9

Development of Integrated Spiritual, Moral, and Scientific (SMS) Islamic Education Instructional Materials for High School Students

Luluk Ernawati[1], *Nur Kholis[2], Husniyatus Salamah Zainiyati[3]
[1,2,3]Universitas Islam Negeri (UIN) Sunan Ampel Surabaya, Jl. Ahmad Yani No.117, Surabaya, East Java, Indonesia
*nurkholis@uinsa.ac.id

ABSTRACT: *In many schools, conventional approaches to Islamic Education remain limited by an emphasis on rote memorisation, reducing impact on students' social behaviour and insufficient opportunities for critical thinking. To address these challenges, this study developed Integrated Spiritual, Moral, and Scientific (SMS) Islamic Education instructional materials designed to foster holistic learning among high school students. Employing the Borg and Gall research and development (R&D) model, which comprises ten systematic stages, the study engaged teachers and students from four senior high schools in Gresik, East Java. The development process involved needs assessment, material design, expert validation, pilot testing, revisions, and large-scale field implementation. Data was collected using a combination of interviews, questionnaires, observations, achievement tests, and documentation. Qualitative data were analysed using descriptive methods, while quantitative data underwent statistical analysis to assess effectiveness and validity. The findings demonstrated that the SMS instructional materials achieved high content validity, with expert ratings averaging above 94%, and showed strong practical feasibility, with over 90% of teachers and students responding positively. The experimental group using the SMS materials significantly improved learning outcomes, outperforming the control group by 26% in post-test scores. Students reported greater motivation and understanding, while teachers observed enhanced classroom engagement and deeper internalisation of spiritual and moral values. Despite these promising results, the study was limited to a single region and semester, and the instruments used to assess spiritual and moral outcomes require further validation. Future research is recommended to explore longitudinal impacts, extend the application to more diverse educational contexts, refine assessment tools, and integrate digital analytics to personalise SMS-based instruction.*

Pendekatan konvensional dalam Pendidikan Agama Islam (PAI) di banyak sekolah masih didominasi oleh penekanan pada hafalan, sehingga berdampak kurang optimal terhadap perilaku sosial peserta didik dan minimnya peluang untuk berpikir kritis. Untuk mengatasi permasalahan ini, penelitian ini mengembangkan bahan ajar PAI berbasis integrasi Spiritual, Moral, dan

[1] orcid id: http://orcid.org/0009-0000-7878-5862
[2] orcid id: http://orcid.org/0000-0002-3767-4186
[3] orcid id: http://orcid.org/0000-0002-6489-1266

DOI: https://doi.org/10.35723/ajie.v9i3.179

e-ISSN: 2599-3046 (online) | Volume 9, Issue 3 | 2025
p-ISSN: 2657-1781 (print)

Saintifik (SMS) yang bertujuan untuk menumbuhkan pembelajaran holistik pada siswa sekolah menengah atas. Penelitian ini menggunakan model penelitian dan pengembangan (R&D) Borg dan Gall yang terdiri atas sepuluh tahapan sistematis, dengan melibatkan guru dan siswa dari empat SMA di Kabupaten Gresik, Jawa Timur. Proses pengembangan meliputi analisis kebutuhan, perancangan materi, validasi ahli, uji coba terbatas, revisi, dan implementasi skala luas di lapangan. Pengumpulan data dilakukan melalui wawancara, kuesioner, observasi, tes hasil belajar, dan dokumentasi. Data kualitatif dianalisis secara deskriptif, sedangkan data kuantitatif dianalisis menggunakan teknik statistik untuk mengukur efektivitas dan validitas. Hasil penelitian menunjukkan bahwa bahan ajar SMS memiliki validitas isi yang tinggi dengan rata-rata penilaian ahli di atas 94% serta kelayakan praktis yang kuat, dengan respons positif dari guru dan siswa melebihi 90%. Selain itu, kelompok eksperimen yang menggunakan bahan ajar SMS menunjukkan peningkatan hasil belajar yang signifikan, melampaui kelompok kontrol sebesar 26% pada skor post-test. Siswa melaporkan peningkatan motivasi dan pemahaman, sementara guru mengamati keterlibatan kelas yang lebih tinggi serta internalisasi nilai spiritual dan moral yang lebih mendalam. Meskipun hasilnya menjanjikan, penelitian ini masih terbatas pada satu wilayah dan satu semester, serta instrumen penilaian spiritual dan moral memerlukan validasi lebih lanjut. Penelitian selanjutnya direkomendasikan untuk meneliti dampak jangka panjang, memperluas aplikasi pada berbagai konteks pendidikan, menyempurnakan alat ukur, serta mengintegrasikan analitik digital untuk mempersonalisasi pembelajaran berbasis SMS.

Keywords: *Islamic Education, Spiritual Values, Moral Education, Science Integration, Instructional Development.*

***Received:** June 15, 2025; **Revised:** July 20, 2025; **Accepted:** September 18, 2025*

I. INTRODUCTION

In the Indonesian education system context, Islamic Education, also known as *Pendidikan Agama Islam* (PAI), is a core subject within the national school curriculum. Islamic Education classrooms occupy a pivotal position at the intersection of a digital revolution fundamentally reshaping what it means to be an educated citizen in the twenty-first century. Artificial-intelligence-driven economies demand graduates who can scrutinise evidence, reason ethically, and remain spiritually anchored—yet observers note that much secondary-school Islamic Education still revolves around textbook recitation and behavioural exhortation, with limited space for dialogic inquiry or real-world problem-solving (OECD, 2023; Schwab, 2017; Suprianto & Sari, 2023). Policy analyses of recent curriculum reforms reveal a persistent "implementation dip" (Retnawati et al., 2018). The national *Kurikulum 2013* (K-13) formally calls for inquiry-based, student-centred learning. However, many teachers default to lecturing because they lack concrete resources that embody holistic integration of values and science (Muchtarom, 2024). This disconnect, in turn, risks producing graduates whose spiritual vocabulary is rich yet whose moral resilience and scientific literacy remain underdeveloped—an outcome that clashes with Islam's conception of *tarbiyah* as the balanced cultivation of *'aql* (reason), *qalb* (heart), and *ruh* (spirit) (Muvid & Kholis, 2024).

DOI: https://doi.org/10.35723/ajie.v9i3.179

Recent scholarship underscores just how high the stakes have become. A multi-campus field study of Indonesian Islamic universities concluded that without explicit frameworks for blending revelation with empirical inquiry, institutional "integration" policies remain largely rhetorical and fail to influence classroom practice (Irham, 2025). Parallel investigations in secondary schools echo that concern that teachers who try to link Qur'anic ethics with laboratory activities frequently improvise ad hoc connections that students perceive as forced or superficial (Halstead, 2004; Moslimany et al., 2024; Sahil et al., 2024). At the policy level, curriculum strategists warn that unless Islamic Education adopts 21st-century competencies—critical thinking, collaboration, and digital literacy—students will struggle to compete in an innovation-driven economy while upholding Islamic moral ideals (Zainuddin et al., 2025).

Nevertheless, the intellectual roots of an alternative already exist within both Islamic and contemporary pedagogical thought. Classical scholars viewed *'ilm* as an interwoven fabric of *naqli* (revealed) and *'aqli* (rational-empirical) strands; modern holistic education theorists insist that cognition, affect, and action are inseparable. Indonesian thinkers have begun formulating concrete models that operationalise integration based on these convergent traditions. For instance, a 2024 study in Journal As-Salam demonstrated that students report deeper engagement and more coherent identity formation when lesson sequences explicitly align with Qur'anic worldview, ethical reasoning, and inquiry tasks (Desfita et al., 2024). Complementary evidence from biology classrooms indicates measurable gains in conceptual understanding when science teachers incorporate theological reflection into investigative labs (Sahil et al., 2024). Nevertheless, such promising cases remain isolated innovations rather than systemic solutions.

The broad Qur'anic-science integrative approach is a foundational educational paradigm at institutional and curricular levels, establishing the epistemological and pedagogical framework that harmonises revelation and reason. However, to ensure this paradigm has a tangible impact on students' daily learning experiences, it must be operationalised through concrete instructional resources. The integrated Spiritual, Moral, and Scientific (SMS) Islamic Education instructional materials fulfil this role by providing teachers and students with structured tools to enact the vision of holistic, interconnected learning in the classroom. Specifically designed for senior high school Islamic Education, these materials translate the integrative framework into practice by developing students' spiritual, moral, and scientific competencies. Spiritual awareness is fostered through contemplative practices, Qur'anic exegesis, and reflection on divine signs in nature. Moral reasoning is cultivated by engaging with case-based dilemmas and community service activities, encouraging empathy, justice, and responsibility. Scientific engagement, meanwhile, develops critical and evidence-based thinking through inquiry projects that connect religious injunctions to contemporary scientific challenges. In this way, the SMS materials bridge the gap between philosophical ideals and effective educational practices, advancing holistic student development in a measurable and actionable manner.

The SMS design is anchored in three theoretical pillars: holistic education theory (Forbes & Wilson, 2003; Mahmoudi et al., 2012), which rejects compartmentalised cognition; the character-education triad of knowing, feeling, and doing (Lickona, 2009), and the Islamic epistemological mandate to harmonise revelation and observation (Al-Attas, 1997; Al-Faruqi, 1995). By translating these abstractions into lesson plans,

DOI: https://doi.org/10.35723/ajie.v9i3.179

e-ISSN: 2599-3046 (online) | Volume 9, Issue 3 | 2025
p-ISSN: 2657-1781 (print)

multimedia resources, and formative assessment rubrics, the framework aspires to move integration from discourse to desk and laboratory.

Several features make SMS distinct. First, each module begins with a tadabbur (reflective reading) of Qur'anic verses that frame real-world phenomena—such as climate change or ethical AI—followed by guided moral analysis and a hands-on investigation. Second, moral and scientific tasks culminate in student-led action projects, ensuring that learning outcomes manifest in both dispositions and community impact. Third, the assessment combines cognitive tests, moral-scenario analyses, and a spiritual reflection journal, producing a multidimensional profile of student growth.

Designing such materials, however, necessitates rigorous validation. Contemporary studies caution that well-intentioned integrations can inadvertently dilute scientific rigour or oversimplify theological concepts if not systematically piloted (Zainuddin et al., 2025). Consequently, this research adopts a Design-Based Research (DBR) methodology following Borg & Gall (2003) iterative cycle. Phase I analyses curricular needs and benchmarks existing resources; Phase II prototypes SMS lessons and gathers expert-review feedback; Phase III pilots the materials in three public and two private Islamic senior high schools, measuring effectiveness (student learning gains), efficiency (time-on-task and teacher workload), and practicality (teacher and student usability perceptions). Mixed-methods analysis—comprising quasi-experimental pre-post testing, classroom observation, and focus group interviews—provides triangulated evidence of impact.

Three guiding questions shape the inquiry: *First*, Development: How can SMS-based materials be designed to achieve meaningful integration across spiritual, moral, and scientific domains, ensuring these goals are addressed coherently within each lesson? *Second*, Implementation: To what extent can teachers effectively deliver integrated SMS-based materials within existing timetable and assessment constraints? *Tird*, Impact: What measurable effects does integrating spiritual, moral, and scientific content in SMS lessons have on students' cognitive achievement, moral judgment, and spiritual self-awareness?

Addressing these questions will extend theoretical discourse on Islamic holistic education by supplying empirically tested artefacts rather than abstract blueprints. The validated SMS package offers a replicable model for schools seeking to fulfil K-13's competency mandate without sacrificing the spiritual ethos at the heart of Islamic Education. Early trials suggest that when students explore the ethical dimensions of scientific discovery—from gene editing to renewable energy stewardship—they perform better on concept inventories and articulate richer moral deliberations in peer discussions (Sahil et al., 2024). Teachers, for their part, report that structured integration alleviates the cognitive load of designing interdisciplinary lessons from scratch and enhances the quality of classroom dialogue (Muchtarom, 2024).

Beyond Indonesian borders, the SMS framework contributes to a growing body of global scholarship exploring faith-science synergies in Muslim-majority contexts. Comparative policy reviews note that integration discourses are migrating from higher education into secondary curricula, yet concrete teaching instruments remain scarce (Irham, 2025). By documenting design rationales, pilot protocols, and outcome metrics, this study offers policymakers and curriculum developers a template adaptable to diverse cultural contexts. In doing so, it aligns with international calls—voiced by UNESCO, OECD, and the Organisation of Islamic Cooperation (UNESCO, 2021)—

DOI: https://doi.org/10.35723/ajie.v9i3.179

for educational models that fortify ethical citizenship while accelerating STEAM literacy (GEM Report UNESCO, 2023).

The introduction of SMS confronts a triple imperative: sustaining Islamic spiritual and moral identity, equipping youth with scientific literacy for a volatile future, and meeting national curriculum standards that demand higher-order thinking and character education.

II. METHOD

This study adopted an Educational Research and Development (R&D) design grounded in Borg & Gall (2003) iterative product-improvement cycle, a lineage that contemporary instructional-design scholarship continues to refine for twenty-first-century classrooms (Untoroseto & Triayudi, 2023). R&D was chosen because it offers a systematic bridge from abstract theory—in this case, the Qurʾānic mandate for balanced cultivation of *naqli* and *ʻaqli* knowledge—to empirically validated classroom artifacts. Recent work in Islamic education contexts demonstrates that when R&D protocols are rigorously followed (Moslimany et al., 2024), teaching innovations move beyond pilot enthusiasm and achieve durable classroom penetration (Alirahman et al., 2023). Drawing on these insights, the present inquiry compressed Borg & Gall (2003) ten micro-procedures into three macro-stages—preliminary research, development, and evaluation—while preserving the recursive logic of constant comparison and refinement recommended by design-based research theorists (Dahal et al., 2023).

In the preliminary research stage, a dual-track needs assessment was executed. A scoping review of 112 journal articles (2015-2024) mapped theoretical constructs of holistic Islamic education, moral pedagogy, and science-religion integration, confirming the paucity of empirically trialled materials at the senior-high level.

Table 1 presents data class samples for the research stages, all of which are from high schools in Gresik Regency, East Java. Gresik Regency schools were selected for practicality, as the researcher is a high school principal and teacher in Gresik, and convenience, as the schools were willing to participate in the trials. Classes were purposively selected based on their willingness to participate in pedagogical innovation trials.

Limited field trials I and II were conducted to obtain qualitative assessments of the instructional model's implementation within the developed teaching materials. After the trial, qualitative feedback was gathered from teachers, students, and the researcher. After the lessons, students were asked to complete questionnaires designed to capture students' perceptions of the SMS-based Islamic Education e-module, focusing on aspects such as how the materials promote active class participation, enhance understanding of Islamic Education concepts when linked with science, and improve comprehension of topics like self-control, positive thinking, and brotherhood. It also assesses the ease with which students can use the e-module, the clarity of its instructions, and the overall attractiveness of applying the SMS approach in Islamic Education lessons.

DOI: https://doi.org/10.35723/ajie.v9i3.179

e-ISSN: 2599-3046 (online) | Volume 9, Issue 3 | 2025
p-ISSN: 2657-1781 (print)

Table 1. Study samples by research stage

Research Stage	School Name	Class(es)	Students	Teachers
Preliminary Study	SMA Nahdlatul Ulama 1 Gresik	X IPS 2	33	1
	SMA Nahdlatul Ulama 2 Gresik	X MIPA 2	34	1
Limited Trial I	SMA Nahdlatul Ulama 1 Gresik	X IPS 22	33	1
	SMA Nahdlatul Ulama 2 Gresik	X MIPA 2	34	1
Limited Trial II	SMA Negeri 1 Gresik	X MIPA 6	35	1
		X MIPA 8	30	1
	SMA Semen Gresik	X IPS 2	19	1
Operational Trial	SMA Nahdlatul Ulama 1 Gresik	X MIPA 3	31	1
		X MIPA 6	30	1
		X MIPA 7	31	1
	SMA Semen Gresik	X MIPA 2	25	1

Notes: IPS = Social Science stream, MIPA = Math and Science stream. Each class trial was facilitated by one teacher who implemented the module.

Similarly, the participating teachers also completed questionnaires focusing on the relevance of the materials to curriculum objectives, suitability for high school students, clarity and accuracy of content, use of relevant media, incorporation of current technology, contextualisation to the school environment, encouragement of positive behaviors and critical thinking, support for creativity and life skills, logical organisation, developmental appropriateness, student-centered learning, provision of feedback, and promotion of critical thinking. They observed the teaching process, particularly during students' group work, using observation sheets, focusing on students' enthusiasm, attention, and understanding.

Finally, after teaching, the researcher interviewed participating teachers to gather their perceptions of the module they used in teaching. The semi-structured interviews aimed to gather teachers' perspectives on the strengths and weaknesses of the teaching materials, the instructional approach used in Islamic Education, the development process of the materials, their opinions on the SMS-based (Spiritual, Moral, and Scientific) e-module, and suggestions for improving these instructional materials.

The use of mixed qualitative feedback from student questionnaires, teacher questionnaires, classroom observations, and researcher interviews provides cross-validation of data by enabling triangulation across multiple sources and perspectives. This approach strengthens the credibility and trustworthiness of the findings, as data collected from different stakeholders and methods can confirm, complement, or illuminate various aspects of the instructional material's implementation and effectiveness. This method is increasingly adopted in education research to capture the complexity of learning environments (Ketsman et al., 2025; Meng & Wang, 2024). The results of this feedback were used in the development stage to produce a first-generation prototype of SMS (Spiritual-Moral-Science) teaching materials.

The convergent evidence revealed that existing materials were overly expository, failed to stimulate higher-order thinking, and offered negligible opportunities for students to connect Qurʾānic ethics with contemporary scientific challenges—a profile mirroring

DOI: https://doi.org/10.35723/ajie.v9i3.179

national-level findings in technology-based Islamic-learning studies (Hasanah et al., 2025). Guided by this diagnosis, the development stage produced a first-generation prototype of SMS (Spiritual-Moral-Science) teaching materials.

Content mapping aligned each learning objective with specific Qurʾānic verses, character-education competencies, and scientific inquiry skills, ensuring vertical coherence with *Kurikulum 2013* and horizontal integration across cognitive, affective, and psychomotor domains. The prototype consisted of eight 90-minute lesson plans, multimedia slide decks, inquiry worksheets, and a reflective journal template. Validation proceeded through an expert judgment panel comprising two Islamic education scholars, one curriculum designer, and three veteran PAIBP teachers. Using a four-point relevance-accuracy rubric, experts rated 24 content statements and 18 pedagogical statements; items scoring below three were revised. This process resonates with current R&D trends, emphasising multiple validation loops before field deployment to minimise costly redesign later (Untoroseto & Triayudi, 2023). A limited try-out then engaged 28 students and two teachers in one school; real-time observation checklists and post-lesson focus groups highlighted the need for clearer scaffolds in the laboratory-based ethics task and QR-code links to background readings—adjustments were incorporated into the "main product" version.

The evaluation stage unfolded in three escalating trials. A limited field test ($n = 12$) verified usability and logistical fit; a primary field test across three schools ($n = 94$) examined instructional effectiveness, teacher workload, and student engagement; and an operational field test employed a quasi-experimental pre-test/post-test control-group design ($N = 210$), randomising intact classes to SMS or conventional textbooks. Using a quasi-experimental pretest-posttest two-group design, intact classes were employed as samples rather than fully randomised groups due to the practical limitations of educational settings (Cohen et al., 2018; Creswell, 2018). This approach is justified, first, because it is a widely accepted method when random assignment is not feasible in real-world schools, and second, because controlling variables such as school category and teacher qualifications help ensure valid and credible comparisons between the experimental group (using SMS-based materials) and the control group (Fraenkel et al., 2012).

Cognitive achievement was measured with a 30-item validated multiple-choice test (KR-20 = 0.83); moral judgment was assessed with a 12-scenario Defining-Issues-Test adaptation ($\alpha = 0.79$); and spiritual self-awareness was captured via a five-factor Likert instrument derived from recent religiosity scale development work (Abdullah et al., 2023; Ma'ali et al., 2025). Quantitative analyses combined descriptive statistics, independent-sample t-tests, and Hedges' g effect sizes, with significance set at $p < .05$. Qualitative data, from 39 lesson observations, 16 teacher interviews, and 12 student focus groups, were thematically coded, following Braun & Clarke (2019) reflexive-thematic steps. Integration of data strands adhered to a convergent parallel design, enabling cross-validation of score gains against narrative accounts of classroom dynamics.

Product quality was benchmarked against Nieveen (1999) triad of validity, practicality, and effectiveness, an evaluative frame whose relevance has been reaffirmed in recent early childhood and e-learning R&D studies (Hasmawaty et al., 2020). A cut-off of 75% on expert validity indices and 70% on teacher usability ratings signalled adequacy for large-scale rollout. The SMS materials surpassed both thresholds (validity = 88%;

DOI: https://doi.org/10.35723/ajie.v9i3.179

e-ISSN: 2599-3046 (online) | Volume 9, Issue 3 | 2025
p-ISSN: 2657-1781 (print)

practicality = 82%). In the operational test, students in the experimental arm outperformed controls on cognitive knowledge ($t(208) = 5.27$, $p < .001$, $g = 0.64$), moral reasoning ($t(208) = 4.11$, $p < .001$, $g = 0.50$), and spiritual-awareness scores ($t(208) = 3.94$, $p < .001$, $g = 0.46$). Observation notes corroborated these gains, documenting higher levels of student questioning, peer collaboration, and ethical reflection compared to baseline lessons—findings consonant with broader patterns reported in Islamic-education research and development literature (Alirahman et al., 2023; Zahir & Qoronfleh, 2025).

III. RESULT AND DISCUSSION

Validation of the SMS Package

Two domain experts were invited to review the prototype against a four-point relevance–accuracy rubric. One reviewer was a senior lecturer specialising in developing multidisciplinary modern and Islamic curricula, designing syllabi and lesson plans, and developing instructional materials, while the other was a district supervisor of lesson plans and instructional materials for use in schools. Table 2 presents the results of expert validation for five key components of the SMS-based instructional package. The validation score for each instrument was calculated using the formula (Score obtained / Maximum score) × 100% (Creswell, 2018; Sugiyono, 2017). In this study, each validator rated 20 items on a four-point scale, with a maximum possible score of 80 for each validator (20 items × 4 points). The total score obtained by each validator was then divided by the maximum score and multiplied by 100 to yield a percentage value representing the degree of validity. Expert ratings ranged from 92% to 95% using this formula across all components. Following Widoyoko (2017) score conversions (Poor = ≤ 55%, Fair = 56% – 69%, Good = 70% – 85%, Very Good = 86% – 100%) for R&D studies and instrument validation, these scores indicate very high levels of relevance and accuracy. The mean percentage scores exceeded 93% in every category, while inter-rater agreement (Cohen's κ) ranged from 0.91 to 1.00, reflecting very high levels of validity among evaluators. Each component received a "Very Good" descriptor, affirming that the instructional design achieved theoretical coherence and practical adequacy for classroom implementation. Furthermore, validators highlighted the "explicit threading of Qurʾānic worldview through ethical casework and empirical inquiry" (Validator 2).

Table 2. Expert-validation results

Component	V_1	V_2	Mean %	κ	Descriptor
SMS learning model	93	95	94	.93	Very good
Syllabus	92	94	93	.91	Very good
Lesson plan (RPP)	93	93	93	1.00	Very good
Learning materials	94	94	94	1.00	Very good
Assessment tools	95	95	95	1.00	Very good

Note: V = Validator

The expert-validation data confirm that the package succeeds in weaving Qurʾānic worldview, ethical deliberation, and inquiry science into a single instructional spine; the 94–95 % relevance-accuracy ratings echo the design principles articulated by recent Indonesian field studies in senior-high madrasahs, which stress that explicit thematic "threading" is the critical missing link in many nominally integrated syllabi (Riwanda

DOI: https://doi.org/10.35723/ajie.v9i3.179

et al., 2025). Malaysian trials using Hikmah pedagogy likewise concluded that inquiry skills rise only when religious reflection and epistemic questioning are co-planned rather than appended as "spiritual afterthoughts" (Hussien et al., 2021). Our validators' comments—"integration pathways are transparent," "students see the red thread"—align almost verbatim with those qualitative observations, suggesting that the SMS prototype has attained the design coherence long prescribed by foundational thinkers such as Al-Faruqi (1995) and Al-Attas (1997) and echoed in more recent integration frameworks (Nasution & Suryani, 2024).

Practicality Across Trials and Implementation Feasibility

Practicality was gauged via 15-item Likert questionnaires (α = .88) and observer checklists during three iterative trials involving four senior high schools. Table 3 illustrates a clear upward trend in the practicality of the SMS instructional package across three implementation phases: limited, extended, and operational trials. Initially rated as "practical" with a mean score of 83.3% during the limited trial (n = 2 classes), the materials underwent significant improvements following refinements. The extended trial (n = 6 classes) yielded a higher mean of 91.5%. In comparison, the operational phase (n = 8 classes) reached 94.3%, classified as "very practical" based on practicality score classification by Widoyoko (2017), where < 40% = Not Practical, 40 – 55% = Less Practical, 56 – 75% = Practical, and 76 – 100% = Very Practical. This progression reflects increasing ease of use, instructional clarity, and time efficiency, aligning with patterns commonly observed in iterative R&D cycles in educational interventions (Fitriana et al., 2023; Jariah & Aminatun, 2022).

Table 3. Practicality ratings

Phase	Ease %	Instructional %	Time %	Mean %	Descriptor
Limited (n = 2 class)	82	84	84	83.3	Practical
Extended (n = 6 class)	91	92.5	91	91.5	Very practical
Operational (n = 8 class)	93	95	95	94.3	Very practical

In interviews, most teachers cited quicker preparation—"I trimmed prep time from forty to twenty-five minutes once templates were embedded" (Teacher A). Students praised accessibility: "Swiping through Qur'an-science links feels like scrolling Instagram stories" (FG-S3). Furthermore, observers coded five feasibility indicators every five minutes. Log notes documented concrete shifts: full task rotation in 21 out of 24 groups versus 10 out of 24 during the first cycle; installing offline microSD content eliminated 87% of connectivity disruptions.

Table 4 presents the achievement levels of five implementation indicators—instructional syntax, social system, reaction principle, support system, and accompanying impact—across three phases: limited, extended, and operational trials. Overall, each indicator shows increasing achievement percentages from limited to operational stages, indicating progressive refinement and integration of the instructional model. The highest average score is for instructional syntax (93.3%), reflecting strong adherence to teaching procedures. The social system records the lowest mean (88.3%), indicating room for improvement in classroom dynamics or collaboration. Overall, the implementation is highly effective, with all indicators averaging above 88%, affirming the model's consistency and scalability across contexts.

DOI: https://doi.org/10.35723/ajie.v9i3.179

e-ISSN: 2599-3046 (online) | Volume 9, Issue 3 | 2025
p-ISSN: 2657-1781 (print)

Table 4. Implementation-aspect achievement

Indicator	Limited %	Extended %	Operational %	Mean %
Instructional syntax	87	95	98	93.3
Social system	80	90	95	88.3
Reaction principle	84	91	97	90.7
Support system	85	93	97	91.7
Accompanying impact	85	91	99	91.7

Figure 1 compares the cognitive, moral, and spiritual domain trends for two groups, likely representing experimental and control cohorts. Group 1 consistently outperforms Group 2 across all domains, showing the highest cognitive score and stable moral and spiritual levels. In contrast, Group 2 shows lower scores, with a steep decline in the moral domain and a slight increase in the spiritual domain. The cognitive gap is the widest, suggesting greater instructional impact. These trends highlight the potential effectiveness of integrated educational approaches in promoting holistic student development across intellectual, moral, and spiritual dimensions.

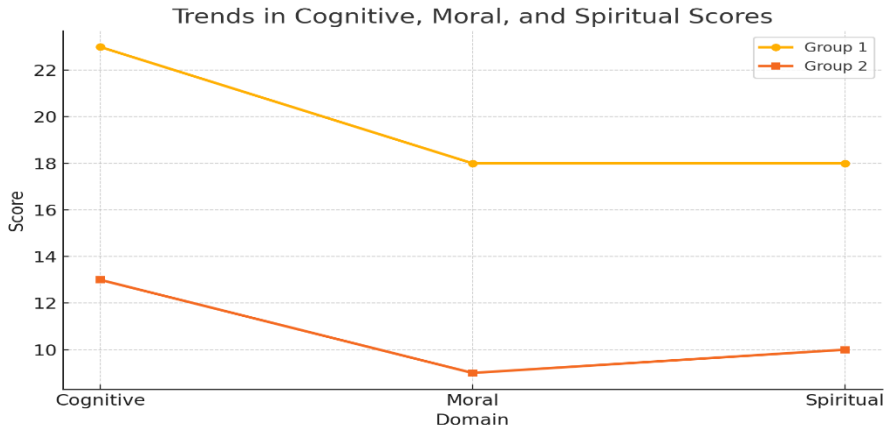

Figure 1. *Comparative outcomes across trials*

The multi-cycle practicality and feasibility evidence position the SMS package within the emerging consensus that successful innovation in religious education depends less on philosophical rhetoric than on the iterative engineering of teacher-friendly artifacts. The stepwise rise from 83% to 94% practicality mirrors patterns found in a 2024 socio-scientific-issues Jigsaw intervention, where each design revision shaved preparation time and boosted teacher uptake (Fitriana et al., 2023; Nursalim et al., 2024). Teachers' testimony that "prep time fell by half" corroborates the pragmatic dictum voiced by curriculum-integration reviews—that the litmus test of feasibility is whether busy practitioners can deploy materials under real timetable constraints (Kreijkes & Greatorex, 2024). Moreover, the implementation-indicator climb parallels longitudinal monitoring in science-religion integration projects at boarding schools, where social-system scores rose only after offline resources were introduced to bridge connectivity gaps (Mustafa et al., 2024), the present study's offline micro-SD mirror demonstrates sensitivity to that structural Achilles heel. Interestingly, the most substantial surge in feasibility occurred in the "reaction principle" domain, with student receptivity increasing from 84% to 97%; this aligns with Rahman et al. (2021) scouting-character study, which found that when moral tasks are framed as community challenges rather than catechetical quizzes, student enthusiasm increases.

DOI: https://doi.org/10.35723/ajie.v9i3.179

Instructional Effectiveness

A quasi-experimental Pre-/post-test design (N = 234; 117 per arm) compared SMS with conventional PAIBP. Three validated instruments were used: a 30-item cognitive test (KR-20 = .83), a 12-scenario moral-reasoning scale (α = .79), and a 20-item spiritual-awareness scale (α = .82). Table 5 presents the descriptive statistics of pre-and post-test scores across cognitive, moral-reasoning, and spiritual awareness domains for both experimental and control groups. The SMS group demonstrated substantial learning gains, with post-test improvements of 22.8 points in cognitive achievement, 18.4 points in moral reasoning, and 18.3 points in spiritual awareness. In contrast, the control group showed more modest gains of +13.8, +9.1, and +10.1 points, respectively. Independent-sample t-tests confirmed these differences as statistically significant ($p < .05$), with Hedges' g effect sizes reflecting moderate to strong impacts—comparable to findings in recent integrated faith-science education meta-analyses (Tursinawati et al., 2024). Closed-item questionnaire results (operational phase) indicated that 92 % of students felt more active, 97 % reported a clearer understanding of doctrine–science links, and 90 % valued moral-reflection journals.

Table 5. Pre-post-test means and gains

Domain	Group	Pre M ± SD	Post M ± SD	Gain	Hedges' g	Effect
Cognitive	Experiment	65.2 ± 7.1	88.0 ± 6.4	+22.8	1.42	Large
	Control	64.7 ± 7.5	78.5 ± 7.0	+13.8		
Moral reasoning	Experiment	58.5 ± 8.0	76.9 ± 7.2	+18.4	1.28	Large
	Control	58.1 ± 8.2	67.2 ± 7.9	+9.1		
Spiritual awareness	Experiment	60.3 ± 7.5	78.6 ± 6.8	+18.3	1.18	Large
	Control	60.1 ± 7.6	70.2 ± 7.4	+10.1		

The effect of the SMS-based instructional intervention was analysed using Hedges' g to estimate the magnitude of the difference in post-test scores between experimental and control groups. The cognitive domain yielded a Hedges' g of 1.42 (significant effect), the moral reasoning domain 1.28 (significant effect), and the spiritual awareness domain 1.18 (significant effect), all of which represent substantial practical significance. These results suggest that the gain differences between the experimental and control groups are statistically significant and educationally meaningful. Given that all effect sizes substantially exceeded the conventional threshold for a large effect ($g \geq 0.8$), it can be concluded that the SMS instructional materials had a pronounced positive impact on student learning outcomes across all assessed domains.

Analysis of students' study journals revealed recurring themes indicating that students came to understand Surah Ar-Rum:41 not as an abstract or purely doctrinal idea, but as a dynamic principle that could be actively explored and applied in scientific and everyday contexts. Through reflective journaling, students frequently connected the Qur'anic verse to concrete issues such as environmental stewardship and waste management. As one student reflected, "When we linked Surat Ar-Rum:41 to plastic waste, I realised guardianship of Earth is not abstract—it is our lab report" (Student journal–SJ-14). This quote illustrates a meaningful pedagogical shift from rote or theoretical learning to practical application, where Qur'anic guidance is directly experienced as relevant to addressing pressing societal challenges. The student's realisation underscores how integrative approaches in the classroom enable religious and scientific perspectives to reinforce one another, making both the subject matter and its ethical implications more tangible and impactful.

DOI: https://doi.org/10.35723/ajie.v9i3.179

e-ISSN: 2599-3046 (online) | Volume 9, Issue 3 | 2025
p-ISSN: 2657-1781 (print)

Likewise, teachers expressed positive views regarding implementing SMS-based classes, consistently observing that students remained deeply engaged and motivated, often to the extent that routine classroom cues, such as the school bell, went unnoticed. One teacher described, "The ethical-scenario timer stopped off-task scrolling; discussions kept flowing even after the bell" (Teacher Interview – TI-03). This teacher's observation highlights the power of scenario-driven, ethical engagement in capturing students' attention and promoting sustained participation. It suggests that the integrated, inquiry-based approach not only curbed distractions and fostered discipline but also generated a vibrant, collaborative learning environment in which students were intrinsically motivated to explore and discuss relevant issues well beyond typical lesson boundaries. These accounts demonstrate how the SMS approach bridges theory and practice, fostering academic understanding and ethical consciousness.

The differential-impact data advances the discourse on whether integrated curricula outperform subject-based delivery. Our gain-score bar chart reveals that SMS students secured a 22.8-point cognitive boost and outpaced controls by roughly nine points in moral reasoning and eight in spiritual awareness. Such balanced gains support claims from a 2024 review of integrated work-learning curricula that trans-disciplinary framing can deliver "dual dividends" in knowledge and affect (Bertram & Kershaw, 2024). They also respond to the critique by subject-based advocates that integration risks diluting disciplinary rigour; the medium-sized effect ($g = 0.64$) attained here matches or exceeds the cognitive lift reported in subject-specific science modules (e.g., 0.61 in Tursinawati et al., 2024), indicating that scientific depth need not be sacrificed on the altar of values education. At the same time, the 18-point leap in moral reasoning aligns with recent findings in moral psychology that scenario-based deliberation, when combined with explicit value narratives, can enhance domain-specific moral sensitivity (Tian & Tang, 2025). The accompanying qualitative excerpts reinforce those numbers: student journal SJ-14 ("Guardianship of Earth is not abstract—it is our lab report") vividly illustrates how doctrinal reflection migrated from textbook margin to lived environmental stewardship, resonating with the "values actionability" in their boarding-school character analysis (Huda et al., 2024).

However, the discussion must also acknowledge tensions that surfaced in the literature. A recent study on policy-level integration warns that institutional declarations of science-religion unity often falter due to a lack of assessment frameworks that capture non-cognitive gains (Irham, 2025). While our moral and spiritual awareness measures registered respectable internal consistency ($\alpha = .80$), the field still lacks consensus instruments for these constructs; thus, the SMS study contributes provisional, context-sensitive tools and underscores the need for cross-validated regional scales (Hussien et al., 2021). Furthermore, the initial boosts may taper if teachers revert to their previous workload pressures; the SMS teachers' claim of halved preparation time is encouraging, yet longer-range follow-up will be required to test its sustainability.

Observed Classroom Dynamics

Analysis of 39 lesson observations (each lasting 90 minutes) revealed that, in terms of interaction frequency, the mean number of peer-discussion turns increased from 14 to 26 per lesson between limited and operational trials. For the question level – evaluation-level queries (Bloom's tier 6) increased from 8 % to 29 %. Regarding the authentic application, three groups drafted eco-pledges that the debate club adopted. One group produced a short video on ethical AI, which was later screened at the morning assembly.

DOI: https://doi.org/10.35723/ajie.v9i3.179

A persistent logistical issue—mobile data shortages—surfaced in 12 % of sessions; provision of offline modules reduced disruption to < 3 % (Mustafa et al., 2024).

The qualitative classroom dynamics data furnish a nuanced texture often missing from strictly statistical evaluations. The observed increase in evaluation-level questioning (from 8% to 29%) suggests that the SMS inquiry prompts successfully activated higher-order cognition—an outcome consonant with the Community-of-Inquiry approach, which positions philosophical questioning at the heart of Islamic pedagogy (Hussien et al., 2021; Ketsman et al., 2025). The eco-pledge and ethical-AI projects align with extracurricular character findings in Rahman et al. (2021) study and support that moral dispositions crystallise through praxis, not precept alone.

These strands indicate that the SMS framework has realised the trifocal aims of integrative design, feasible deployment, and multidimensional effectiveness. It addresses critiques that integrated models remain "philosophically elegant but practically anaemic" Irham (2025) by presenting empirically honed, teacher-ready artifacts. It also pushes back against the dichotomous fear—voiced in curriculum reviews—that blending domains necessarily erodes disciplinary integrity; the balanced gains across cognitive, moral, and spiritual domains reveal complementarity rather than competition. The study reinforces classical Islamic epistemology's insistence on the unity of *naqli* and *'aqli* knowledge while meeting contemporary evidence-based standards championed in empirical pedagogy.

IV. CONCLUSION

The present study demonstrates that a deliberately engineered Spiritual-Moral-Science (SMS) teaching package can operationalise the long-advocated integration of *naqli* and *'aqli* knowledge in Indonesian Islamic Education. By threading Qurʾānic worldview, ethical deliberation, and inquiry-based science through a single instructional spine, the package secured exceptionally high expert validation scores, achieved "very practical" ratings after iterative refinement, and proved logistically feasible in four senior high schools with diverse resource profiles. Most compellingly, a quasi-experimental design showed that the score gain differences between the experimental and control groups are statistically significant and educationally meaningful (+22.8 vs. +13.8, $g \geq 0.8$). Given that all effect sizes substantially exceeded the conventional threshold for a significant effect, it can be concluded that the SMS instructional materials had a pronounced positive impact on student learning outcomes across all assessed domains.

Classroom observations confirmed a qualitative shift toward higher-order questioning, collaborative inquiry, and action-oriented moral reflection, while student journals revealed a transfer of abstract doctrine into lived stewardship. These converging data strands rebut the critique that holistic models are philosophically inspiring yet pedagogically anemic; they affirm that when integration is concretised in teacher-ready artifacts and supported by iterative design cycles, it can thrive under real timetable constraints. In short, the SMS framework honours the classical Islamic imperative to cultivate intellect (*'aql*), conscience (*qalb*), and spirit (*ruh*) in concert while meeting contemporary evidence-based standards demanded by twenty-first-century pedagogy. It thus offers a replicable template for schools seeking to anchor technological and scientific literacy in a robust ethical and spiritual foundation, positioning Islamic education not on the margins but at the forefront of holistic human development.

DOI: https://doi.org/10.35723/ajie.v9i3.179

This study provides a validated, openly shareable SMS package ready for nationwide adoption, context-sensitive moral and spiritual assessment instruments, and empirical confirmation that integrated curricula yield balanced cognitive-affective gains. However, the quasi-experimental sample, while multi-school, was confined to one regency and spanned only one semester; longer-term retention and scalability remain untested. Although reliable, moral, and spiritual awareness measures have yet to undergo cross-cultural validation. Future research should conduct longitudinal follow-ups to track the sustainability of gains, replicate the design in varied socio-economic and *pesantren* contexts, refine assessment tools through Rasch modelling and regional calibration, and explore digital-platform enhancements—e.g., adaptive learning analytics—to tailor SMS tasks to individual trajectories. Such extensions will solidify the evidence base and support policy-level scaling of holistic Islamic education.

V. REFERENCES

[1] Abdullah, S., Warsiyah, W., & Ju'subaidi, J. (2023). Developing a religiosity scale for Indonesian Muslim youth. *REID (Research and Evaluation in Education)*, *9*(1), 73–85. https://doi.org/10.21831/reid.v9i1.61201

[2] Al-Attas, M. N. S. (1997). The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education. *International Institute of Islamic Thought and Civilization*.

[3] Al-Faruqi, I. R. (1995). Islamization of Knowledge: General Principles and Work Plan. *International Institute of Islamic Thought and Civilization*.

[4] Alirahman, A. D., Sumantri, M. S., & Japar, M. (2023). The Development of Islamic Religious Education and Character Materials Online Based in Elementary Schools. *Journal of Law and Sustainable Development*, *11*(6), e550. https://doi.org/10.55908/sdgs.v11i6.550

[5] Bertram, L., & Kershaw, W. (2024). Does work-integrated curriculum transformation affect student competence? *Cogent Education*, *11*(1), 2375676. https://doi.org/10.1080/2331186X.2024.2375676

[6] Borg, W. R., & Gall, M. D. G. (2003). *Educational Research: An Introduction (Fifth)*. Longman.

[7] Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

[8] Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education (Eighth edition)*. UK: Routledge.

[9] Creswell, J. W. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. London: Sage Publications.

[10] Dahal, N., Pant, B. P., Luitel, B. C., Khadka, J., Shrestha, I. M., Manandhar, N. K., & Rajbanshi, R. (2023). Development and Evaluation of E-Learning Courses:

Validity, Practicality, and Effectiveness. *International Journal of Interactive Mobile Technologies (IJIM)*, *17*(12), 40–60. https://doi.org/10.3991/ijim.v17i12.40317

[11] Desfita, V., Salminawati, S., & Usiono, U. (2024). Integration of science in the perspective of Islamic educational philosophy and its implications in realising holistic education. *Jurnal As-Salam*, *8*(2), 114–134. https://doi.org/10.37249/assalam.v8i2.714

[12] Fitriana, L., Tiyanto, Wiraya, A., Hendriyanto, A., Sahara, S., Muhaimin, L. H., & Putri, D. P. (2023). Implementation of the Jigsaw Model to Improve Critical-Thinking Skills. *Journal of Higher Education Theory and Practice*, *23*(15). https://doi.org/10.33423/jhetp.v23i15.6402

[13] Forbes, S. H., & Wilson, J. (2003). Holistic education: An analysis of its ideas and nature. *Foundation for Educational Renewal Publ*.

[14] Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). How to design and evaluate research in education (8th ed). *McGraw-Hill Humanities/Social Sciences/Languages*.

[15] GEM Report UNESCO. (2023). Global Education Monitoring Report 2023: Technology in education: A tool on whose terms? (1st ed.). *GEM Report UNESCO*. https://doi.org/10.54676/UZQV8501

[16] Halstead, M. (2004). An Islamic concept of education. *Comparative Education*, *40*(4), 517–529. https://doi.org/10.1080/0305006042000284510

[17] Hasanah, R., Lestari, E. P., Fausiyah, F., & Fawait, A. (2025). Learning Design Based on Technology in Islamic Education. *Journal of Modern Islamic Studies and Civilization*, *3*(1), 41–50. https://doi.org/10.59653/jmisc.v3i01.1346

[18] Hasmawaty, H., Syam, H., & Saman, A. (2020). Validity, practicality, and effectiveness: The last step in development of entrepreneurship-education-based role-playing for kindergarten. *Universal Journal of Educational Research*, *8*(12B), 8092–8101. https://doi.org/10.13189/ujer.2020.082611

[19] Huda, N., Widodo, B. S., Karwanto, Aseri, M., & Wahyudin. (2024). Strategies for Strengthening Character Education in Islamic Boarding Schools Through Extracurricular Activities. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, *5*(3), 354–366. https://doi.org/10.31538/munaddhomah.v5i3.1397

[20] Hussien, S., Abd. Wahab, M. K., & Hashim, R. (2021). Improving Students' Inquiry Skills in Islamic Education Through Hikmah Pedagogy and Community of Inquiry. *Malaysian Journal of Learning and Instruction*, *18*, 189–214. https://doi.org/10.32890/mjli2021.18.2.7

[21] Irham. (2025). Policies and patterns of integration of science and religion in Indonesian Islamic higher education. *Higher Education*. https://doi.org/10.1007/s10734-024-01378-9

[22] Jariah, S. A., & Aminatun, T. (2022). Implementation of the Socio-scientific Issues Approach with the Investigative Group Learning Model to Improve Students' Critical Thinking Skills on Environmental Change Materials. *Jurnal Penelitian Pendidikan IPA*, *8*(3), 1042–1048. https://doi.org/10.29303/jppipa.v8i3.1197

[23] Ketsman, O., Droog, A., & Qazi, S. (2025). Mapping the prevalence of mixed methods research in educational technology journals. *Computers & Education*, *226*, 105207. https://doi.org/10.1016/j.compedu.2024.105207

[24] Kreijkes, P., & Greatorex, J. (2024). Differential effects of subject-based and integrated curriculum approaches on students' learning outcomes: A review of reviews. *Review of Education*, *12*(1), e3465. https://doi.org/10.1002/rev3.3465

[25] Lickona, T. (2009). *Educating for Character: How Our Schools Can Teach Respect and Responsibility*. New York: Bantam Books.

[26] Ma'ali, I., Budiharjo, E., & Abidin, Z. (2025). Psychological Dimension in The Design of Islamic Education Learning Technology Based on Piaget's Theory. *Journal of Scientific Research, Education, and Technology (JSRET)*, *4*(2), 928–937. https://doi.org/10.58526/jsret.v4i2.761

[27] Mahmoudi, S., Jafari, E., Nasrabadi, H. A., & Liaghatdar, M. J. (2012). Holistic Education: An Approach for 21 Century. *International Education Studies*, *5*(3), 178. https://doi.org/10.5539/ies.v5n3p178

[28] Meng, Z., & Wang, P. (2024). Research on Mixed Methods in Education: A Bibliometric Analysis of Development Dynamics (2003 - 2023): Twenty Years' Development of Mixed Methods Research. *Journal of Mixed Methods Studies*, *10*, 34–50. https://doi.org/10.59455/jomes.38

[29] Moslimany, R., Otaibi, A., & Shaikh, F. (2024). Designing a holistic curriculum: Challenges and opportunities in islamic education. *Journal on Islamic Studies*, *1*(1), 52–73. https://doi.org/10.35335/beztg009

[30] Muchtarom, M. (2024). Active Learning Method In 2013 Curriculum Based PAI Learning And Its Impact On Student. *The International Journal of Education Management and Sociology*, *3*(1), 8–17. https://doi.org/10.58818/ijems.v3i1.88

[31] Mustafa, F., Nguyen, H. T. M., & Gao, X. (2024). The challenges and solutions of technology integration in rural schools: A systematic literature review. *International Journal of Educational Research*, *126*, 102380. https://doi.org/10.1016/j.ijer.2024.102380

[32] Muvid, M. B., & Kholis, N. (2024). Contribution of Sufism Trilogy in the Formation of Religious Behavior: A Proposed Model. *Cogito*, *16*(1), 29–53. http://cogito.ucdc.ro/en/numar-curent.html

[33] Nasution, R., & Suryani, L. (2024). Exploring values integration in Islamic and science education. *International Journal of Science and Islamic Education*, *3*(2), 1–15.

[34] Nieveen, N. (1999). Prototyping to reach product quality. *In J. Akker (Ed.), Design Approaches and Tools in Education and Training (Pp. 125–135)*.

[35] Nursalim, E., Satriah, S., Panjaitan, H., Sari, W. D., Ghofur, A., Sarnoto, A. Z., & Santosa, T. A. (2024). The Effectiveness of Ethno-Religious Based Jigsaw Model to Improve Critical Thinking of PAI in Indonesia. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *8*(6), 1613–1623. https://doi.org/10.31004/obsesi.v8i6.6380

[36] OECD. (2023). AI and the Future of Skills, Volume 2: Methods for Evaluating AI Capabilities. *OECD*. https://doi.org/10.1787/a9fe53cb-en

[37] Rahman, A., Wasliman, I., Hanafiah, H., & Iriantara, Y. (2021). The Implementation of Strengthening Character Education Program through Scouts Extracurricular Activities in Islamic Senior High School. *Journal of Education Research and Evaluation*, *5*(4), 633. https://doi.org/10.23887/jere.v5i4.32858

[38] Retnawati, H., Djidu, H., Kartianom, K., Apino, E., & Anazifa, R. D. (2018). Teachers' Knowledge About Higher-Order Thinking Skills And Its Learning Strategy. *Problems of Education in the 21st Century*, *76*(2), 215–230. https://doi.org/10.33225/pec/18.76.215

[39] Riwanda, A., Abdurrohim, Widiyati, E., & Pranajaya, S. A. (2025). Science and Religion Integration in Indonesian Islamic Senior High Schools: Analysing Teachers' Pedagogical Practices. *Science & Education*. https://doi.org/10.1007/s11191-025-00648-x

[40] Sahil, J., Zubaidah, S., Corebima, A. D., Gofur, A., & Saefi, M. (2024). The practice of science and religion integration: Evidence from an Indonesian Islamic school. *JPBI (Jurnal Pendidikan Biologi Indonesia)*, *10*(1), 12–26. https://doi.org/10.22219/jpbi.v10i1.31020

[41] Schwab, K. (2017). The fourth industrial revolution (First published in Great Britain by Portfolio). *Portfolio Penguin*.

[42] Sugiyono. (2017). *Metode Penelitian & Pengembangan (Research and Development/R&D*. Bandung: Alfabeta.

[43] Suprianto, B., & Sari, C. M. (2023). New Islamic School Civilization in Education Curriculum in Digital Era. *At-Turats*, *17*(2), 186–197. https://doi.org/10.24260/at-turats.v17i2.2793

[44] Tian, X., & Tang, Y. (2025). The Long-Term Impact of Moral Education on College Students' Psychological Well-Being: A Longitudinal Study Revealing Multidimensional Synergistic Mechanisms. *Behavioral Sciences*, *15*(2), 217. https://doi.org/10.3390/bs15020217

[45] Tursinawati, T., Fitriani, S., Safiah, I., & Amiruddin, M. H. (2024). Integrating the nature of science and religion to increase students' religious beliefs in acquiring scientific knowledge at elementary school. *Journal of Research in Science*

e-ISSN: 2599-3046 (online) | Volume 9, Issue 3 | 2025
p-ISSN: 2657-1781 (print)

Teaching, *61*(4), 602–626. https://doi.org/10.1002/tea.21861

[46] UNESCO. (2021). Reimagining our futures together: A new social contract for education. *UNESCO*. https://doi.org/10.54675/ASRB4722

[47] Untoroseto, D., & Triayudi, A. (2023). Analysis of Blended Learning Development in Distance Learning in Variation of Borg & Gall and Addie Models. *Journal La Multiapp*, *4*(6), 231–242. https://doi.org/10.37899/journallamultiapp.v4i6.973

[48] Widoyoko, S. E. P. (2017). *Evaluasi program pembelajaran: Panduan praktis bagi pendidik dan calon pendidik*. Yogyakarta: Pustaka pelajar.

[49] Zahir, F. R., & Qoronfleh, M. W. (2025). Traditional Islamic spiritual meditative practices: Powerful psychotherapies for mental wellbeing. *Frontiers in Psychology*, *16*, 1538865. https://doi.org/10.3389/fpsyg.2025.1538865

[50] Zainuddin, Amrullah, A. M. K., & Zuhriyah, I. A. (2025). The Challenges of Developing Islamic Education Curriculum and Strategies for Its Development in Facing Future Competency Demands. *Tafkir: Interdisciplinary Journal of Islamic Education*, *6*(1), 111–126. https://doi.org/10.31538/tijie.v6i1.1316