emergence of various concepts that humans need.[1] In learning mathematics, logical thinking can be developed, not just calculating well. Mathematics teaches logical thinking based on reason and reasoning so students can understand it well.[2] Learning mathematics as a science can be used to explain various aspects of Islamic teachings. Mathematics learning with Islamic values can be exemplified in geometry material by discussing symmetry in mosque buildings; geometric shapes can represent trigonometry, which can be used to determine the direction of the Qibla.[3]

Good learning is the dream of every teacher and student. Good or quality learning objectives can be achieved through various methods, such as teaching method variations, teaching material development, teaching material resource utilization, and students' work equipment.[4] However, teachers have not been able to apply these methods, so learning seems boring and lacks meaning for students.[5] Contextual education is a learning concept that aims to help students by connecting knowledge with real life. This contextual approach can also help students create a learning concept so that students can understand the material more clearly and not feel bored.[6]

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[1] Anharul Ulum et al., "Humanistic Education Perspective of the Qur'an and Hadith," *AL QUDS : Jurnal Studi Alquran Dan Hadis* 8, no. 2 (August 25, 2024): 378–92, https://doi.org/http://dx.doi.org/10.29240/alquds.v8i2.7806.

[2] Ahmad Rifai Nurdiansyah, Yaya Sukjaya Kusumah, and Bambang Avip Priatna, "The Development of Website-Based Faimathematics in Mathematics Learning to Increase Student Learning Interest," *Jurnal Analisa* 9, no. 2 (December 30, 2023): 122–37, https://doi.org/10.15575/ja.v9i2.27652.

[3] M R Sutisna et al., "Design of a Web-Based Digital Learning Resource Center to Assist Online Learning with Mathematics Content in Primary Schools," *Journal of Physics: Conference Series* 1987, no. 1 (July 1, 2021): 012005, https://doi.org/10.1088/1742-6596/1987/1/012005.

[4] Agung Heru Setiadi et al., "Design of Heyzine Flipbook Based Arabic E-Module as an Alternative Teaching Material for Basic's Level," *An Nabighoh* 26, no. 2 (October 18, 2024): 195–216, https://doi.org/10.32332/an-nabighoh.v26i2.195-216.

[5] Musa Thahir, Yenita Roza, and Atma Murni, "Website Design of Capita Selekta Mathematics Course for Mathematics Education Students," *Journal of Physics: Conference Series* 1470, no. 1 (February 1, 2020): 012092, https://doi.org/10.1088/1742-6596/1470/1/012092.

[6] Citra Citra Ayu Dewi et al., "The Effect of Contextual Collaborative Learning Based Ethnoscience to Increase Student's Scientific Literacy Ability," *Journal of Turkish Science Education* 18, no. 3 (September 28, 2021): 525–41, https://doi.org/10.36681/tused.2021.88.

Various relevant studies regarding contextually based mathematics e-modules and Islamic values for students have three main tendencies that are important for improving the quality of learning. First, studies apply contextual knowledge, where mathematical concepts are connected to real situations relevant to students' daily lives.[7] This approach helps students understand practical applications of mathematics so they are more motivated to learn and solve the real problems they face.[8] Second, this e-module highlights integrating Islamic values into learning material.[9] For example, Islamic stories relevant to mathematical concepts can provide a spiritual dimension that strengthens students' morals.[10] Third, studies on the use of digital technology in mathematics learning. Using e-modules provides flexibility for students to study independently anytime and anywhere. Interactive features such as videos, simulations, and quizzes make learning more interesting and support in-depth mastery of the material.[11] The overall research study on contextually based mathematics e-modules and Islamic values supports students' academic competence. It builds character based on noble values relevant to the digital era's challenges.

Based on an interview at Qur'ani Islamic Middle School Batanghari by one of the class VIII Mathematics teachers, namely Mrs. Dwi Oktavia Hidayati, S.Pd.,

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[7] M Tamur et al., "Assessing the Effectiveness of the Contextual Teaching and Learning Model on Students' Mathematical Understanding Ability: A Meta-Analysis Study," *Journal of Physics: Conference Series* 1657, no. 1 (October 1, 2020): 012067, https://doi.org/10.1088/1742-6596/1657/1/012067.

[8] Darmawan Harefa and Fatolosa Hulu, "Mathematics Learning Strategies That Support Pancasila Moral Education: Practical Approaches For Teachers," *Afore : Jurnal Pendidikan Matematika* 3, no. 2 (October 27, 2024): 51–60, https://doi.org/10.57094/afore.v3i2.2299.

[9] Nursupiamin Nursupiamin, Rafiq Badjeber, and Bagus Bagus, "Development of an Introduction to Basic Mathematics Textbook Integrated with Islamic Values," *Al-Khwarizmi : Jurnal Pendidikan Matematika Dan Ilmu Pengetahuan Alam* 11, no. 1 (March 30, 2023): 83–102, https://doi.org/10.24256/jpmipa.v11i1.3025.

[10] Iman Nasrulloh, Nurdin Ibrahim, and Etin Solihatin, "Improving Mathematical Problem-Solving Skills through the Development of Interactive Digital Modules," *Mosharafa: Jurnal Pendidikan Matematika* 13, no. 1 (October 6, 2024): 17–28, https://doi.org/10.31980/mosharafa.v13i1.1972.

[11] Yayu Laila Sulastri et al., "Development of Notion-Assisted e-Modules for Enhancing Mathematical Communication in Vocational High Schools," *Union: Jurnal Ilmiah Pendidikan Matematika* 12, no. 2 (August 3, 2024): 443–58, https://doi.org/10.30738/union.v12i2.17250.

said that along with advances in time and technology, there needs to be development in teaching materials. The printed books and worksheets circulating so far seem less attractive, not colorful and do not contain images that can motivate and increase students' interest in learning. Apart from that, it does not include student activities in daily life that develop mathematical abilities. As a result, students' responses are less enthusiastic about participating in learning. Another problem, namely students' inability to solve mathematical problems, can be seen when doing daily tasks and learning outcomes. Researchers also interviewed several class VIII students at IQ Batanghari Middle School. Researchers understand from the answers of several students that the printed books they have been using are less interesting and monotonous, so they find it difficult to learn in class because the explanations are too long and the points are not given directly.

These problems show that in implementing the mathematics learning process, there needs to be support for learning materials in E-Modules to support effective learning and increase student independence. Mathematics learning also becomes more interesting, so students do not feel bored. This research aims to (1) understand the contextual-based mathematics learning process and current Islamic values. (2) Produce a contextually based Mathematics E-Module product design and Islamic values in Class VIII SPLDV material by SMP Islam Qurani Batanghari, East Lampung. Apart from that, there is a need for learning related to everyday life so that students can better understand the material and understand the concept clearly in their minds, and of course, it sticks firmly in their memories. Learning must also be related to Islamic values, especially independence, to develop good morals and eliminate bad habits from students.

METHOD

The type of research used is research and development. This research method is used to produce a product and test the product's validity and

practicality.[12] This E-Module development research procedure uses the ADDIE model, which goes through 5 stages, namely: First, this analysis, as the initial stage carried out in the research, is to analyze the needs of students' teaching materials to be developed so that products can be created in a relevant and goal-oriented manner. This research has three stages of analysis: needs analysis, curriculum analysis, and student analysis. Second, Design in preparing the initial design of the E-Module, the things that need to be done include determining the title, formulating a map of core competencies and basic competencies, preparing and designing (cover design, attractive image features as a complement, foreword, table of contents, work instructions, SPLDV material, and interesting skills activities), as well as determining the form of evaluation. Third, Development then assesses the validity of the product; experts assess by filling in a validation sheet. Then, the assessment results will be obtained; if the product has not reached the valid criteria, revisions will be made according to suggestions. Fourth, the product implementation validated by six validators of material, media, and religion experts was tested on 13 class VIII students at the Batanghari Islamic Qurani Middle School on January 13, 2024, to know the students' responses. Fifth, evaluation, after going through the implementation stage, the evaluation stage is then carried out. Because only 13 students (limited) are in the trial phase, the evaluation referred to is from the implementation phase. The evaluation results were obtained from criticism and suggestions from students during the trial, so that the final revision was carried out at this evaluation stage.

In this product trial plan, validation was carried out by material, media, and religious experts to assess the feasibility of the product, and student responses were used to evaluate the practicality of the product. Subject validation consisted of 6 validators, two Mathematics lecturers, one Islamic Religious Education lecturer, two Mathematics teachers, and 1 Islamic Boarding School

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[12] Robert Maribe Branch, *Instructional Design: The ADDIE Approach* (Boston, MA: Springer US, 2009), https://doi.org/10.1007/978-0-387-09506-6.

Ustadzah. The trial subjects in this development research were 13 students of class VIII of SMP Islam Qurani Batanghari as a small group trial to measure the product's practicality. The assessment was conducted on Saturday, January 13, 2024.

Then, the data collection techniques and instruments include: First, interviews were conducted with mathematics teachers and students to get their responses about the contextually based E-Module and Islamic values developed by the researcher. Second, a questionnaire. Questionnaires are used for the validation and product testing stages. Validation is carried out by material expert validators, media experts, and Islamic integration experts using a questionnaire to determine whether the product being developed is valid. Meanwhile, the trial phase is carried out by distributing questionnaires to students after learning using E-Modules, whose validity has been tested to measure the product's practicality. Third, documentation uses contextually based mathematics E-Modules and Islamic values during learning activities.

Next, the research instrument to measure validity is used to determine the validity of the E-Module teaching materials developed by the researcher. Researchers here created a validation sheet with a 5 Likert scale.

Table 1. Product Design Practicality Criteria[13]

Criteria	Percentage	Value Scale
Not practical	00%-20%	5
Less practical	021%-40%	4
Doubtful	041%-60%	3
Practical	061%-80%	2
Very practical	081%-100%	1

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[13] Riduwan, "Dasar-Dasar Statistika" (Bandung: Alfabeta, 2015), 39.

RESULTS AND DISCUSSION

Analysis Stage

Currently, the contextual-based mathematics learning process and Islamic values in Class VIII SPLDV material are being implemented at the Batanghari Islamic Qurani Middle School, where teachers can choose appropriate learning resources, models, and techniques to create a supportive learning atmosphere. Based on an interview with Mrs. Dwi Oktavia Hidayati, S.Pd., as a mathematics subject teacher.

> *"The learning process in mathematics subjects is going well because of our thoroughness in choosing learning models in creating approaches and methods, selecting teaching materials, providing media such as textbooks, interaction patterns with students, and classroom management that can create a pleasant atmosphere. Learning atmosphere. However, the learning methods we use are only general, namely lecture, discussion, demonstration, and memorization; there is no innovation in the learning process. Our teaching materials also include Student Worksheets (LKS) and teacher handbooks. Meanwhile, the learning media we use is limited to PowerPoint and demonstrations in the form of material explanations; due to limited time and skills in other media, we still do not have special expertise."*

In addition, during the interviews, it was revealed that the problems and difficulties faced by mathematics teachers because they have not been able to make the best use of technology, which has the potential to help and assist students' learning. As a result, innovations that support educators in utilizing social media as a teaching and learning tool and to enhance their creativity must be developed. Integrating technology into education is anticipated to improve learning outcomes, accelerate students' progress through the learning process, and give them a greater understanding of how to use it responsibly.

First, analyze needs. At school, mathematics is a mandatory subject for students. In this case, a deep understanding of students' needs is needed to develop religious knowledge and character in this learning. The advantages of this course help create a curriculum that suits the students' moral, intellectual, and emotional growth while considering their social and cultural background. Given how quickly things are changing, educators must incorporate technology, social interactions, and problem-based learning strategies into their lessons to

help students expand their understanding and utilize them responsibly. This way, the information gathered from this research serves as a blueprint for creating and organizing teaching materials using contextually based Mathematics E-Modules and Islamic values.

Second, curriculum analysis. Currently, the curriculum implemented at the Batanghari Islamic Qurani Middle School is an "Independent Curriculum" designed based on three main pillars: response to student needs, the needs of society and the world of work, and government policy. The curriculum structure at this school includes all learning materials held for three years. This curriculum consists of 1 subject, 0-12, local content, and self-development given to students. To determine the graduation rate, each indicator describes student achievement in core competencies, with an expected completion percentage of at least 75%. In addition, schools need to determine minimum completeness criteria, such as Competency Achievement Objectives (TPK), which consider the average ability of students.

Product Design Stage

After designing the product, the next step is to validate it with material, media, and Islamic integration experts. The following are the results from each validator: Material expert validation is carried out by filling in a validation questionnaire assessment sheet, including aspects that the material expert validator must assess. You can see the following link for more details on displaying mathematical product designs based on contextual and Islamic values (https://online.flipbuilder.com/qsfvn/ijae/). Below, we present the design of the learning product.
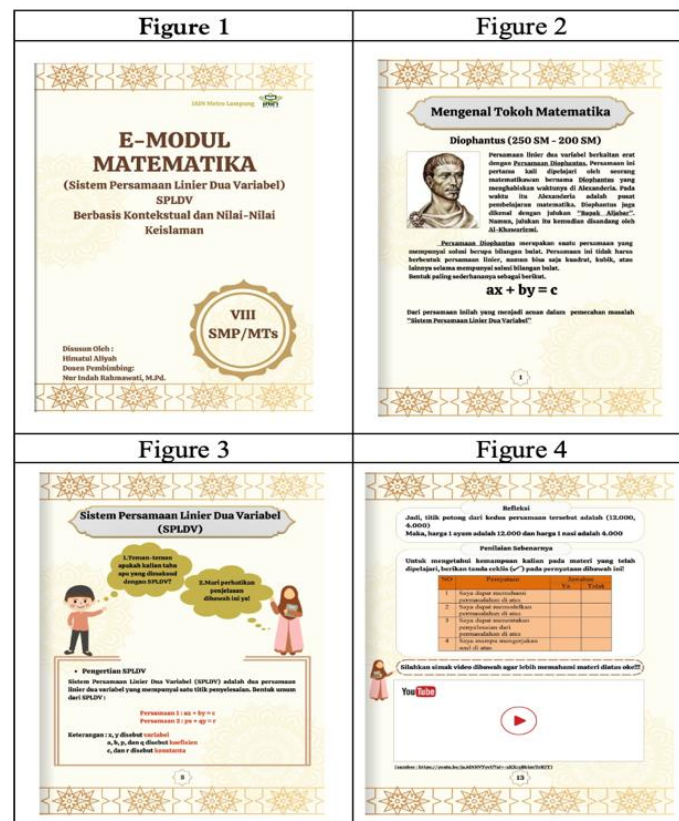
Figure 1. Display of mathematics learning product design

Then, the research provided a questionnaire to determine the practicality criteria assessed by IAIN Metro Lecturer Mrs. Selvi Loviana, M. Pd., and Mathematics Teacher at SMAN 01 Simpang Pematang Mrs. Endang Suyatmi, S.Pd. The following are validation results from material experts.

Table 2. Material Expert Validation Results

No	Rated aspect	Questionnaire Number	Validator Assessment	
			1	2
1	Content Eligibility	1	5	5
		2	4	4
		3	4	5
		4	5	5
		5	4	5
		6	5	5
		7	5	4
		8	5	5
2	Compatibility with the Contextual Approach	9	5	5
		10	5	5
		11	5	5
		12	4	5
		13	4	5
		14	5	5
		15	5	5

		16	5	5
		17	4	5
		18	5	5
3	Feasibility of Presentation	19	5	5
		20	4	4
		21	4	5
		22	5	4
Overall Score			**102**	**106**
Validity Percentage Per-Validator			**93%**	**96%**
Validity Category			**Very Valid**	**Very Valid**
Total Score			**208**	
Average Validity Percentage			**94%**	
Validity Category			**Very Valid**	

From Table 2, it can be seen that the results of the material expert validation show an overall average percentage of 94% and are classified as "very valid," so the resulting contextual-based mathematics E-Module design and Islamic values are considered very valid and can be continued to the practicality test stage.

Media expert validation is done by filling in a validation questionnaire assessment sheet, including aspects the media expert validator must assess. The questionnaire sheet was evaluated by IAIN Metro Lecturer Mrs. Dwi Laila Sulistiowati, M.Pd., and Lecturer at UIN Maulana Malik Ibrahim, Malang, Mr. Bima Fandi A., M.Pd. The following are validation results from media experts.

Table 3. Media Expert Validation Results

No	Rated aspect	Questionnaire Number	Validator Assessment	
			1	**2**
1	Leather Design E-Module (Cover)	1	3	4
		2	4	5
		3	4	4
		4	5	5
		5	5	5
2	Content Design E-Module	6	5	5
		7	4	4
		8	5	5
		9	4	5
		10	5	4
		11	4	4
		12	4	5
		13	5	5

No				
		14	4	5
		15	5	4
		16	4	5
		17	4	5
		18	4	5
		19	5	4
3	Media Flipbook PDF Professional	20	4	4
		21	5	5
		22	4	4
		23	4	4
Overall Score			**100**	**105**
Validity Percentage Per-Validator			**87%**	**91%**
Validity Category			**Very Valid**	**Very Valid**
Total Score			**205**	
Average Validity Percentage			**89%**	
Validity Category			**Very Valid**	

From Table 3, it can be seen that the media expert validation results show an overall average percentage of 89% and are classified as "very valid," so the resulting contextually based mathematics E-Module and Islamic values are considered very valid and can be continued to the practicality test stage. The validation of Islamic integration experts is carried out by filling out a validation questionnaire assessment sheet that includes aspects the Islamic integration expert validator must assess. Religious experts assessed the questionnaire sheet at Qur'ani Batanghari Islamic Middle School, namely Ustadzah Nanda Kurnia Ayu, S.E and Mrs. Faridatil Ummah, S.Pd. The following are validation results from Islamic integration experts.

Table 4. Validation results of Islamic integration experts

No	Rated aspect	Questionnaire Number	Validator Assessment	
			1	**2**
1	Learning Aspects	1	5	4
2	Material Feasibility Aspects	2	5	4
3	Content Feasibility Aspects Al-Qur'an	3	4	5
	Overall Score		**14**	**13**
	Validity Percentage Per-Validator		**93%**	**86%**

Validity Category	Very Valid	Very Valid
Total Score		176%
Average Validity Percentage		90%
Validity Category		Very Valid

Table 4 shows that the validation results from Islamic integration experts show an overall average percentage of 90% and are classified as "very valid," resulting in a contextually based mathematics E-Module and Islamic values , which are considered very good. Valid and can be continued to the practicality test stage. After validation tests by all expert validators, the next step is to revise the E-Module according to criticism and suggestions from each material expert, media expert, and Islamic integration expert. The aim is to increase the feasibility of the E-Module before entering the trial phase.

Product Development Stage

After being validated by experts, the E-Module was tested on students with an assessment carried out through a questionnaire to evaluate students' responses to the practicality of the E-Module. The following is data from the results of the student response questionnaire.

Table 5. Student Response Questionnaire Assessment Results

No	Aspect	Item	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}
1	Attractiveness of Product Design Appearance	1	4	4	5	4	4	5	5	4	4	5	5	5	5
		2	4	4	4	4	4	4	4	3	3	3	5	4	4
2	Product Design Clarity	3	3	4	3	4	4	3	4	5	5	4	5	5	5
		4	4	4	3	4	4	4	4	4	5	4	5	5	5
		5	5	4	5	5	4	4	3	5	4	3	5	4	4
		6	4	4	5	4	4	4	5	4	3	4	5	5	5
3	Clarity of Material	7	4	4	4	5	4	3	5	3	4	3	4	5	5
		8	4	4	4	4	4	5	5	4	5	4	4	5	4
		9	5	4	5	5	4	4	5	5	4	4	5	5	5
		10	4	4	5	4	4	4	4	4	3	4	4	4	5
		11	4	4	4	4	4	3	5	5	4	4	5	5	5
		12	5	4	5	4	4	4	3	5	4	3	5	4	5
		13	4	4	4	4	4	5	4	4	5	4	4	5	4
	Amount		54	52	56	55	52	52	56	55	53	49	61	61	61
Total Percentage Amount			87%												
Criteria			Very Practical												

Based on the table above shows that students' assessments for each indicator are in the practical or very practical category. Of the 13 students, the average evaluation reached 87%, categorized as "Very Practical." So, it can be concluded that the product reaches the practicality category, and students agree to use contextually based mathematics E-Modules and Islamic values as teaching materials in learning.

Discussion

Although there has been no innovation in the way mathematics teachers at SMP Islam Qur'ani implement the learning process, including using website-based applications. However, these efforts have successfully provided students with general knowledge about mathematics learning that has been carried out optimally. Satriani & Prasojo emphasize that teachers can manage the class well if they get the right learning model.[14] Instructors should not only draw from their expertise but also from workshops and other learning opportunities to further strengthen their skills. So, throughout the class, the instructor's skills can be further developed, and they can deal with various problems.[15] Skilled educators also use learning strategies by choosing various media, techniques, and approaches. In addition, the preferred method can have an impact during learning activities.[16] Teachers can also show that technology is needed in this era of modernization to make human activities easier. Because modernization, innovation and rejuvenation are all important to each other.[17] Innovation is

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[14] Rafika Dewi Satriani and Lantip Diat Prasojo, "The Effectiveness of Website-Assisted Learning Multimedia to Improve Mathematics Learning Achievement of Elementary School Students," *Journal of Integrated Elementary Education* 4, no. 2 (September 30, 2024): 120–35, https://doi.org/10.21580/jieed.v4i2.21523.

[15] Yetti, "Peningkatan Kemampuan Guru Dalam Memilih Model Pembelajaran Melalui Workshop Di SMA Negeri 1 Sunggal Kabupaten Deli Serdang," *Jurnal Serunai Administrasi Pendidikan* 10, no. 1 (April 13, 2021): 10–15, https://doi.org/10.37755/JSAP.V10I1.376.

[16] Rusyda Mutanaffisah, Resmi Ningrum, and Ari Widodo, "Ketepatan Pemilihan Pendekatan, Metode, Dan Media Terhadap Karakteristik Materi IPA," *Jurnal Inovasi Pendidikan IPA* 7, no. 1 (July 24, 2021): 12–21, https://doi.org/10.21831/JIPI.V7I1.32622.

[17] Bima Fandi Asy'arie Muhammad Ridho Fatkhul Humam, MulyaPutra, Mahbub Humaidi Aziz, "Transformative Leadership of School Principals in Improving the Quality of Education from an Islamic Perspective," *AL-FAHIM: Jurnal Manajemen Pendidikan Islam* 6, no. 4 (2024): 343–268, https://doi.org/https://doi.org/10.54396/alfahim.v6i2.1457.

defined as something that is perceived or observed by an individual or group of individuals as new. Either innovation or reinvention can be like this.[18] It helps educators overcome barriers to using technology and other media effectively.

Technological advances are having a greater and greater impact on education these days, requiring updates to keep up and adapt to the realities of life.[19] This applies to several academic subjects, including social studies, science, and religion. Any obstacle can be overcome by becoming proficient with the methods and resources. There is no doubt that the use of technology in the classroom will lead to new advances in education.[20] Given that learning via websites can be used as an educational tool, there are undoubtedly many benefits. Teachers should help students gain better information and skills and support their personal growth.[21] It is important to understand the motivation behind teachers' instructions to assist them in this endeavor. Teenagers' use of social media, especially applications that can support students' learning with relevant applications, is an important aspect of their lives and should influence students' use of social media more responsibly.[22]

To obtain the desired product results, it is necessary to conduct initial observations to determine a needs analysis and ensure the product functions

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[18] Fitri Rahmawati, "Kecenderungan Pergeseran Pendidikan Agama Islam Di Indonesia Pada Era Disrupsi," *TADRIS: Jurnal Pendidikan Islam* 13, no. 2 (December 10, 2018): 247, https://doi.org/10.19105/tjpi.v13i2.1752.

[19] Dimas Aditia Bima Fandi Asy'arie, Weni Mariyana, Fauzi Nadziiran Haq, Muhammad Syihab As'ad, "Use of Social Media in Schools and Madrasas: A Systematic Review of Social Studies Learning Innovations," *Southeast Asian Journal of Islamic Education* 7, no. 2 (2024): 31–54, https://doi.org/https://doi.org/10.21093/sajie.v7i2.9051.

[20] Khojir Khojir, Ifah Khoirunnikmah, and Nela Syntha, "Teknologi Sebagai Media Pembelajaran Pendidikan Agama Islam Di Era Revolusi Industri 4.0," *El-Buhuth: Borneo Journal of Islamic Studies* 5, no. 1 (December 30, 2022): 65–77, https://doi.org/10.21093/el-buhuth.v5i01.4373.

[21] Septiani Selly Susanti et al., "Innovative Digital Media in Islamic Religious Education Learning," *Jurnal Pendidikan Agama Islam* 21, no. 1 (June 30, 2024): 40–59, https://doi.org/10.14421/jpai.v21i1.7553; Mohammad Asrori et al., "Islamic Educational and Cultural Values in Indonesian Puppetry Art: A Systematic Literature Review," *Cogent Education* 12, no. 1 (December 31, 2025): 1–19, https://doi.org/10.1080/2331186X.2025.2490445.

[22] R. Roth et al., "A Study of Adolescents' and Young Adults' TikTok Challenge Participation in South India," *Human Factors in Healthcare* 1 (December 1, 2021): 100005, https://doi.org/10.1016/j.hfh.2022.100005.

effectively when applied to students.[23] According to Rusdi, at least in this stage, the priority is to analyze the needs and characteristics of students' media use, determine initial abilities, see the availability of supporting facilities, and analyze the curriculum.[24] With this needs analysis, researchers have a very significant role because it becomes the basis for the design. The goal is to avoid the inappropriate implementation of irrelevance to student needs.[25] In addition, a teacher must have a good understanding of students' initial characteristics and abilities.[26] Therefore, it is necessary to analyze students' initial abilities, which is an important step in identifying their needs and characteristics so that teachers can set appropriate goals and materials for the desired behavior change.[27] In addition, instructors must examine the curriculum to obtain the desired results in assisting students in understanding the subject matter and through the learning process.[28] So, that the learning carried out can be achieved optimally.

CONCLUSION

The ADDIE model was used during the design process of the Contextual and Islamic Values-Based Mathematics E-Module. The developed product ran smoothly and met the criteria of being very valid and feasible to be used and

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[23] Andi Rustandi and Rismayanti, "Penerapan Model ADDIE Dalam Pengembangan Media Pembelajaran Di SMPN 22 Kota Samarinda," *JURNAL FASILKOM* 11, no. 2 (August 26, 2021): 57–60, https://doi.org/10.37859/jf.v11i2.2546.

[24] Muhammad Rusdi, *Penelitian Desain Dan Pengembangan Kependidikan* (Depok: PT Rajagrafindo Persada, 2018).

[25] Bima Fandi Asy'arie, "Tik-Tok Application: Development Of Achievement Learning To Increase Interest In Learning At Madrasah Aliyah Negeri 1 Lampung Timur," *At-Turats* 17, no. 2 (December 22, 2023): 129–45, https://doi.org/10.24260/at-turats.v17i2.2779.

[26] Faris Fathurrohman et al., "Utilization of the YouTube Application in Learning Akidah Akhlak at Senior High School," *Bustanul Ulum Journal of Islamic Education* 2, no. 2 (December 29, 2024): 112–35, https://doi.org/10.62448/bujie.v2i2.99.

[27] Ahmad Taufik, "Analisis Karakteristik Peserta Didik," *EL-Ghiroh* 16, no. 01 (February 25, 2019): 1–13, https://doi.org/10.37092/el-ghiroh.v16i01.71; Moh. Padil et al., "Political Exploration and Islamic Education Methods in Indonesia: A Systematic Literature Review in the Perspective of Sustainable Development Goals (SDGs)," *Journal of Posthumanism* 5, no. 3 (April 12, 2025): 1014–1041, https://doi.org/10.63332/joph.v5i3.839.

[28] Amelia Arnes, Muspardi Muspardi, and Yusmanila Yusmanila, "Analisis Pemanfaatan Platform Merdeka Mengajar Oleh Guru PPKn Untuk Akselerasi Implementasi Kurikulum Merdeka," *Edukatif: Jurnal Ilmu Pendidikan* 5, no. 1 (January 24, 2023): 60–70, https://doi.org/10.31004/edukatif.v5i1.4647.

accepted by SMP Islam Qurani Batanghari students. Based on the results obtained from developing contextually based mathematics E-Modules and Islamic values in terms of validity and practicality aspects. Material, media, and Islamic integration experts carry out evaluations. The results show a very valid category, with an average assessment of material experts at 94%, media experts at 89%, and religious experts at 90%.

Meanwhile, the practicality of the E-Module was evaluated through a student response questionnaire, which showed an average result of 87% in the very practical category. These results indicate that the E-Module developed is very valid and feasible to be used in the mathematics learning process based on Islamic values. However, the researcher provides suggestions for further research to perfect the stages of the model used until the product trial on a larger group, so that it can be known until the evaluation stage to obtain effectiveness in developing this e-module design provides a significant contribution to the use of student digital media.

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