



Integrating Local Wisdom into Moral Education: Development of an Akidah Akhlak E-Module

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Abstract

Akidah Akhlak is an essential component of education, particularly in shaping students' character. However, challenges such as monotonous teaching methods and the lack of engaging digital learning resources reduce students' interest. This study aims to develop and evaluate the effectiveness of a local wisdom-based Akidah Akhlak e-module, using "Gelamai" as a source of inspiration for local cultural values. The e-module teaches commendable and reprehensible moral behavior linked to local cultural values relevant to students' daily lives. The study involved content validation of the e-module by experts, effectiveness measurements through comparisons of pre-test and post-test scores, and practicality evaluations based on feedback from teachers and students. The results indicate that the e-module is highly valid and effective, with significant improvements in students' test scores and positive N-Gain values. Teachers and students found the e-module practical and engaging. These findings demonstrate that a local wisdom-based e-module can enhance students' motivation and understanding of Akidah Akhlak, while contributing to the development of individuals with noble character and social responsibility. The e-module is expected to serve as a more engaging and relevant learning model for students, helping them face global challenges while preserving noble local values.

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INTRODUCTION

Learning Akidah Akhlak (Islamic Creed and Ethics) is one of the most crucial components in the educational system, particularly in shaping students' character to embody noble morals and be equipped to face various contemporary challenges. This subject aims to instill values of virtuous behavior and strong spirituality so that students not only behave ethically but also build a solid foundation of faith (Arbawatih, 2020; Kurniawati, 2015; Supriatna & Rahayu, 2021). Values such as patience (*sabr*), perseverance (*istiqamah*), hard work, creativity, productivity, and innovation are expected to be ingrained as fundamental character traits guiding their lives (Lubis et al., 2024; Munifah et al., 2019; Rianty et al., 2024; Sintiawati et al., 2024; Tambunan et al., 2022; Zuljalal et al., 2024).

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Furthermore, these character values do not merely serve individual purposes but also act as the foundation for social piety, which is essential for building a harmonious, productive, and ethically sound society. With a strong character, students are expected to maintain good relationships with others (Kurniawati, 2015), demonstrate social concern, and contribute positively to their communities. However, in practice, the implementation of Akidah Akhlak learning in schools still faces various challenges. One common issue is the low level of student interest in the subject. Many students feel that Akidah Akhlak lessons are unengaging and irrelevant to their daily lives. This lack of interest negatively affects their understanding of the subject matter and, consequently, their ability to apply Akidah Akhlak concepts in everyday life. This condition aligns with the findings of the author at Madrasah Tsanawiyah Negeri 1 Payakumbuh, based on observations and self-assessment questionnaires. The data obtained is shown in the diagram below.

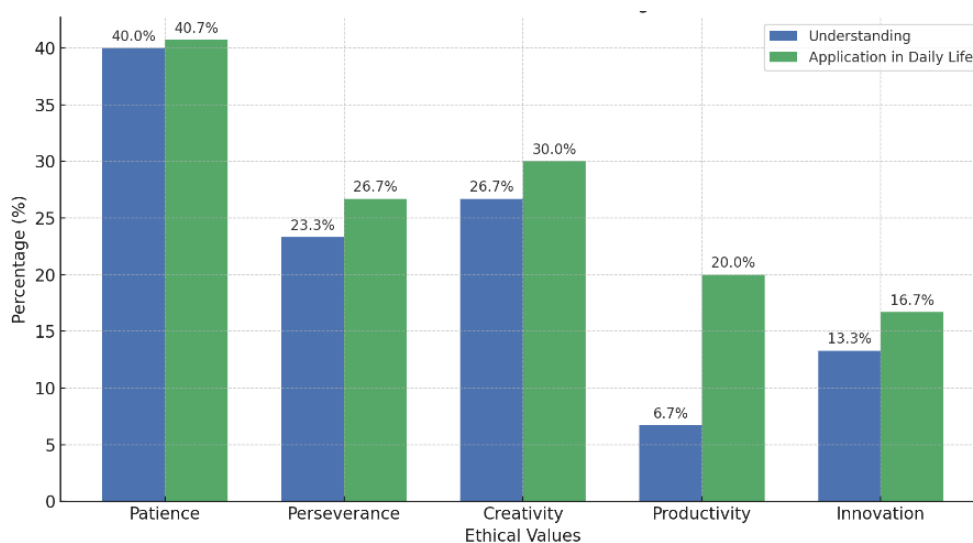


Fig 1. Bar Chart of Student Understanding and Practice of Ethical Values

Description for figure 1 Understanding of values: Patience (40%), Perseverance (23.3%), Creativity (26.7%), Productivity (6.7%), Innovation (13.3%). Application of values in daily life: Patience (40.7%), Perseverance (26.7%), Creativity (30%), Productivity (20%), Innovation (16.7%).

This data indicates that the understanding and application of commendable morals (*sabr, istiqamah*, creativity, productivity, and innovation) among seventh-grade students at Madrasah Tsanawiyah Negeri 1 Payakumbuh remain very low. Interviews with teachers and students reveal that this is mainly due to monotonous teaching methods and a lack of variation in instructional strategies. Additionally, the unavailability of interactive digital teaching modules poses a significant challenge, especially in this digital age where students are highly familiar with technology.

Integrating technology into learning could provide meaningful benefits for Akidah Akhlak education. It can enhance the learning experience by making it more engaging, accessible, and practical. Technology can also help students deepen their understanding of moral values and foster both their spiritual and academic development (Yumna et al., 2024). Local wisdom as a cultural asset and identity of a society can be harnessed to create enjoyable and meaningful learning experiences. However, in practice, Akidah Akhlak teaching materials have yet to fully utilize local

wisdom as a source of inspiration. This is evidenced by the limited number of studies exploring the integration of local wisdom into Akidah Akhlak instruction, as illustrated by the following VOSviewer visualization.

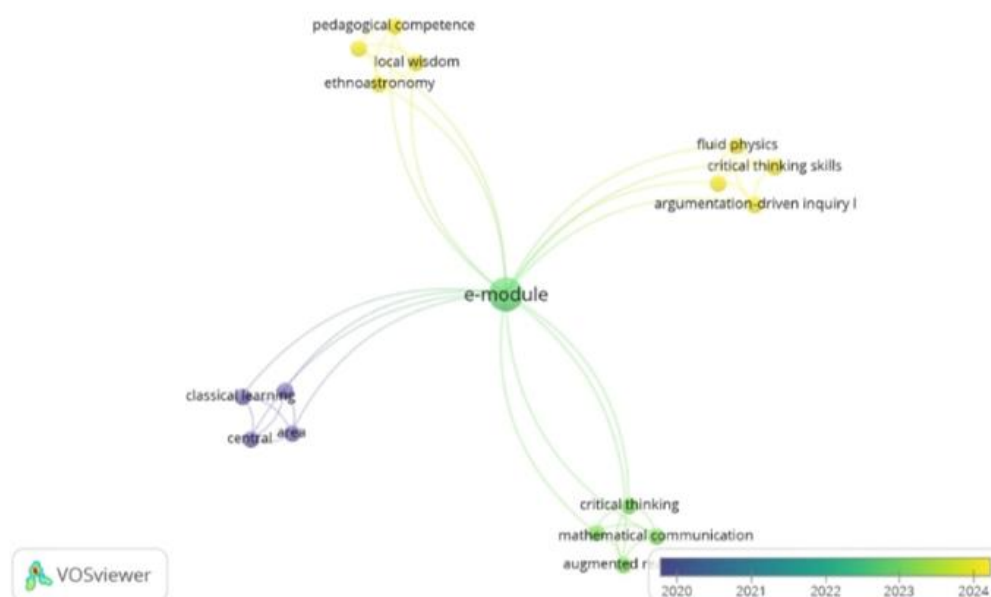


Fig 2. VOSviewer Visualization of Research on Local Wisdom in Akidah Akhlak Learning

The visualization shows a lack of focused research connecting local wisdom with Akidah Akhlak instruction. One cultural element with great potential for integration into Akidah Akhlak lessons is *Gelamai*, a traditional delicacy from West Sumatra, particularly Payakumbuh and surrounding areas (Akbar, 2021). *Gelamai* has a sweet flavor and is made from glutinous rice flour, coconut milk, palm sugar, and sometimes peanuts. It has a chewy and sticky texture and is typically served as a snack or dessert, especially during traditional ceremonies such as *baralek* (festive gatherings).

As part of Minangkabau cultural heritage, *Gelamai* must be preserved. Therefore, it is important to introduce it to younger generations not only its appearance but also the process of making it. The preparation of *Gelamai* is not easy and requires substantial effort: preparing ingredients, cooking the coconut milk, dissolving the palm sugar, roasting peanuts, peeling and grinding them, mixing everything, and slowly cooking over low heat. This process takes considerable time and requires constant stirring to avoid burning and to ensure even cooking. As the mixture thickens, the stirring becomes more laborious. This is where patience and perseverance (*sabr* and *istiqamah*) are crucial to successfully completing the process.

In practical learning, students will also be involved in selling "modernized *Gelamai*" products. Thus, they will not only learn about patience, perseverance, productivity, and hard work through the *Gelamai*-making activity but also develop their creativity and innovation in marketing the product.

The local wisdom-based approach is expected to present learning content that is more relatable to students' real-life experiences, making it easier for them to understand and internalize the ethical values being taught. Since character education requires engaging and enjoyable delivery, integrating these values through local

culture can lead to sustainable implementation in students' daily lives (Yumna et al., 2024). Therefore, it is essential to develop an E-Module for Akidah Akhlak that integrates this local wisdom. This module presents topics related to commendable character, connected with culturally relevant local values, using *Gelamai* as the central inspiration.

The Islamic Education Study Program plays an important role in improving Akidah Akhlak learning. Through the development of this E-Module, the author aims to demonstrate the program's contribution to achieving learning outcomes for Akidah Akhlak, particularly for students in Phase D (equivalent to junior secondary level). The use of the E-Module is expected to make the learning process more interactive and engaging, thereby increasing student interest and motivation (Tambunan et al., 2022). Moreover, the E-Module allows flexible learning tailored to individual learning styles and paces. In conclusion, this study seeks to shape students into morally upright individuals who are competitive in the global era while firmly rooted in Islamic values.

LITERATURE REVIEW

The development of a local wisdom-based e-module in Akidah Akhlak education stems from the need to provide more contextual and relevant learning experiences for students. Previous studies highlight that monotonous teaching methods often reduce students' interest, thus requiring cultural-based innovations to enhance engagement. Integrating cultural values such as *Gelamai* is crucial, as it connects moral education with students' real-life experiences and daily practices.

Research on character education emphasizes that moral internalization is more effective when linked to social and cultural contexts familiar to students. Vygotsky's social constructivist theory supports this approach, suggesting that cultural interaction and environment play a central role in shaping behavior. Therefore, embedding local wisdom into digital modules not only strengthens conceptual understanding but also fosters identity and pride in one's cultural heritage.

Furthermore, studies on digital learning media confirm that interactive e-modules can enhance students' motivation and academic achievement. Technology-based learning models allow for more varied, visual, and engaging content delivery, reducing boredom in the learning process. In the context of Akidah Akhlak, local wisdom-based e-modules have proven effective in reinforcing students' comprehension of commendable and reprehensible behavior in a more practical and applicable manner (Aprianti et al., 2025; Hanita, 2025; Luthfiyani et al., 2025).

Finally, literature on module validity and effectiveness indicates that the success of learning media depends on content validity, effectiveness in improving learning outcomes, and practicality in classroom use. Previous findings support that culturally grounded modules validated by experts and tested through pre- and post-assessments significantly improve student performance. Thus, the development of the *Gelamai*-based Akidah Akhlak e-module represents an important contribution to addressing global educational challenges while preserving noble local values.

METHODS

This study was conducted with seventh-grade students at Madrasah Tsanawiyah Negeri 1 Payakumbuh, West Sumatera, consisting of three classes: 7A,

7B, and 7C. The selection of research subjects was based on the students' varying abilities, grouped into three categories: high, medium, and low. Each class comprised 25 students, resulting in a total of 75 participants. This variation in abilities allowed for a comprehensive evaluation of the local wisdom-based e-module implementation to assess its effectiveness across students with diverse characteristics.

The local wisdom highlighted in this research is *Gelamai*, a traditional Minangkabau product rich in cultural values (Syamsurizal et al., 2023), such as cooperation, perseverance, and honesty. These values were integrated into the Akidah Akhlak e-module as part of the learning material to strengthen students' understanding of commendable morals within the context of local culture. This approach aimed for students to not only grasp the material but also internalize positive values relevant to their daily lives.

A quasi-experimental approach with a pretest-posttest control group design was utilized in this study (Engkizar et al., 2026; Malik & Alam, 2019; Oktavia et al., 2023; Tadol et al., 2025). Before the learning process began, students in all classes took a pretest to assess their initial knowledge of Akidah Akhlak. Subsequently, the experimental class utilized the *Gelamai*-based e-module, while the control class used conventional modules. After completing the learning process, students took a posttest to measure changes in their understanding.

E-Module Validity

The validity of the e-module was assessed by experts Ihsan, (2016) in three areas: language, graphics, and content (Zuljalal et al., 2024). The language aspect covered clarity, readability, and adherence to linguistic norms. Graphics were evaluated based on visual design, aesthetics, and navigation, while content was assessed for its relevance and alignment with learning objectives. A questionnaire instrument was used for data collection, producing a validity score that reflected the overall quality of the e-module (Sintiawati et al., 2024; Zuljalal et al., 2024).

$$\text{Expert validation} = \frac{\text{Empirical score achieved}}{\text{Total expected score}} \times 100$$

Table 1. Validity Interval Criteria

Expert validity	Validation level
81-100	Highly valid
61-80	Valid
41-60	Less valid
21-40	Invalid
0-20	Highly invalid

E-Module Practicality

The practicality of the e-module was assessed through direct experiences of both educators and students. Educators evaluated ease of use, compatibility, and the contribution of the teaching material to achieving learning objectives (Kadir et al., 2019). Meanwhile, students provided feedback on comfort, accessibility, and overall learning experience. Data collected through questionnaires offered insights into the level of acceptance and integration of the e-module into daily learning activities (Sintiawati et al., 2024).

$$\text{Practicality grade} = \frac{\text{Empirical score achieved}}{\text{Total expected score}} \times 100$$

Table 2. Practicality Interval Criteria

Grade of practicality	Level
86-100	Very practical
66-85	Practical
46-65	Less practical
22-45	Impractical
0-21	Very impractical

E-Module Effectiveness

The effectiveness of the e-module was assessed by comparing pretest and posttest results using the normalized gain analysis method (Yonanda et al., 2023). The results demonstrated an improvement in students' understanding and highlighted the impact of the e-module on mastering Akidah Akhlak material, particularly the commendable moral values inspired by the local wisdom of *Gelamai*. Effectiveness testing encompassed the range of average learning evaluation results from 75 students. The analysis involved a comparison of students' pretest and posttest results. The normalized gain formula was employed to determine the level of improvement (Azima et al., 2024; Guntara, 2021; Munifah et al., 2019), as expressed in the following equation. The level of effectiveness of e-module is measured based on the weight of the criteria in the normal gain test according to table 3.

$$\text{Normal Gain} = \frac{\text{Posttest} - \text{Pretest}}{\text{Ideal score} - \text{Pretest}} \times 100\%$$

Table 3. Normal gain level for effectivity

Normal gain (NG)	Effectivity category
NG > 70	High
30 ≤ NG ≤ 70	Moderate
0 ≤ NG < 30	Low
NG < 0	Fail

Research Procedure and Data Analysis

This study involved three main stages: preparation, implementation, and evaluation. During the preparation stage, the e-module was developed and validated by experts. The implementation stage involved integrating the e-module into Akidah Akhlak learning activities. Data from the pretest and posttest were analyzed quantitatively to measure changes in student understanding, while feedback from students and educators was analyzed qualitatively to assess their acceptance and perceptions of the e-module. With a structured methodology, this research ensures that the *Gelamai*-based e-module is valid, practical, and effective in supporting Akidah Akhlak education. The findings are expected to enhance students' learning interest, comprehension, and internalization of commendable moral values.

RESULT AND DISCUSSION

E-modul Akidah Akhlak is an integral part of Islamic Religious Education aimed at instilling noble moral values in students (Adel et al., 2025; Baroud et al., 2025; Zulianah & Zulianah, 2021; Zulkifli et al., 2022). The e-module presents the concepts of commendable and reprehensible morals through engaging, accessible content supported by digital media tailored to the technological needs of modern

learners. A unique feature of this e-module is its alignment with local wisdom from West Sumatra, incorporating *Gelamai*, a traditional Minangkabau delicacy made from glutinous rice, palm sugar, coconut milk, and various flavorings as a symbol of character development.

The process of making *Gelamai*, which requires patience, diligence, and skill, serves as a metaphor for cultivating similar character traits in students, reflected in their daily behavior. Through this approach, the e-module helps students internalize virtues like repentance (*taubat*), obedience (*ta'at*), perseverance (*istiqamah*), sincerity (*ikhlas*), reliance on God (*tawakal*), patience (*sabar*), gratitude (*syukur*), humility (*tawadhu*), tolerance (*tasamuh*), cooperation (*ta'awun*), and other positive attitudes necessary for personal growth. Each ingredient in the *Gelamai* represents a value: glutinous rice symbolizes persistence, palm sugar represents sincerity, and the additional flavors signify the diversity of values students must embrace.

The e-module not only enhances students' understanding of these virtues but also aids them in avoiding negative traits like arrogance (*riya*), hypocrisy (*nifa*), envy, grudges, backbiting (*ghibab*), slander (*fitnah*), and spreading discord (*namimah*). By deepening their knowledge of moral values, students can internalize these principles, fostering both individual and social piety. This character development is vital in facing global challenges, ensuring students can compete ethically in a complex social environment (Engkizar et al., 2024; Kasmar et al., 2019; Murniyetti et al., 2016; Suhifatullah et al., 2020).

E-Module Validity

Based on validation results, this e-module is deemed suitable for use in learning activities, with some minor revisions suggested to enhance its quality and clarity. The e-module scored 92 for language, indicating that its language use is sufficiently clear and understandable. However, validators noted some ambiguous sentences that could potentially confuse readers. They suggested minor revisions to simplify these sentences, ensuring that the material is more easily comprehensible to students. The graphic aspect received the highest score, 95, with comments that the visual design, layout, and overall aesthetics were excellent and did not require any revisions. This indicates that the e-module's appearance meets the expected standards, effectively grabs students' attention, and ensures user-friendly navigation to support a smooth learning process. The content scored 90, with validators recommending the addition of quizzes related to Quranic verses or Hadiths relevant to the material. This addition is expected to deepen students' understanding of the topics presented and connect them to a broader religious context. These quizzes would also serve as brief evaluation tools to assess students' comprehension of the material while linking it to Quranic verses or Hadiths that support the moral values being taught. These validation results ensure that the *Gelamai*-based e-module effectively supports Akidah Akhlak education, equipping students with both religious knowledge and strong moral character.

Table 4. The e-module validity results

No	Aspect	Score	Notes
1	Language	92	Can be used with minor revisions (Comment: Some sentences contain ambiguity)
2	Graphics	95	Can be used without revisions
3	Content	90	Can be used with slight revisions (Comment: Add a quiz about relevant

verses or hadith related to the material)

E-module Practicality

The results of the practicality assessment by the teacher show that this e-module is considered Very Practical, with an average score of 91.28. The assessment was conducted in three different classes: A, B, and C, covering aspects such as language, illustrations, writing and graphics, content accuracy, ease of instilling moral values, and increasing students' interest in learning. This evaluation provides insights into the effectiveness of the e-module as a teaching medium for Akidah Akhlak.

In the language aspect, the e-module received an average score of 91, placing it in the very practical category. Teachers in Class A gave the highest score of 98, indicating that the language used is very clear and easy to understand, while Class C gave a lower score of 80, suggesting that certain sections need improvement. The illustration aspect scored an average of 90. The highest score of 95 from Class C indicates that the illustrations helped students' understanding, while the lower score of 85 in Class B suggests the need for visual adjustments for certain groups of students.

The writing and graphics aspect recorded an average score of 91.67, showing that the layout and writing format support the learning process. The content accuracy aspect received the highest average score of 93.33, emphasizing the relevance of the material in this e-module for Akidah Akhlak learning. Meanwhile, the aspects of ease in instilling moral values and increasing learning interest received average scores of 91.67 and 90, respectively, indicating that this e-module is effective in fostering an understanding of moral values while attracting students' attention to learn. These results demonstrate that the e-module is highly suitable for use in Akidah Akhlak learning.

Table 5. Results of the e-module practicality test with teachers

No	Assessment Aspects	Average Score per Aspect (Class A)	Average Score per Aspect (Class B)	Average Score per Aspect (Class C)	Average score for all classes	Category
1	Language	98	95	80	91	Very practical
2	Illustration	90	85	95	90	Very practical
3	Writing and Graphics	95	95	85	91,6	Very practical
4	Accuracy of the presented material	95	95	90	93,3	Very practical
5	Facilitates educators in instilling morals	95	90	90	91,6	Very practical
6	Helps teachers enhance students' interest in	95	85	90	90	Very practical

No	Assessment Aspects	Average Score per Aspect (Class A)	Average Score per Aspect (Class B)	Average Score per Aspect (Class C)	Average score for all classes	Category
	learning Average	94,67	90,83	88,33	91,28	Very practical

Table 6. Practicality Test Results of the E-Module with Students

No	Assessment Aspects	Average Score per Aspect (Class A)	Average Score per Aspect (Class B)	Average Score per Aspect (Class C)	Average score for all classes	Category
1	Language is easy to understand	96	90	80	88.7	Very practical
2	Illustrations are engaging	95	88	95	92.7	Very practical
3	The content of the story is engaging and easy to understand	94	90	90	91.3	Very practical
4	Increases learning enthusiasm	92	95	88	91.7	Very practical
5	Facilitates understanding and application of morals	90	90	85	88.3	Very practical
	Average	93.4	90.6	87.6	90.5	Very practical

E-module Effectivity

In an effort to improve the quality of Akidah Akhlak learning, the use of e-module-based technology can be an effective innovation. E-modules offer various advantages, such as interactivity, accessibility, and multimedia integration, which can enrich students' learning experiences. To evaluate the effectiveness of e-module implementation in Akidah Akhlak learning, testing should be conducted to compare students' learning outcomes before and after the e-module intervention. The effectiveness is measured by comparing pre-test and post-test scores after the e-module intervention, as well as comparing groups that used the e-module with those that did not. The methods used for analyzing effectiveness include independent sample t-tests to identify significant differences between the two groups, percentage increase in scores to measure student performance improvement, and percentage of normal gain to determine the effectiveness of learning. Normal gain is calculated by comparing the difference between the pre-test and post-test scores with the maximum achievable score difference.

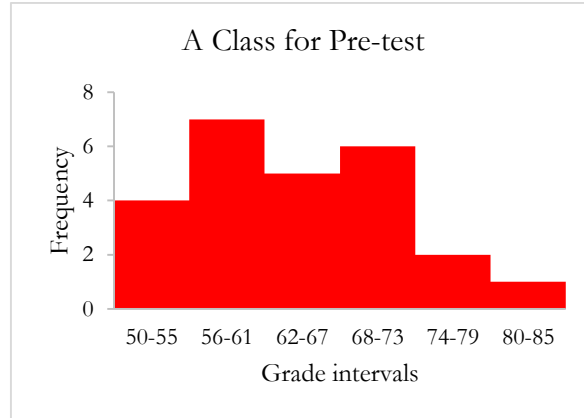


Fig 3. The distribution of pre-test scores for Class A

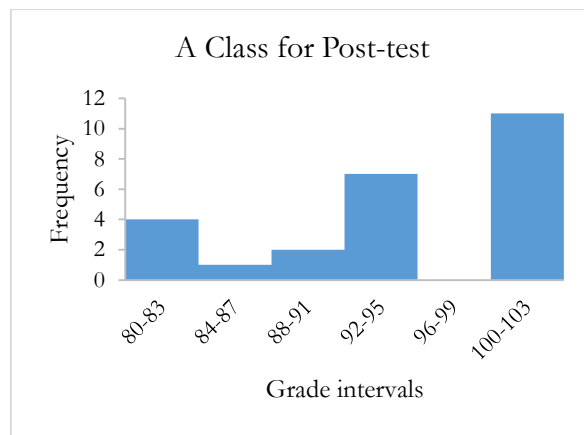


Fig 4. The distribution of post-test scores for Class A

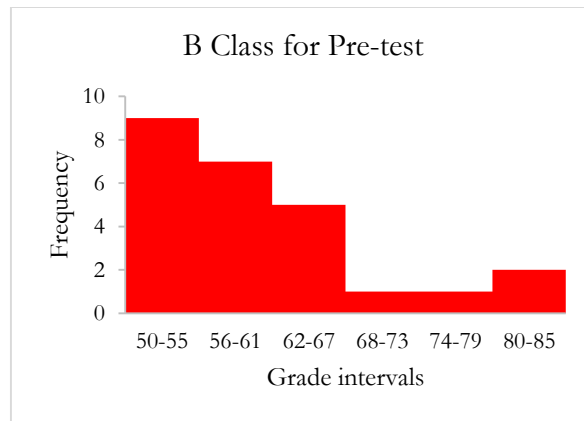


Fig 5. The distribution of pre-test scores for Class B

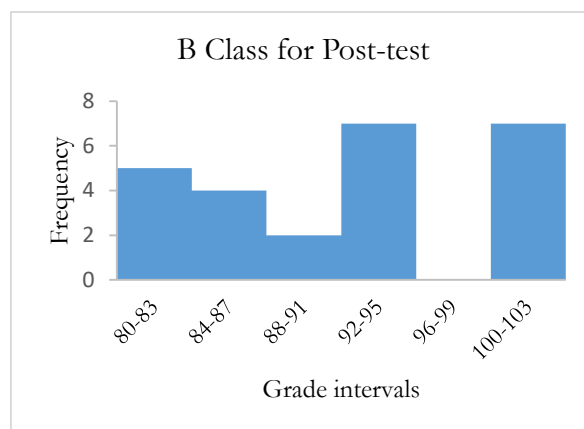


Fig 6. The distribution of post-test scores for Class B

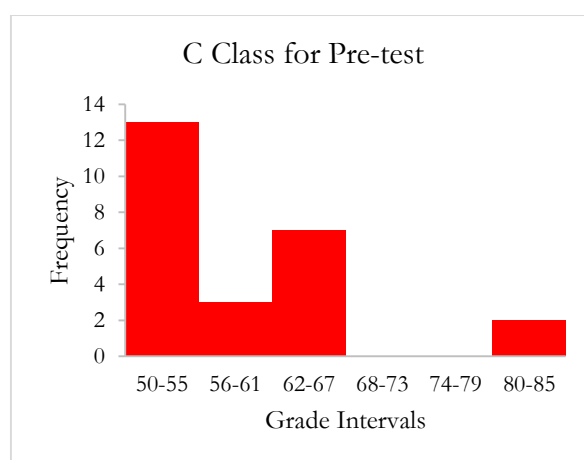


Fig 7. The distribution of pre-test scores for Class C

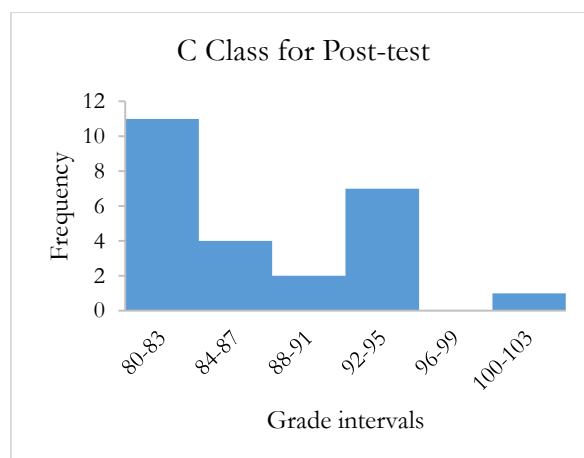


Fig 8. The distribution of post-test scores for Class C

The effectiveness of using the Akidah-Akhlak e-module in improving students' understanding was evaluated through pre-test and post-test results from three classes: A, B, and C. The analysis results show that overall, there was an improvement in the average score from 61.1 on the pre-test to 90.1 on the post-test, with standard deviations of 8.78 and 7.9, respectively. This indicates a significant improvement in understanding after the use of the e-module. Class A

showed the highest increase, with an average pre-test score of 63 rising to 94.4 on the post-test, with standard deviations of 7.9 and 7.4, respectively. This improvement, the highest among the three classes, suggests that students in this class responded positively to the use of the e-module, both in terms of material understanding and the ability to apply the concepts.

In Class B, the average pre-test score was 61.5 with a standard deviation of 9.11, which increased to an average post-test score of 90.5 with a standard deviation of 7.7. The improvement in this class was consistent with the overall results, indicating the effectiveness of the e-module in supporting the learning process. Meanwhile, Class C had an average pre-test score of 58.8 with a standard deviation of 8.8, which increased to 85.5 on the post-test, with a standard deviation of 7.03. Although the improvement in this class was slightly lower than in Classes A and B, the results still show a positive impact of the e-module on students' understanding. The distribution of students' pre-test scores indicated a tendency toward lower scores. This was reflected in the histogram, which showed that many students scored low before the learning intervention. The skewness value greater than 0 indicates a positively skewed distribution, where there is a long tail on the right. This suggests that only a few students scored high, while the majority were in the lower range. This condition illustrates that before the intervention, students' understanding of the material was still limited.

In contrast to the pre-test, the post-test results showed a significant change in the distribution of students' scores. The histogram for the post-test revealed that scores were concentrated in the higher range, indicating improved performance after the learning process. The skewness value being negative indicates a negatively skewed distribution, with the tail on the left. This shows that most students achieved high scores, and only a few students scored low. This change reflects the success of the teaching method in improving students' understanding and overall learning outcomes. However, there is an exception in Class C's post-test data, where the distribution shows a different pattern compared to the other classes. The histogram for Class C shows a skewness value greater than 0 again, indicating a positively skewed distribution. This suggests a small number of students with significantly higher scores compared to the majority of students in the class. This condition may be influenced by specific factors such as student characteristics, variations in the application of the teaching method, or certain challenges during the intervention.

Next, an independent sample t-test was conducted to determine the significant differences between the pre-test and post-test groups based on the average and variance of the data. The hypothesis tested was H_0 , meaning there is no significant difference between the two groups of data, and H_1 , meaning there is a significant difference. A comparison was made between the calculated T value of 6 and the table T value at a 5% significance level with degrees of freedom according to the number of data minus 1. The decision criterion is: if the calculated T is less than the table T value, H_0 is accepted and H_1 is rejected; conversely, if the calculated T is greater than the table T value, H_0 is rejected and H_1 is accepted (Doni et al., 2023). The test results show that the calculated T value is greater than the table T value at a 5% significance level. Based on this criterion, the decision is to reject H_0 and accept H_1 . This means that there is a significant difference between the two groups of data being tested. This difference cannot be attributed to chance, but is supported by a strong statistical foundation.

Table 7. The results of the paired independent sample t-test for pre-test and post-test students

Assessment	Mean	df	calculated T value	critical T value	Sig
A class Pre-Test	63	24	14,48	1,71	0,05
A class Post-Test	94,4	24			
B class Pre-Test	61,5	24	12,14	1,71	0,05
B class Post-Test	90,5	24			
C class Pre-Test	58,8	24	11.86	1,71	0,05
C class Post-Test	85,5	24			

Table 8. Results of testing the effectiveness of e-module

	Average pre-test	Average post-test	Learning evaluation increment (%)	Normal Gain (%)	Effectivity level
A Class	63	94,4	49,84	84,86	High Effective
B Class	61,5	90,5	47,15	75,32	High Effective
C Class	58,8	85,5	45,53	64,85	Moderate Effective
Overall	61.1	90,1	47,55	74,64	High Effective

The research results indicate that the developed Akidah Akhlak e-modul has a very high level of validity. Based on assessments from experts, the aspects of language, graphics, and content were deemed to meet the criteria for effective and engaging learning. The validity score falls within the "very valid" category, showing that this e-modul is suitable for use as a learning medium and is capable of delivering material clearly. This validity aligns with local philosophical values, such as the process of making *gelamai* (traditional Minangkabau sweet). The preparation of *gelamai*, which requires patience, precision, and cooperation, reflects the values of akhlak taught in the e-modul, including patience, hard work, and mutual assistance (*ta'awun*).

From an effectiveness standpoint, data analysis shows a significant improvement in student learning outcomes after using the e-modul. The difference between pre-test and post-test scores, based on the independent sample t-test, shows significant results at a 95% confidence level. Furthermore, the percentage increase in scores and the normal gain analysis indicate an effectiveness level ranging from "moderate" to "high." The learning process using the e-modul also mirrors the *gelamai* philosophy, where each stage must be carried out in the correct order to produce a high-quality product. Similarly, this e-modul helps students understand moral values gradually and deeply, creating a meaningful learning experience.

The practicality of the e-modul also received very high scores based on evaluations from both teachers and students. Teachers assessed that the e-modul is easy to use in teaching activities and contains features that support the teaching process, such as intuitive navigation and well-structured content. Students also expressed that the e-modul is engaging, easy to understand, and motivates them to learn more actively. The learning process facilitated by the e-modul encourages students to internalize moral values such as patience and perseverance, as symbolized in the *gelamai* preparation process.

When comparing the results of this study with previous research, it can be concluded that the Akidah Akhlak e-modul is not only valid and effective but also practical for use in education. The integration of local values, such as the philosophical meaning behind *gelamai* making, strengthens the relevance of this media in shaping students' moral character. This success is expected to serve as a reference for the future development of technology-based learning media.

CONCLUSION

This study concludes that the development and implementation of the Akidah Akhlak e-modul has a significant positive impact on students' learning experiences. The research findings indicate that this e-modul is highly valid, effective, and practical for use in religious education. The validity results show that the content, language, and design of the e-modul meet educational standards, making it a reliable resource for teaching. The effectiveness of the e-modul is demonstrated by a significant improvement in student learning outcomes, based on the comparison of pre-test and post-test scores, as well as the N-Gain scores, which fall within the "moderate" to "high" effectiveness categories. The practicality of the e-modul, as assessed by both teachers and students, underscores its ease of use and its ability to increase student engagement in the learning process.

These findings align with previous research that highlights the potential of digital media in enhancing educational outcomes. With its interactive features, ease of access, and engaging design, this e-modul addresses the limitations of traditional teaching methods, offering a more dynamic and efficient approach to learning Akidah Akhlak. These results emphasize the importance of integrating technology into educational practices, as it provides greater flexibility and relevance for the digitally native generation. The implications of this research are broad, indicating that the e-modul can be a valuable tool in improving the quality of religious education in schools. The success of the Akidah Akhlak e-modul opens up opportunities for the development of digital learning materials in other subjects, while also serving as a model for innovation in technology-based curriculum design. The ongoing integration of technology into education can lead to more personalized, meaningful, and impactful learning experiences, enabling educators to be more responsive to the needs of students in an ever-evolving digital era.

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DECLARATIONS

Author Contribution

Yumna: writing-preparation of original manuscript, conceptualization, visualization, investigation, methodology, **Nurul Majeedah Hamda:** improve language, **Desi Asmarita & Rini Yulia Citra:** improve content, data accuracy.

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The data and language usage in this article have been validated and verified by English language experts and no AI-generated sentences are included in this article.

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Conflict of Interest

The authors declare that this research was conducted without any conflict of interest in the research.

Ethical Clearance

The place or location studied has agreed to conduct research and is willing if the results of this study are published.

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