

## Development of Minangkabau Ethnopedagogic-Based PAI Teaching Module to Improve the Religious Character of Students at UIN Imam Bonjol Padang

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### Abstract

Islamic Religious Education (IRE) plays an important role in fostering students' religious character; however, teaching materials in higher education remain insufficiently connected to local cultural contexts. This study aimed to develop a Minangkabau ethnopedagogy-based IRE teaching module and evaluate its validity, practicality, and effectiveness in strengthening students' religious character at UIN Imam Bonjol Padang. The study employed a Research and Development (R&D) approach using the 4D model, comprising *define*, *design*, *develop*, and *disseminate*. Data were collected through interviews, observations, documentation, questionnaires, and tests. The developed module underwent expert validation and practicality testing involving lecturers and students, followed by effectiveness testing using ANCOVA and N-Gain analysis. Expert evaluation indicated that the module met the criteria for high validity, while lecturer and student responses demonstrated high practicality. The effectiveness analysis showed a statistically significant improvement in students' religious character ( $p < .001$ ), with a mean N-Gain of 0.727, categorized as high. These findings indicate that integrating Minangkabau ethnopedagogical values into IRE teaching materials can provide a contextual and culturally responsive approach to strengthening students' religious character. Nevertheless, as the study was conducted within a single university context, further research across diverse institutional and cultural settings is needed to examine the module's broader applicability.

**Keywords:** *Ethnopedagogy, Islamic Religious Education, Local wisdom, Minangkabau culture, Religious character.*

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### I. INTRODUCTION

Global social transformation, the acceleration of digital technology developments, and changes in the interaction patterns of the younger generation have brought serious implications for the orientation of Islamic Religious Education (PAI) in higher education. In the context of contemporary higher education, PAI is no longer sufficiently understood as a process of transmitting normative knowledge about Islamic teachings, but must focus on the formation of religious character, moral awareness, social responsibility, and students' reflective abilities in responding to the complexities of modern life (Arthur dkk., 2021; Biesta, 2020; Fullan, 2020; Jackson, 2020). The demands of Islamic universities are not only to produce academically superior graduates, but must be able to internalize Islamic values in social life, academic culture, and daily practices substantively (Halstead, 2022; Yusuf dkk., 2023). However, various cutting-edge studies show that PAI learning in universities still faces serious pedagogical problems. Islamic universities tend to be textual, theoretical, and purely cognitive achievement-oriented, so that the process of internalizing students' religious values has not developed optimally (Hasan et al., 2023; Hefniy & Fairus, 2023; Muassomah & others, 2022; Wekke et al., 2023).

This condition is increasingly complex when students live in a digital environment characterized by instant, individualistic, pragmatic, and consumptive culture. As a result, there is a gap between religious knowledge and social practices of religion in daily life (Bauman, 2020; Campbell, 2021; Castells, 2021). This situation demands that PAI learning must be focused on a pedagogic approach that is more contextual, reflective, and relevant to students' life experiences. One of the aspects that affects the effectiveness of learning is the use of teaching modules. The function of the teaching module is not only as a material delivery device, but as a pedagogic instrument that determines the direction of the formation of students' mindset, moral awareness, and social orientation (Richards, 2022; Tomlinson, 2020). In reality, most of the PAI teaching modules in higher education are still

universalistic and do not accommodate students' socio-cultural experiences as an integral part of the learning process (Rahmi et al., 2021). As a result, Islamic learning is often understood in the abstract and lacks connection with the reality of student life.

International education studies show that teaching materials developed based on students' cultural experiences have a significant contribution to improving student engagement, meaningful learning, identity formation, and strengthening the character of students because the learning process is built from a social context that is close to their lives (Banks, 2021; Hammond, 2022; K. A. Morrison dkk., 2008; Santoro, 2021). The development of global education studies, the approach develops through the concept of culturally responsive pedagogy and culturally sustaining pedagogy which emphasizes the importance of integrating students' cultural identities into the education system so that learning is not uprooted from their social roots and life experiences (Ladson-Billings, 2021; McCarty & Brayboy, 2021; Paris & Alim, 2020). Dixson's Research (2021) It shows that culture-based pedagogy has a strong influence on the formation of students' social and moral awareness because the learning process takes place through cultural experiences that are understood directly. In line with Morrison et al. (2022) that education that is responsive to the culture of students is able to increase learning inclusivity and strengthen students' academic involvement more deeply. Reinforced by Jeong et al. (2021) that the local culture-based pedagogic approach has high relevance in facing the educational challenges of the digital era because it allows learners to understand value through their real-life context and social environment.

The integration of local culture in the context of Islamic education, learning requires religious values to be understood more substantively, because religious teachings must be learned through social and cultural practices that live in the community (Halstead, 2022; Jackson, 2020). One of the relevant approaches in this context is Minangkabau ethnopedagogy. Minangkabau ethnopedagogic views community culture as a source of educational values, knowledge, and practices that can be integrated into the learning process (Alhamuddin et al., 2020; Alwasilah et al., 2020). This approach has strong relevance in Islamic education because it allows the internalization of values to take place through the cultural experiences of students so that religious learning does not stop at the normative dimension alone. Minangkabau people, ethnopedagogic approach has a strong philosophical foundation through philosophy Basandi Syarak Custom, Syarak Basandi Kitabullah (ABS-SBK). The philosophy emphasizes that customs and Islam are two elements that support each other in the life system of the Minangkabau people (Azra, 2019; Naim, 2013; Navis, 1984). Values such as deliberation, mutual cooperation, social solidarity, respect for teachers and parents, moral responsibility, and religious discipline have long been the basis of social education for the Minangkabau people (Kato, 2005). In the perspective of Islamic education, these values have a strong relevance to the formation of religious character because they integrate the spiritual, social, and moral dimensions simultaneously (Alhamuddin & others, 2022; Suyadi & others, 2020).

The tradition of surau education in Minangkabau has historically shown the practice of local culture-based education that places religion, morality, and social life of the community as a unit in the process of character formation of the younger generation (Alfurqan, 2020; Fadri & Prayoga, 2025). Fadri and Prayoga's research (2025) explained that the ethnopedagogy surau not only represents the traditional education system of the Minangkabau people, but also shows an Islamic education model that integrates local cultural values with spirituality and the formation of social character. These findings show that Minangkabau culture has great pedagogic potential to be developed in PAI learning in higher education. A study in the Journal of Islamic Religious Education UIN Sunan Kalijaga also shows that PAI learning based on local wisdom has a significant contribution to strengthening the religious character and religious moderation of students because learning takes place contextually and close to the cultural identity of students (Muassomah & others, 2022; Suyadi & others, 2020).

However, the integration of Minangkabau ethnopedagogic values in PAI teaching modules in universities is still relatively limited. Religious learning in higher education in general still uses a general approach and has not optimally utilized students' cultural experiences as part of the process of forming religious character (Hakim, 2020; Hasan et al., 2023). Ikhsan and Afrinaldi (2024) emphasized that teaching materials based on Minangkabau local wisdom are still minimally developed in Islamic education learning, even though the integration of local culture has been proven

to be able to increase student involvement and strengthen character in the learning process. In line with that, Darwis et al. (2025) shows that ethnopedagogic approaches in Islamic education have a significant influence on the formation of religious character and social behavior of learners because learning takes place contextually and close to their cultural experiences. Similar findings by Alhamuddin et al. (2022) emphasizing that Minangkabau cultural values contain dimensions of religiosity, social solidarity, and moral responsibility that are relevant to the development of Islamic-based character education.

A number of previous studies have indeed examined the relationship between local culture and Islamic education. International research shows that the integration of local culture in education has an influence on morale engagement, identity formation, and strengthening the social awareness of students (Banks, 2021; Dixon, 2021; Ladson-Billings, 2021; McCarty & Brayboy, 2021; Paris & Alim, 2020). Meanwhile, research in the Journal of Islamic Religious Education UIN Sunan Kalijaga emphasized that the integration of local culture in PAI learning is able to strengthen character education, religious moderation, and students' contextual learning experience (Muassomah & others, 2022; Suyadi & others, 2020). However, these studies still leave a number of fundamental limitations. First, the majority of ethnopedagogic research still focuses on primary and secondary education, while the context of Islamic higher education has relatively not been studied in depth. Second, previous research generally only utilizes local culture as a learning medium and has not made it an epistemological basis in the systematic development of PAI teaching modules. Third, previous research has more discussed character education in general and has not specifically linked it to the formation of students' religious character through the development of ethnopedagogic-based teaching modules. Fourth, until now there has been no research that specifically develops the Minangkabau ethnopedagogic-based PAI teaching module in the context of UIN Imam Bonjol Padang as an Islamic university that is located in the Minangkabau cultural environment and has a historical proximity to the ABS-SBK philosophy.

Based on these conditions, this research has strong academic and practical significance. Academically, this research seeks to expand the discourse of Islamic education based on local culture through the development of PAI teaching modules that integrate Minangkabau ethnopedagogic values as a pedagogic paradigm in the formation of students' religious character. Practically, this research is expected to produce PAI teaching modules that are more contextual, reflective, and relevant to students' socio-cultural identities so that the process of internalizing religious values can take place in a more substantive and sustainable manner.

The state of the art of this research lies in the systematic integration of Minangkabau ethnopedagogic values into the development of PAI teaching modules in the context of Islamic higher education. The research gap of this research includes: (1) the limited development of ethnopedagogic-based PAI teaching modules in Islamic universities; (2) the integration of the ABS-SBK philosophy in the pedagogic design of PAI learning has not been optimal; (3) the lack of research that links the development of local culture-based teaching modules with the strengthening of students' religious character; and (4) there has been no development of Minangkabau ethnopedagogic-based PAI teaching modules in the context of UIN Imam Bonjol Padang. The novelty of this research lies in the development of a teaching module based on Minangkabau ethnopedagogic that integrates the traditional philosophy of Basandi Syarak, Syarak Basandi Kitabullah as a pedagogical foundation in the formation of students' religious character at UIN Imam Bonjol Padang. This research not only produces teaching module products, but also offers a learning model of PAI based on local culture that is more contextual, reflective, and relevant to the challenges of contemporary Islamic education.

## II. METHOD

This study employed a Research and Development (R&D) approach to develop a Minangkabau ethnopedagogy-based Islamic Religious Education (PAI) teaching module aimed at enhancing students' religious character at UIN Imam Bonjol Padang. R&D was selected because it facilitates the systematic design, validation, and evaluation of educational products while simultaneously generating practical and theoretical contributions to educational improvement (McKenney & Reeves, 2021; Richey & Klein, 2021). Educational design research is particularly suitable for developing

context-based learning interventions that address authentic educational problems through iterative cycles of analysis, design, and evaluation (Plomp & Nieveen, 2021).

The development process adopted the 4D model proposed by Thiagarajan et al. (1974), consisting of Define, Design, Development, and Disseminate stages. However, this study was limited to the first three stages because the primary objective was to develop and evaluate the quality of the teaching module rather than conduct large-scale dissemination. The 4D model remains one of the most widely used frameworks for instructional material development due to its systematic and practical procedures for producing valid, practical, and effective educational products (Rahayu, 2025; Thiagarajan dkk., 1974).

During the Define stage, a needs assessment was conducted through classroom observations, interviews with PAI lecturers, and document analysis to identify learning problems, students' characteristics, and the potential integration of Minangkabau cultural values into PAI learning. The analysis focused on identifying ethnopedagogical values embedded in the philosophy of "*Adat Basandi Syarak, Syarak Basandi Kitabullah*" (ABS-SBK), which served as the conceptual foundation for the module content.

The Design stage involved developing the initial prototype of the teaching module, including learning objectives, instructional materials, learning activities, assessment instruments, and contextual learning scenarios. The module was designed by integrating Islamic values with Minangkabau cultural wisdom to promote meaningful and culturally responsive learning experiences. In addition, research instruments were developed, including expert validation sheets, practicality questionnaires, observation forms, interview guidelines, and religious character assessment instruments.

The Development stage focused on evaluating the quality of the module through validity, practicality, and effectiveness testing. Expert validation involved six validators consisting of one learning model expert, two instructional media experts, two Islamic education experts, and one language expert. The practicality test was conducted with PAI lecturers and students to assess usability, readability, and implementation feasibility. Effectiveness testing employed an experimental and control class design to determine the module's impact on students' religious character development.

This study utilized both qualitative and quantitative data. Qualitative data were collected through observations, interviews, documentation, and expert feedback to support product revision and improvement. Quantitative data were obtained from expert validation questionnaires, practicality questionnaires, and religious character assessment instruments. Quantitative data were analyzed using descriptive statistics, including percentage scores and mean values to determine the levels of validity, practicality, and effectiveness, whereas qualitative data were analyzed through data reduction, data display, and conclusion drawing procedures following an interactive analysis framework (Creswell & Creswell, 2023).

### III. RESULTS AND DISCUSSION

#### A. Results

##### 1. Product Development and Expert Validation

The development process resulted in a Minangkabau ethnopedagogy-based Islamic Religious Education (IRE) teaching module integrating Islamic values with Minangkabau local wisdom, particularly the philosophical principle of *Adat Basandi Syarak, Syarak Basandi Kitabullah* (ABS-SBK). The module was designed to contextualize IRE content through Minangkabau cultural values while supporting the development of students' religious character through learning activities, reflection, discussion, and contextual cases. Following the initial development stage, the module was evaluated by six experts, comprising one instructional design expert, two educational media experts, two IRE subject-matter experts, and one language expert. The evaluation covered the learning model, educational media, learning materials, and language. Expert feedback was subsequently used to refine the module before field implementation.

**Table 1.** Expert Validation Results

| Validation Aspect  | Number of Validators | Score (%) | Category     |
|--------------------|----------------------|-----------|--------------|
| Learning Model     | 1                    | 95.0      | Highly Valid |
| Educational Media  | 2                    | 88.0      | Highly Valid |
| Learning Materials | 2                    | 92.5      | Highly Valid |
| Language           | 1                    | 100.0     | Highly Valid |
| Overall            | 6                    | 93.9      | Highly Valid |

The overall validation score reached 93.9%, indicating that the module met the criteria for a highly valid learning resource. Language received the highest score (100.0%), followed by the learning model (95.0%), learning materials (92.5%), and educational media (88.0%). Although all components were categorized as highly valid, expert feedback identified several areas for refinement, particularly visual presentation, typography, contextual examples, and the explicit integration of Minangkabau ethnopedagogical values.

## 2. Practicality and Product Revision

Following expert validation and initial revision, the module underwent practicality testing involving lecturers and students as its intended users. Three IRE lecturers evaluated the module in terms of implementation and accessibility, integration of ethnopedagogical values, support for religious character development, and language and readability. The lecturer evaluation produced an overall practicality score of 91%, categorized as highly practical, indicating that the module could be implemented with relatively high ease and appropriateness in IRE instruction.

Student practicality testing involved 30 students who had used the module during IRE learning. The assessment covered appearance and attractiveness, ease of use, comprehensibility of the materials, internalization of religious character, and perceived learning benefits.

**Table 2.** Student Practicality Results

| Aspect                                 | Indicator                                                             | Score        |
|----------------------------------------|-----------------------------------------------------------------------|--------------|
| Appearance and Attractiveness          | Attractive and contextually relevant Minangkabau-based design         | 312          |
| Ease of Use                            | Module can be used independently                                      | 305          |
| Material Comprehension                 | Materials are understandable and relevant                             | 318          |
| Internalization of Religious Character | Module supports understanding of Islamic–Minangkabau religious values | 310          |
| Learning Benefits                      | Module supports students' religious awareness                         | 320          |
| <b>Total</b>                           |                                                                       | <b>1,565</b> |

The student assessment yielded 1,565 out of a maximum score of 1,600 (97.81%), placing the module in the highly practical category. Students particularly responded positively to the relevance of the materials and the integration of Islamic values with their local cultural context.

Feedback from lecturers and students was used for further product refinement. Lecturers recommended clarifying the integration of ABS-SBK values across chapters, incorporating religious reflection at the end of each topic, and strengthening contextual examples related to Minangkabau culture. Students similarly suggested adding more cultural illustrations, simplifying selected conceptual explanations, increasing self-reflection activities, and improving the visual presentation.

Post-use interviews provided additional qualitative feedback. Lecturers perceived the module as relevant to IRE learning outcomes and valued its integration of religious and cultural content, while students reported that contextual examples helped them relate Islamic teachings to their everyday cultural experiences. Both groups nevertheless recommended adding more real-life cases and Minangkabau illustrations. These revisions resulted in the final prototype incorporating ABS-SBK as its philosophical foundation, contextual Minangkabau learning materials, religious-character activities, self-reflection, group discussion, and contextual case studies.

### 3. Effectiveness of the Module

The effectiveness test compared changes in religious character between the experimental group using the Minangkabau ethnopedagogy-based IRE module and the control group receiving conventional instruction. Religious character was assessed through indicators of worship-related religiosity, morality, discipline, responsibility, and social concern.

**Table 3.** Pretest and Posttest Religious Character Scores

| Group        | N  | Pretest Mean | Posttest Mean | Mean Increase |
|--------------|----|--------------|---------------|---------------|
| Experimental | 30 | 65.20        | 85.80         | 20.60         |
| Control      | 28 | 64.75        | 73.10         | 8.35          |

Descriptively, the two groups had similar initial mean scores (65.20 and 64.75). Following the intervention, the experimental group increased by 20.60 points, whereas the control group increased by 8.35 points, indicating a larger descriptive improvement among students who used the developed module.

Prior to ANCOVA, the statistical assumptions reported in the study were examined. The Kolmogorov-Smirnov test for residual posttest scores was nonsignificant ( $p = .350$ ), indicating no evidence of departure from normality. Levene's test was also nonsignificant,  $F(1, 56) = 3.086$ ,  $p = .084$ , supporting the homogeneity-of-variance assumption.

**Table 4.** ANCOVA Results for Students' Religious Character

| Source          | Sum of Squares | df | Mean Square | F       | p      | Partial $\eta^2$ |
|-----------------|----------------|----|-------------|---------|--------|------------------|
| Corrected Model | 12,168.903     | 2  | 6,084.452   | 82.242  | < .001 | .749             |
| Class           | 8,950.938      | 1  | 8,950.938   | 120.988 | < .001 | .687             |
| Pretest         | 620.496        | 1  | 620.496     | 8.387   | .005   | .132             |
| Error           | 4,069.028      | 55 | 73.982      | —       | —      | —                |

After adjustment for pretest scores, ANCOVA showed a statistically significant group effect on posttest religious character,  $F(1, 55) = 120.988$ ,  $p < .001$ , partial  $\eta^2 = .687$ . The pretest covariate was also significant,  $F(1, 55) = 8.387$ ,  $p = .005$ , partial  $\eta^2 = .132$ . The group effect therefore represented a large effect within the study sample. The magnitude of improvement was additionally examined using N-Gain.

**Table 5.** N-Gain Results for Religious Character

| Group        | Pretest Mean | Posttest Mean | N-Gain | Category |
|--------------|--------------|---------------|--------|----------|
| Experimental | 65.20        | 85.80         | 0.727  | High     |
| Control      | 64.75        | 73.10         | 0.070  | Low      |

The experimental group achieved an N-Gain of 0.727, categorized as high, whereas the control group obtained an N-Gain of 0.070, categorized as low. Together with the ANCOVA results, these findings indicate that students using the Minangkabau ethnopedagogy-based module demonstrated substantially greater improvement in religious character than students receiving conventional instruction.

### 4. Dissemination

The final stage involved limited dissemination of the developed module. The finalized teaching module was made available digitally to facilitate its use beyond the immediate research setting, accompanied by guidance on its structure, features, and instructional sequence. The dissemination remained limited in scope; therefore, it should be interpreted as an initial distribution of the developed product rather than evidence of its broader implementation across institutions.

## B. Discussion

The findings indicate that the Minangkabau ethnopedagogy-based Islamic Religious Education (IRE) module achieved strong results across validity, practicality, and effectiveness. The module obtained an overall expert-validation score of 93.9%, while practicality reached 91% among lecturers and 97.81% among students. In the effectiveness test, the experimental group

showed a larger improvement in religious character than the control group, with mean scores increasing from 65.20 to 85.80, compared with 64.75 to 73.10 in the control group. After controlling for pretest scores, the group effect remained statistically significant,  $F(1, 55) = 120.988$ ,  $p < .001$ , partial  $\eta^2 = .687$ . These results suggest that the developed module was not only considered appropriate by experts and users but was also associated with substantially better religious-character outcomes within the study context.

The high validity of the module reflects the alignment of its instructional design, learning materials, media, language, and integration of Minangkabau cultural values. This alignment is consistent with educational design research, which emphasizes coherence among theoretical foundations, product design, and implementation contexts (Branch, 2009; Plomp & Nieveen, 2013). The integration of Adat Basandi Syarak, Syarak Basandi Kitabullah (ABS-SBK) provides a culturally meaningful foundation for connecting Islamic teachings with students' socio-cultural environment. From a constructivist perspective, such contextualization may facilitate meaningful learning by enabling students to relate new knowledge and values to culturally familiar experiences (Piaget, 1977; Vygotsky, 1978). Nevertheless, high expert-validation scores alone do not guarantee successful classroom implementation, as the quality of instructional enactment remains critical (McKenney & Reeves, 2019).

The practicality findings further demonstrate that the module was well received by both lecturers and students. Its contextual content, accessible language, and integration of local cultural examples were perceived as facilitating learning, while reflective and independent activities provided opportunities for students to engage actively with the materials. These findings are consistent with culturally responsive and ethnopedagogical perspectives emphasizing the value of connecting instruction with learners' lived cultural experiences (Gay, 2018; Rosa & Orey, 2016). They also correspond with the principles of self-directed learning, in which accessible learning resources can support greater learner responsibility and autonomy (Knowles, 1975). However, culturally contextualized materials should not be assumed to function uniformly across instructional settings, because their implementation may depend on lecturers' ability to interpret cultural values appropriately and connect them meaningfully with disciplinary content.

The effectiveness results provide the strongest empirical support for the developed module. The experimental group improved by 20.60 points, compared with 8.35 points in the control group, and ANCOVA indicated a large adjusted group effect (partial  $\eta^2 = .687$ ). The experimental group also recorded a reported N-Gain of 0.727, categorized as high. These findings suggest that contextualizing IRE through Minangkabau ethnopedagogical values may strengthen the conditions through which students understand and internalize religious values. This interpretation is consistent with experiential learning theory, which emphasizes the relationship among experience, reflection, and subsequent meaning-making (Kolb, 1984), as well as Lickona's character education framework involving moral knowing, moral feeling, and moral action. The module's contextual cases, reflective activities, and integration of religious and cultural values potentially provide opportunities for these dimensions to operate in an interconnected manner.

The findings also extend previous research reporting the potential contribution of Minangkabau local wisdom and culturally contextualized learning to students' religious and moral development (Lucardo et al., 2024). Rather than presenting Islamic values solely as normative concepts, the module situates them within cultural practices familiar to students. In this sense, ABS-SBK functions as a contextual bridge between Islamic principles and students' socio-cultural experiences. Such integration may help explain why students exposed to the module demonstrated greater improvement than those receiving conventional instruction.

Nevertheless, the results should be interpreted cautiously. Changes in questionnaire-based religious-character scores represent measured changes during the study period and do not necessarily demonstrate enduring transformation in students' actual religious behavior. Character development is a longitudinal process, and short-term post-intervention measurements cannot establish whether the observed improvement persists or transfers consistently to everyday behavior. Moreover, the study was conducted within a single university context, limiting the generalizability of the findings. Future research should therefore examine the

module across different institutions and student populations and incorporate longitudinal and behavioral measures of religious character.

Overall, the study provides evidence that integrating Minangkabau ethnopedagogy into IRE teaching materials offers a promising culturally responsive approach to religious-character education. Its contribution lies not merely in incorporating local cultural content, but in systematically connecting cultural values, Islamic teachings, contextual activities, and reflection within the instructional design. The findings therefore support further development and broader testing of local wisdom-based IRE materials while emphasizing that their educational value ultimately depends on sound instructional design, appropriate cultural interpretation, and consistent pedagogical implementation.

#### IV. CONCLUSION

This study demonstrates that the Minangkabau ethnopedagogy-based Islamic Religious Education (IRE) teaching module, developed using the 4D model, achieved high levels of validity, practicality, and effectiveness in supporting students' religious character. Expert validation yielded an overall score of 93.9%, while practicality assessments reached 91% among lecturers and 97.81% among students. The effectiveness analysis further showed that, after controlling for pretest scores, the experimental group achieved significantly higher religious-character outcomes than the control group,  $F(1, 55) = 120.988$ ,  $p < .001$ , partial  $\eta^2 = .687$ , with the experimental group recording a high N-Gain of 0.727. These findings indicate that integrating Minangkabau ethnopedagogical values, particularly *Adat Basandi Syarak, Syarak Basandi Kitabullah* (ABS-SBK), can provide a culturally responsive framework for connecting Islamic teachings with students' socio-cultural experiences. However, because the study was conducted within a single university and assessed religious character over a limited period, further multi-institutional and longitudinal research is needed to examine the module's broader applicability and the sustainability of the observed outcomes.

#### CONFLICT OF INTEREST

*The authors declare that no financial, professional, institutional, or personal interests influenced the development, implementation, analysis, or reporting of this study.*

#### AUTHOR CONTRIBUTIONS

**Ahmad Fadly:** conceptualization, needs analysis, module development, data collection, data analysis, and preparation of the original manuscript. **Mardhatillah:** methodology, supervision, validation process, interpretation of findings, and critical manuscript review. **Mutia Chairunnisa:** development of the theoretical framework, instrument refinement, interpretation of results, and manuscript revision. **Muhammad Kosim:** research supervision, conceptual guidance on Islamic Religious Education and ethnopedagogy, evaluation of the developed module, and substantive review of the manuscript. All authors reviewed and approved the final version of the manuscript.

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#### DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES

*Generative artificial intelligence tools were used solely to support language editing, proofreading, and improvement of the manuscript's clarity and readability. AI tools were not used to generate or modify research data, perform statistical analyses, or determine the study findings and conclusions. All AI-assisted*

*revisions were carefully reviewed and verified by the authors, who retain full responsibility for the accuracy, originality, and integrity of the final manuscript.*

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