International Journal of Learning, Teaching and Educational Research
Vol. 25, No. 2, pp. 763-782, February 2026
https://doi.org/10.26803/ijlter.25.2.34
Received Jan 3, 2026; Revised Feb 9, 2026; Accepted Feb 10, 2026

Reflective Digital Pedagogy in Islamic Religious Education and Religious Character Formation in Higher Education

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Abstract. This study examined the influence of reflective digital pedagogy on students' religious character formation in Islamic Religious Education (IRE) in Indonesian higher education. The study addressed the pedagogical gap between lecture-based instruction and reflective, constructivist, and technology-supported learning aligned with Islamic moral values. An explanatory sequential mixed-methods design was employed. Quantitative data were collected from 140 undergraduate students in Indonesian Language and Literature Education and English Language Education programs at Singaperbangsa University Karawang using structured questionnaires. The quantitative phase was followed by interviews, classroom observations, and document analysis to explore students' and lecturers' experiences in digitally mediated IRE classrooms. Quantitative data were analyzed using descriptive statistics, correlation, and multiple regression, while qualitative data were analyzed thematically. The results showed a significant positive relationship between innovative learning and religious character ($r = 0.61$, $p < .01$), with innovative learning explaining 28% of the variance in religious character ($R^2 = 0.28$). Students reporting higher levels of innovative learning demonstrated stronger moral reflection, self-regulation, and internalization of Islamic values. Qualitative findings indicated that project-based, flipped, and blended learning fostered deeper engagement, empathy, and responsibility, with lecturers acting as moral facilitators in digital learning environments. Key challenges included limited technological infrastructure and uneven digital competence among lecturers. The findings suggest that reflective digital pedagogy enhances both moral and intellectual development in IRE, supporting the integration of faith and technology. Practically, the findings recommend

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strengthening reflective digital pedagogy, lecturer training, and infrastructure support within Indonesian higher education systems.

Keywords: Islamic Religious Education; innovative learning; religious character; moral education; digital pedagogy; higher education; constructivist learning

1. Introduction

Islamic Religious Education (IRE) in higher education has undergone significant transformation as universities increasingly adopt digital and student-centered pedagogies. Prior studies have consistently demonstrated that technology-supported instruction, reflective pedagogies, and character-focused curricula enhance student engagement, moral reasoning, and value internalization. However, existing research has largely focused on Islamic or religion-based programs, descriptive outcomes, or instructional effectiveness, leaving limited empirical evidence on how such innovations produce measurable religious character outcomes among students enrolled in non-IRE academic programs, and which pedagogical or technological mechanisms most strongly account for these outcomes. This unresolved issue constitutes the central research gap addressed by the present study.

The digital turn has reconfigured IRE across Southeast Asia, particularly in Indonesia, by aligning modern platforms with Islamic pedagogical values to build responsive, ethical, and sustainable systems (Wedi et al., 2025). Evidence from Indonesian madrasahs shows that Learning Management System (LMS) integration and flipped classrooms enhance experience while safeguarding values through ethical filtering, faith-informed teacher training, and value-centered design (Wedi et al., 2025). Within Islamic Higher Education, student satisfaction and learning outcomes are influenced more by the embedding of Islamic values than by technological usability alone (Anwar et al., 2025). Institutional conditions— particularly digital infrastructure and cross-stakeholder coordination— support these sociocultural frameworks (Alfisuma et al., 2025).

Teachers serve dual roles as academic and moral facilitators by integrating ritual practices and ethical guidance into digital learning environments (Usman et al., 2025). Students' readiness for online learning further underscores the need for reliable platforms and institutional support (Hamdanah et al., 2024). Nevertheless, while digitally mediated instruction has expanded access and diversified religious content (Pabbajah et al., 2021), assessments based on the Digital Competence Framework (DigComp 2.1) indicate that many educators still demonstrate only moderate digital competence, highlighting the need for sustained professional development that remains consistent with faith-based principles (Abubakari & Kalinaki, 2024).

Despite these developments, several structural and pedagogical obstacles continue to constrain effective technology integration in IRE. These challenges include uneven digital infrastructure, limited access to learning devices, and varying levels of digital literacy among educators and students, as well as the

persistent tension between technological efficiency and religious authenticity (Achruh et al., 2024; Nurhayati & Judijanto, 2025; Siregar et al., 2025). In response, prior studies have emphasized the importance of continuous teacher professional development and explicitly faith-oriented digital pedagogies, including cross-national collaborations such as Indonesia–Malaysia initiatives that align instructional innovation with Islamic ethical frameworks (Abubakari, 2025). At the classroom level, traditional lecture-dominant IRE shows recurrent limits in engagement, contextual relevance, and the cultivation of moral reasoning and empathy (Amirudin et al., 2025). Reflective and participatory models—such as the sufistic "core" character approach grounded in Qur'anic narratives—demonstrate stronger behavioral and character outcomes (Rahmat et al., 2016).

More broadly, holistic character education that integrates cognitive, emotional, social, and spiritual growth remains underdeveloped, where lectures dominate (Firmansyah et al., 2025). Insufficient pedagogical scaffolding during the stages of value transformation, value transaction, and transinternalization constrains the long-term internalization and embodiment of moral values (Firmansyah et al., 2025). Motivation deficits, the pull of global youth culture, and grade-centric accountability regimes dilute character initiatives (Muzayaroh, 2021). In contrast, previous studies have demonstrated that innovative pedagogical approaches—such as service learning, arts-based education, case-based instruction, blended learning, action research, and interdisciplinary integration— support moral and spiritual development across diverse educational contexts(Chongvisal & Boonyarit, 2018; Subiyantoro et al., 2025).

Constructivist learning theories offer a coherent rationale for integrating technology with Islamic values through experience, reflection, interaction, and collaboration (Usman et al., 2025). In this frame, LMSs, virtual laboratories, and digital modules become instruments for character-based learning under conditions of ethical design and ritual coherence(Anwar et al., 2025; Suharyat et al., 2022). However, the integration of religious education within broader conventional higher education systems remains complex, as religious learning objectives must coexist with disciplinary content, assessment standards, and emerging concerns related to artificial intelligence ethics, including data privacy, fairness, and transparency (Ismail et al., 2025).

A converging body of empirical research has linked pedagogical innovation to positive character outcomes. Studies have conceptualized Muslim religious character as a multidimensional construct encompassing intellect, belief, commitment, ritual, experience, and moral consequence (Hajaroh et al., 2025). Quantitative models have demonstrated both direct and indirect effects of character education on moral development, mediated by motivation and learning environment factors (Ristiana et al., 2025). Meta-analytic evidence further confirms a positive association between character education and IRE learning outcomes (Astuti et al., 2024). Despite this growing evidence base, limited research has examined these relationships within non-religion-based university programs or has combined quantitative measurement with qualitative explanation to clarify underlying mechanisms.

In response to the identified research gap, this study was conducted at Singaperbangsa University Karawang to examine the relationship between innovative IRE learning and university students' religious character within two non-IRE programs: Indonesian Language and Literature Education and English Language Education. The research objectives were: (1) to analyze the effect of innovative IRE practices on students' religious character; and (2) to examine differences in students' perceptions of innovation-related moral and spiritual outcomes across disciplinary contexts. Guided by the reviewed literature, the study tested two hypotheses: H1: Innovative learning in IRE positively predicts students' religious character; and H2: Perceptions of innovation's effects differ significantly between the two programs, with stronger effects expected for reflection-oriented dimensions.

2. Methodology

2.1 Research Design

This study employed a mixed-methods research design using an explanatory sequential approach. The quantitative phase was conducted first to measure and statistically verify the influence of innovative learning in Islamic Religious Education (IRE) on students' religious character. The subsequent qualitative phase was designed to explain and contextualize the quantitative results by exploring participants' perceptions and learning experiences. In this study, quantitative data provided evidence of the strength and direction of relationships among variables, while qualitative data offered in-depth explanations of how and why these relationships occurred within classroom and institutional contexts. The rationale for employing this design lies in the complexity of religious character formation, which involves interrelated cognitive, affective, and behavioral dimensions that require both numerical measurement and interpretive understanding, making a single-method approach insufficient (Creswell & Clark, 2017).

The study was grounded in *constructivist learning theory* and *Islamic character education theory*, both of which view knowledge as co-constructed through experience, reflection, and moral practice(Usman et al., 2025). Constructivist theory informed the design of the quantitative instruments and learning indicators, while Islamic character education theory guided the interpretation of moral and spiritual outcomes. These frameworks jointly informed the methodological decision to examine both statistical relationships and qualitative evidence of value internalization reflected in participants' narratives.

2.2 Data Collection

Data collection was conducted between January and March 2025 and consisted of two systematically sequenced phases: quantitative survey administration followed by qualitative inquiry through interviews, observations, and document analysis.

2.2.1 Quantitative Phase:

Data was gathered using a structured questionnaire consisting of 32 items, distributed across three constructs: Understanding of Innovative Learning (Y1; 10

items), Perceived Implications of Innovative Learning on Religious Character (Y2; 14 items), and Perceived Challenges and Opportunities for Implementation (Y3; 8 items). All items were measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Sample items included "Innovative learning activities encourage me to reflect on Islamic values" (Y2) and "Digital learning platforms support my moral self-regulation" (Y2).

The instrument was adapted from prior validated scales on blended learning, reflective pedagogy, and religious character education (Ristiana et al., 2025), with contextual modifications to fit higher education IRE settings. Content validity was established through expert review by two Islamic education scholars and one educational measurement specialist. Internal consistency reliability was acceptable for all constructs (Cronbach's α = 0.82–0.88). The survey was administered electronically via the institutional learning management system and Google Forms.

2.2.2 Qualitative Phase:
Following preliminary quantitative analysis, qualitative data were collected to explain and elaborate the statistical findings. Semi-structured interviews were conducted with participants (students and lecturers) to explore experiences with innovative IRE learning, perceived moral and spiritual development, and lecturer facilitation practices. Each interview lasted 45–60 minutes and was audio-recorded with consent. Classroom observations focused on flipped and project-based IRE sessions, examining student engagement, reflective dialogue, and digital participation. Relevant documents, including syllabi, lesson plans, and student reflective reports, were analyzed to triangulate findings.

2.3 Population of the Study and Sampling Procedure
The population of this study comprised undergraduate students enrolled in non-IRE programs at Singaperbangsa University Karawang, Indonesia, who were taking Islamic Religious Education as part of the general education curriculum. Two programs were selected: Indonesian Language and Literature Education (PBSI) and English Language Education (PBI), representing humanities and language education disciplines, respectively. This purposive sampling strategy enabled comparison across disciplinary contexts while maintaining comparable exposure to the same IRE curriculum framework.

A total of 140 respondents participated in the quantitative phase, consisting of 87 PBSI students and 53 PBI students. Inclusion criteria required that participants were actively enrolled, had completed at least one semester of IRE incorporating digital or reflective pedagogy, and provided informed consent. The qualitative phase involved 12 participants (six lecturers and six students) selected through criterion-based sampling to ensure representation from both programs and varying engagement levels with innovative pedagogy. This sample size aligned with recommendations for achieving thematic saturation in higher education qualitative research (Braun & Clarke, 2021).

2.4 Ethical Considerations

All research procedures adhered to institutional and academic ethical standards. Ethical approval was granted by the Research Ethics Committee of Singaperbangsa University Karawang in January 2025. Participation was voluntary, with informed consent obtained digitally prior to data collection.

2.5 Data Analysis

Quantitative data were analyzed using SPSS version 27. Descriptive statistics summarized means and standard deviations. Instrument reliability was confirmed using Cronbach's alpha coefficients. Independent samples tests examined program-level differences. Pearson correlation analysis assessed relationships among variables, and multiple regression analysis evaluated the predictive effect of innovative learning on religious character after confirming assumptions of normality and multicollinearity (VIF < 2.0). Statistical significance was set at $p < 0.05$.

The qualitative data were analyzed thematically using Braun and Clarke's six-phase framework. Coding was conducted inductively with NVivo 12. Trustworthiness was enhanced through triangulation across interviews, observations, and documents, as well as peer debriefing among the research team. Quantitative and qualitative findings were integrated through joint displays, enabling systematic interpretation of how qualitative themes explained quantitative patterns (Creswell & Clark, 2017).

2.6 Validity, Reliability, and Rigor

To ensure the validity and rigor of the research tools, methods, and findings, multiple quality assurance procedures were applied across the quantitative and qualitative phases. For the quantitative instruments, content validity was established through expert review by three scholars in Islamic education and educational technology, who evaluated item relevance, clarity, and alignment with the study constructs. Revisions were made based on their feedback prior to survey administration.

Internal consistency reliability was assessed using Cronbach's alpha for each construct. The results indicated satisfactory reliability levels: Understanding of Innovative Learning (Y1, $\alpha = 0.82$), Perceived Implications for Religious Character (Y2, $\alpha = 0.86$), and Perceived Challenges and Opportunities (Y3, $\alpha = 0.79$), exceeding the commonly accepted threshold of 0.70. These coefficients demonstrate that the questionnaire reliably measured the intended constructs.

Prior to regression analysis, key statistical assumptions were examined to validate the robustness of the quantitative findings. Residuals were inspected and approximated a normal distribution, multicollinearity diagnostics showed Variance Inflation Factor (VIF) values below 2.0, and tolerance values exceeded 0.50, indicating no multicollinearity concerns. Linearity and homoscedasticity were assessed through residual plots and were found to be acceptable. These checks confirm the appropriateness of the regression model used to estimate the effect of innovative learning on students' religious character.

For the qualitative phase, trustworthiness was ensured through methodological triangulation, peer debriefing, and iterative coding. Data from interviews, classroom observations, and instructional documents were cross-checked to enhance credibility, while an audit trail of coding decisions supported dependability and confirmability. To strengthen transferability, rich contextual descriptions of the institutional setting, learning practices, and participant characteristics were provided.

Finally, validity of the overall findings was reinforced through mixed-methods integration. Quantitative results identifying significant relationships were systematically compared with qualitative themes to examine convergence and explanation. This integration confirmed that statistical patterns—such as the positive effect of innovative learning on religious character—were supported by participants' experiential accounts, thereby enhancing the explanatory validity of the study's conclusions.

3. Results and Findings

The results are presented sequentially in accordance with the research objectives outlined in the Introduction. Quantitative findings are first reported to address Objective 1 (the impact of innovative IRE learning on students' religious character), followed by comparative analyses addressing Objective 2 (differences between PBSI and PBI students). Qualitative findings are then presented to explain and contextualize these quantitative results.

3.1 Quantitative Results

3.1.1 Descriptive Analysis

The quantitative phase included 140 valid responses: 87 students from the Indonesian Language and Literature Education (PBSI) program and 53 students from the English Language Education (PBI) program. Three constructs were analyzed: understanding of innovative learning (Y1), perceived implications of innovative learning for religious character (Y2), and perceived challenges and opportunities in implementation (Y3). Descriptive statistics revealed uniformly high mean values across these constructs, indicating that respondents held positive attitudes toward innovation and its moral-educational potential.

Before presenting the numerical results, it is important to note that these descriptive findings establish the foundation for interpreting subsequent inferential analyses. They provide a snapshot of the students' overall understanding and attitudes before exploring the statistical relationships among variables. To ground subsequent analyses, Table 1 reports the descriptive frequency statistics for the key grouping variables used in the study.

Table 1: Descriptive Frequency Statistics

Statistics	Study Program	Gender
N Valid	140	140
Missing	0	0
Mean	1.38	1.84
Median	1.00	2.00
Standard Deviation	0.487	0.365
Variance	0.237	0.133
Range	1	1
Minimum	1	1
Maximum	2	2

The summary in Table 1 confirms the completeness of the dataset and indicates a balanced demographic distribution between the study programs. Although female students were slightly more represented, no significant gender-related variations were found in later analyses. These figures demonstrate a balanced sample distribution supporting the appropriateness of inferential tests.

3.1.2 Inferential Analysis

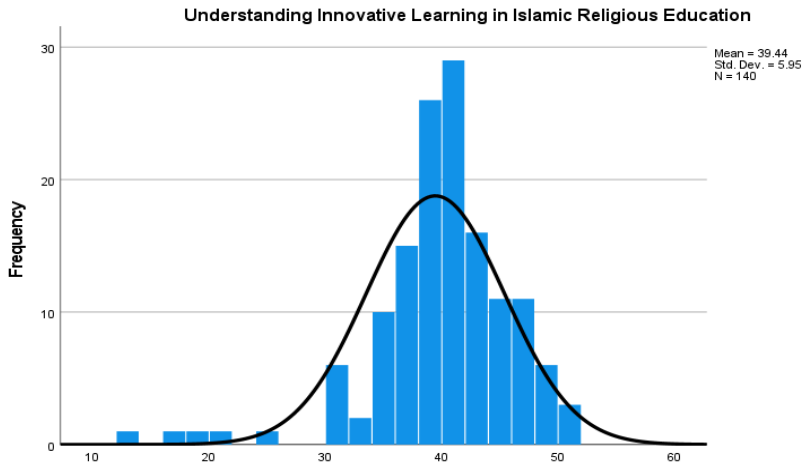
To determine whether significant differences existed between PBSI and PBI students, independent-samples t-tests were conducted. The analysis showed no significant differences in understanding of innovative learning ($p = 0.287$) and for perceived challenges and opportunities ($p = 0.412$). However, a significant difference emerged for one indicator under Y2—reflective moral discussion (Y2.9)—with $p = 0.037$ and Cohen's $d = 0.514$, representing a moderate effect size.

This suggests that PBSI students reported stronger perceived moral gains from reflective discussions compared to PBI students, possibly due to the nature of their disciplinary training, which emphasizes introspection and textual analysis. To enhance clarity and align the analysis with the second research objective, the results of the difference tests, correlational analysis, and regression model are summarized in Table 2, which presents the comparative statistical outcomes between PBSI and PBI students across the measured indicators.

Pearson's correlation analysis further supported a positive relationship between Y1 and Y2 ($r = 0.61$, $p < 0.01$), implying that students with greater understanding of innovative learning approaches demonstrated stronger religious character development. This result suggests that awareness and comprehension of pedagogical innovation are closely aligned with moral and spiritual internalization. A multiple regression model was then tested to examine the predictive influence of innovation on students' religious character. The regression model was statistically significant ($F(2,137) = 12.84$, $p < 0.001$, $R^2 = 0.28$), indicating that innovative learning variables explained 28% of the variance in religious character outcomes. Although other contextual and personal factors remain influential, this finding confirms that pedagogical innovation significantly contributes to religious character formation among university students.

Table 2: Comparative Statistical Results Between PBSI and PBI Students

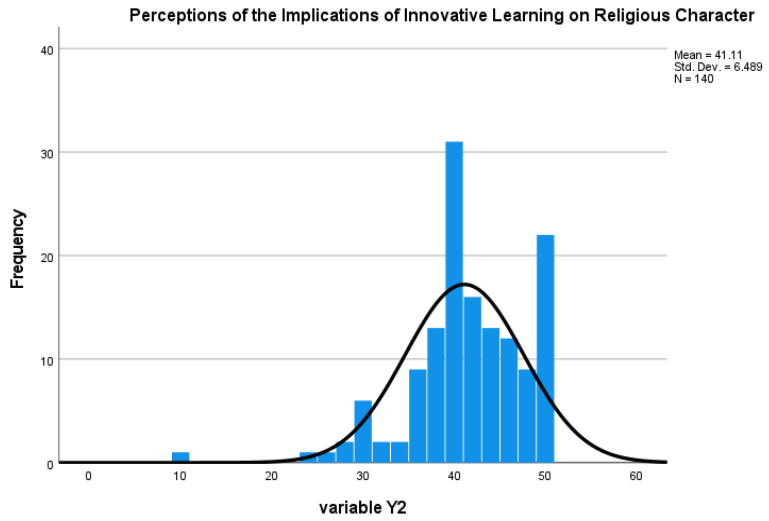
Analysis Type	Variable / Indicator	Statistical Result	Effect Size	Interpretation
Independent-samples t-test	Understanding of Innovative Learning (Y1)	$p = 0.287$	—	No significant difference between PBSI and PBI students
Independent-samples t-test	Perceived Challenges and Opportunities (Y3)	$p = 0.412$	—	No significant difference between PBSI and PBI students
Independent-samples t-test	Reflective Moral Discussion (Y2.9)	$p = 0.037$	Cohen's $d = 0.514$	Moderate difference, PBSI > PBI
Pearson correlation	Y1 × Y2	$r = 0.61$, $p < 0.01$	—	Strong positive association
Multiple regression	Innovative Learning → Religious Character	$F(2,137) = 12.84$, $p < 0.001$	$R^2 = 0.28$	Innovation explains 28% of variance



(Source: Research Survey Data, 2025)

Figure 1: Distribution of Understanding of Innovative Learning in Islamic Religious Education

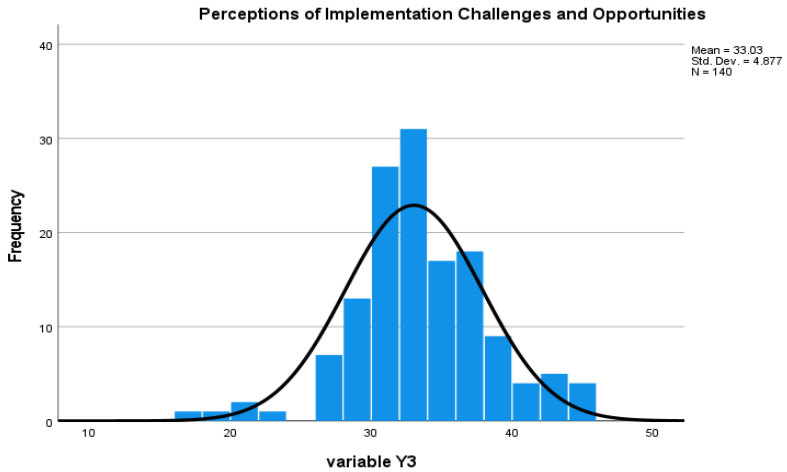
The bar chart in Figure 1 depicts a right-skewed distribution, where most students rated their understanding of innovative learning near the top of the scale, confirming a strong collective grasp of modern educational paradigms within Islamic contexts.



(Source: Research Survey Data, 2025)

Figure 2: Distribution of Perceptions of the Implications of Innovative Learning on Religious Character

To interpret the distribution of scores, respondents' mean values were classified into three levels based on the Likert-scale interval method. Using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), the interval width was calculated as (5 − 1) / 3 = 1.33. Accordingly, mean scores ranging from 1.00–2.33 were categorized as low, 2.34–3.66 as moderate, and 3.67–5.00 as high. This classification provides a standardized and transparent basis for interpreting the quality of students' perceptions shown in Figure 2. As illustrated in Figure 2, the histogram shows that the majority of responses fall within the high category, reflecting a clear perception that innovative learning enhances moral reflection and spiritual awareness. Only a minor segment of respondents indicated moderate or low agreement levels.



(Source: Research Survey Data, 2025)

Figure 3: Distribution of Perceptions of Challenges and Opportunities for Implementation

Figure 3 presents a bar chart highlighting that infrastructural limitations and lecturer readiness were more frequently cited as barriers than student motivation. These data help contextualize institutional constraints affecting the broader implementation of innovative learning. Together, these quantitative findings provide robust evidence that innovative pedagogies positively influence students' religious character formation while also identifying critical institutional barriers requiring attention.

3.2 Qualitative Results

The qualitative findings complement and substantiate the quantitative results by providing verbatim evidence of how innovative learning practices shape students' religious character. Interview excerpts from students and lecturers are presented to support and triangulate the quantitative constructs (Y1, Y2, and Y3). Four interrelated themes emerged: integration of spiritual values, lecturers as innovative facilitators, challenges in implementation, and the impact of innovation on character formation.

3.2.1 Integration of Spiritual Values in Learning Activities

Students consistently reported that innovative learning activities facilitated moral reflection and value internalization, aligning with the high Y2 scores observed quantitatively. One PBSI student explained: "When we worked on community projects, I realized that religious learning is not only about memorizing concepts but about responsibility and empathy in real life." (Student–PBSI) Another participant noted that reflective discussions helped translate religious knowledge into behavior: "The reflection sessions made me think about how Islamic values guide my daily decisions, not just my exam answers." (Student–PBI).

3.2.2 Lecturers as Innovative Facilitators

Lecturers played a central mediating role in shaping students' understanding of innovation (Y1) and its moral implications (Y2). One lecturer emphasized the intentional integration of ethics into digital pedagogy: "Technology alone does not build character. I guide students to reflect ethically so that digital activities remain aligned with Islamic values." (Lecturer–IRE) Another lecturer highlighted facilitation over instruction: "My role is not only to deliver content but to help students question how faith and learning connect in online discussions." (Lecturer–IRE).

3.2.3 Challenges in Implementation

Consistent with Y3 quantitative findings, participants described structural and pedagogical constraints affecting innovation. One lecturer noted: "Sometimes students are motivated, but unstable internet access limits how far we can apply innovative methods." (Lecturer–PBI) A student similarly remarked: "I like interactive learning, but not everyone has the same access or digital skills, so it can be challenging." (Student–PBSI).

3.2.4 Impact of Innovative Learning on Religious Character

Participants' accounts illustrate how understanding innovation (Y1), positive moral implications (Y2), and managed challenges (Y3) collectively contributed to character development. One student reflected: "The learning activities made me

more aware of my behavior outside class. I started to evaluate whether my actions matched what I learned." (Student–PBSI) Observational data further confirmed increased ethical dialogue and cooperative behavior during digitally mediated learning sessions, reinforcing students' self-reported moral growth.

3.3 Conceptual Model of Innovative Learning and Religious Character Formation

Synthesizing the findings from both phases, a conceptual model was developed to represent how innovative learning processes contribute to character formation. This model organizes the relationship among inputs, mechanisms, outputs, and outcomes that collectively shape students' religious character. To address the first research objective and test Hypothesis 1 (H1), this analysis moves beyond identifying statistical relationships to explain how innovative Islamic Religious Education practices translate into students' religious character formation. While quantitative results established the strength and significance of this relationship, the qualitative findings clarify the underlying process mechanisms through which innovation produces moral and spiritual outcomes. To synthesize the causal pathway identified in both strands, Table 3 delineates the staged process through which innovation translates into religious character outcomes.

Table 3: Process Mechanism of Innovative Learning in Shaping Students' Religious Character

Stage	Mechanism	Impact on Students
Integration of Values	Embedding spiritual and ethical values in projects, reflections, and discussions	Deepened moral reasoning and value internalization
Lecturer Facilitation	Guiding reflective and collaborative learning through technology	Enhanced autonomy and responsibility
Digital Interaction	Using LMS and online forums to connect knowledge with practice	Dynamic, experiential engagement with religious principles
Challenge Management	Adapting to limitations in technology and pedagogy	Strengthened resilience and adaptability

Table 3 illustrates that the interaction between pedagogical design, lecturer facilitation, and reflective activities produces meaningful moral and behavioral change, even under resource constraints. To clarify the enabling conditions for these processes, Table 4 summarizes the initial input components supporting value-based innovative learning.

Table 4.: Initial Components (Inputs) Underpinning Value-Based Innovative Learning

Input Aspect	Key Description	Source of Evidence
Islamic Values and Spirituality	Core values such as honesty, empathy, responsibility, religiosity	Thematic analyses on value integration
Faculty Competencies and Roles	Facilitators of reflection and catalysts for critical thinking	Interview accounts and observations
Innovation Readiness and Infrastructure	Digital facilities, technological capabilities, methodological readiness	Reported constraints and affordances
Innovative Learning Models	Project-based, flipped, blended, and reflective learning	Documented course practices

Table 4 demonstrates that institutional readiness and lecturer competencies are the primary enablers of value-based innovation, ensuring that digital pedagogy remains spiritually grounded. To capture near-term pedagogical benefits, Table 5 presents the short-term output observed immediately after implementation.

Table 5: Short-Term Outputs Observed After the Learning Process

Output Dimension	Observable Indicators
Spiritual Understanding	Contextual comprehension of spiritual values in coursework
Cognitive–Reflective Skills	Strengthened reflection, critical thinking, and collaboration
Motivation	Increased motivation grounded in religion-oriented learning

As shown in Table 5, students developed stronger cognitive and reflective skills while also deepening spiritual comprehension, highlighting the effectiveness of innovation in stimulating meaningful engagement. To consolidate the long-term effects, Table 6 presents the final outcomes associated with innovation-oriented IRE.

Table 6: Outcomes (Final Impact) of Innovation-Oriented IRE

Impact Domain	Outcome Indicators
Student Religiosity	Heightened awareness of worship, morals, and spirituality
Knowledge–Practice Integration	Transfer from religious knowledge to religious practice
Autonomy and Responsibility	Academic and spiritual responsibility, self-directed learning
Technology-Infused Culture	Sustained engagement in innovation aligned with Islamic values

The long-term outcomes summarized in Table 6 illustrate that innovative learning leads to lasting transformation in students' moral reasoning, religious conduct, and learning autonomy. This reinforces the potential of innovation as a sustainable approach to character education.

The integrated interpretation of quantitative and qualitative findings offers a cohesive narrative explaining how innovative learning fosters moral development. Quantitative evidence established statistically significant links between understanding innovation and religious character, while qualitative insights illustrated the reflective and experiential mechanisms driving this relationship. Together, the strands demonstrate that when ethical reflection and technological engagement intersect, Islamic education transcends traditional didactic models to cultivate well-rounded, spiritually conscious learners. The source of all tables and figures in this section is the study's mixed-methods dataset collected in 2025.

4. Discussion

This study investigated how innovative learning in Islamic Religious Education (IRE) contributes to the formation of students' religious character in higher education. **In** line with the first and second research objectives, the discussion interprets how innovative pedagogical approaches influence religious character outcomes and explains the mechanisms underlying these effects. By integrating quantitative and qualitative analyses, the research explored the pedagogical mechanisms through which technology-based, reflective, and project-oriented learning approaches influence students' moral and spiritual growth in non-Islamic education programs. The results provide empirical support for the thesis that pedagogical innovation serves not only as a method of instructional modernization but as a spiritual transformation process aligned with the objectives of Islamic education.

Traditional Islamic Religious Education, often dominated by lecture and rote memorization, remains inadequate in fostering students' religious character in the digital era. From a constructivist perspective, such transmissive approaches restrict active meaning-making and moral negotiation, which are essential for value internalization. This study addresses this problem by empirically assessing whether innovative learning, guided by constructivist and Islamic character education theories, can effectively strengthen students' religious character and by identifying the mechanisms that underpin this transformation.

The study utilized a mixed-methods explanatory sequential design to capture both numerical relationships and contextual insights. This design enabled the study to first establish statistically significant patterns and subsequently explain why these patterns occurred through qualitative interpretation. Triangulation of multiple data sources, peer debriefing, and member checking ensured reliability and validity (Creswell & Clark, 2017). Thereby strengthening the interpretive rigor of the findings.

Quantitative analysis revealed a significant positive correlation ($r = 0.61$, $p < .01$) between understanding of innovative learning and students' religious character, with regression results showing that 28% of the variance in religious character could be explained by innovative learning variables ($R^2 = 0.28$). These findings empirically support constructivist theory, which posits that deeper understanding of learning processes enhances value construction and moral

agency. The significant difference in reflective moral reasoning among PBSI students can be theoretically explained by the reflective and interpretive orientation of humanities disciplines, which aligns with moral reasoning development.

The present findings align with a growing body of research across Islamic education and interdisciplinary moral pedagogy. Unlike prior studies that examined spirituality as an individual trait (Mohd Yusoff et al., 2022), this study demonstrates how pedagogical design functions as an institutional mechanism shaping moral development. Similarly, Amirudin et al. (2025) confirmed that Problem-Based Learning (PBL) enhances comprehension of religious concepts and critical thinking, echoing this study's demonstration that reflective pedagogies promote deeper moral reasoning, while the present study extends this work by empirically linking reflective pedagogy to measurable religious character outcomes. Subiyantoro et al. (2025) further showed that integrating Islamic and humanistic values mitigates moral degradation, leading to holistic character formation.

In cross-disciplinary contexts, Kim et al. (2023) and Lih et al. (2024) reported that variations in students' spiritual engagement across academic fields influence affective and moral development. The present findings advance this literature by demonstrating that innovative learning can mitigate disciplinary disparities when reflective scaffolding is intentionally embedded by lecturers. This corroborates the current finding that PBSI students, immersed in text-based curricula, display stronger moral reflection than their PBI counterparts. Studies on teacher competence also emphasize the role of pedagogical content knowledge (PCK) in enhancing moral and spiritual growth (Yusoff et al., 2025), consistent with this study's identification of lecturers as facilitators of moral awareness. The emphasis on teacher modeling aligns with Usman et al. (2025), who describe lecturers as moral mentors guiding ethical conduct through digital and in-person learning.

Recent scholarship on technology-mediated Islamic education provides additional parallels. Zakiyyah et al. (2024), Azizah et al. (2024) and Tanti et al. (Anwar et al., 2025) demonstrated that integrating LMS tools and multimedia content improves moral outcomes when combined with ethical mentoring. Similarly, Latjompoh et al. (2025), Nurhayati et al. (2025) and Wulan et al. (2021) found that embedding Islamic principles in STEM education enhances moral sensitivity and critical reflection. These convergences highlight that technology, when ethically contextualized, supports moral internalization rather than undermining it. Thus, the present research advances the field by empirically validating the effectiveness of innovation-driven, constructivist learning in shaping religious character across non-Islamic academic disciplines.

The convergence of statistical and thematic findings reveals a multidimensional process of character formation. Lecturers functioned as moral mediators who translated digital activities into ethical reflection, confirming Islamic character education theory that moral modeling is central to value internalization. The significant positive relationship between innovative learning and religious

character underscores the constructivist tenet that knowledge and values are co-constructed through interaction, reflection, and application (Ataie & Shah, 2018; Usman et al., 2025). The finding that reflection mediates moral development supports the theoretical sequence of value transformation, transaction, and transinternalization proposed by Firmansyah et al. (2025), where repeated engagement with moral dilemmas in learning activities fosters stable virtue acquisition. The lecturer's facilitative role emerged as the pivotal bridge between digital innovation and spiritual formation.

As moral exemplars, lecturers contextualize religious principles within digital tasks, transforming technology from a neutral medium into an ethical instrument (Anwar et al., 2025; Wedi et al., 2025). This aligns with research demonstrating that teacher mentorship and reflective dialogue cultivate moral discipline and self-efficacy (Purwanto et al., 2023). Additionally, the findings confirm that effective innovation depends on institutional readiness, including infrastructure, training, and policy alignment—factors emphasized in studies by Siregar et al. (2025) and Achruh et al. (2024).

The moderate difference between PBSI and PBI students on reflective indicators reinforces the influence of disciplinary context. Humanities programs, often rich in narrative and interpretive practice, inherently stimulate moral reasoning and empathy, while language-based programs may require more deliberate scaffolding for ethical reflection. These findings echo Jagger (2011) and Kim et al. (2023), who found that disciplinary culture mediates moral development trajectories. Yet the near-uniform high scores across both groups suggest that innovative learning transcends disciplinary boundaries when grounded in Islamic ethics and active participation.

From a broader pedagogical standpoint, the study substantiates the proposition that technology-enhanced, reflective learning not only supports cognitive achievement but also deepens moral consciousness. These finding challenges deterministic critiques of educational technology by demonstrating that moral outcomes depend on pedagogical intentionality rather than technological presence alone. This mirrors findings from Amirudin et al. (2025) and Marzuki et al. (2025), which show that augmented reality and multimedia tools amplify spiritual engagement when framed within Qur'anic narratives. Similarly, Suhartini et al. (2025) observed that students internalize virtues like optimism, honesty, and devotion through digitally mediated reflection guided by teacher mentorship. The present study, therefore, situates innovation as a transformative pedagogical ecosystem that harmonizes intellectual rigor with spiritual intentionality.

Lecturers should integrate reflective, inquiry-driven models such as PBL and project-based learning that link Islamic teachings to contemporary social realities (Amirudin et al., 2025). Professional development programs must emphasize digital competence alongside Islamic pedagogical ethics (Yusoff et al., 2025). Lecturers should design assignments that embed Qur'anic principles and ethical reasoning, leveraging digital media and interactive tools such as AR modules

(Marzuki et al., 2025). Institutions must foster faith-driven cooperative learning cultures that balance character development with academic goals (Usman et al., 2025) and ensure equitable access to digital infrastructure.

The study provides empirical validation of an integrated constructivist–Islamic character model for higher education. Theoretically, it contributes by positioning pedagogical innovation as a mechanism of moral internalization rather than merely instructional efficiency, extending Islamic education theory into digitally mediated contexts. Practically, it demonstrates that reflective mediation, when supported by ethical facilitation, leads to measurable character outcomes. Institutions should strengthen digital governance frameworks and realign assessment systems to reward character-based performance equally with cognitive outcomes(Anwar et al., 2025). Theoretically, these findings affirm that pedagogical innovation acts as a form of spiritualization when embedded in reflective practice. Policy-wise, Islamic Higher Education must prioritize infrastructure investment and ethical oversight to sustain innovation as a moral enterprise.

5. Conclusion

This study examined the role of innovative, technology-based learning in shaping students' religious character within Islamic Religious Education (IRE) in higher education. The findings indicate that reflective, blended, and project-based learning approaches meaningfully enhance students' moral awareness, ethical reasoning, and spiritual sensitivity. Rather than positioning innovation as a risk to Islamic values, the results demonstrate that innovation—when guided by reflection and ethical facilitation—functions as a sustainable mechanism for religious character formation in contemporary higher education. The study contributes theoretically by validating an integrated constructivist–Islamic character education model, in which learning, reflection, and Qur'anic moral values are co-constructed through guided innovation.

Methodologically, the mixed-methods explanatory sequential design proved effective for capturing both measurable outcomes and the moral mechanisms underlying them. Practically, the findings highlight the central role of lecturers as moral facilitators and the importance of institutional readiness, including digital infrastructure and ethics-oriented professional development. Several limitations should be noted, including the single-institution context and cross-sectional design, which limit generalizability and long-term inference. Future research should employ longitudinal and cross-institutional designs, examine Qur'an-centered digital pedagogies, and critically explore the opportunities and ethical challenges of artificial intelligence, online networks, and digital culture in Islamic education.

In conclusion, this study emphasizes that innovation in Islamic education is most meaningful when anchored in reflection, ethical intention, and Islamic values. By aligning technology, pedagogy, and faith, higher education can cultivate graduates who are intellectually capable, morally grounded, and prepared to navigate the ethical complexities of the digital age.

6. Conflict of Interest

The authors declare no conflict of interest.

7. Acknowledgments

The authors wish to acknowledge the use of ChatGPT in the writing of this paper. This tool was used to help improve the language and grammar in the paper. The paper remains an accurate representation of the authors' work and intellectual contributions.

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