

Synthesizing *Pesantren* Traditions and Digital Pedagogies: Strategies and Evaluation of Character-Based Islamic Religious Education Innovation in Vocational Schooling

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Abstract: This study investigates the strategies, evaluation mechanisms, and developmental recommendations for character-based Islamic Religious Education (IRE) curriculum innovation at SMK Aswaja Banyuwangi. Employing a descriptive qualitative approach with a single case study design, the research explores how vocational frameworks systematically integrate spiritual traditions with modern educational demands. Data were collected through semi-structured interviews with key informants, field observations, and documentation reviews, followed by thematic analysis and rigorous triangulation to ensure internal validity. Results indicate that curriculum innovation is driven by a comprehensive need analysis aimed at aligning learning with contemporary dynamics while maintaining holistic character building. The implementation utilizes student-centered models, specifically Project-Based Learning (PjBL) and Problem-Based Learning (PBL) supported by digital platforms like Canva and Quizizz, which effectively foster creativity, critical thinking, and religious discipline. Furthermore, the evaluation framework shifts from conventional testing to a continuous, comprehensive system incorporating worship monitoring journals and behavioral rubrics. The findings imply that a synergy between institutional leadership and pedagogical technology can successfully unify vocational competence with Islamic spiritual values. However, the study is limited by its specific case scope and a restricted participant pool, necessitating caution regarding broader generalizability. Consequently, future research should focus on longitudinal assessments of character outcomes and the diversification of AI-supported tools to mitigate teacher adaptation fatigue in rapidly changing policy environments.

Abstrak: Penelitian ini mengkaji strategi, mekanisme evaluasi, dan rekomendasi pengembangan inovasi kurikulum Pendidikan Agama Islam (PAI) berbasis karakter di SMK Aswaja Banyuwangi. Dengan menggunakan pendekatan kualitatif deskriptif dengan desain studi kasus tunggal, penelitian ini mengeksplorasi bagaimana kerangka kerja pendidikan kejuruan secara sistematis mengintegrasikan tradisi spiritual dengan tuntutan pendidikan modern. Data dikumpulkan melalui wawancara semiterstruktur dengan informan kunci, observasi lapangan, dan tinjauan dokumentasi, yang dilanjutkan dengan analisis tematik serta triangulasi ketat untuk memastikan validitas internal. Hasil penelitian menunjukkan bahwa inovasi kurikulum didorong oleh analisis kebutuhan komprehensif yang bertujuan menyelaraskan pembelajaran dengan dinamika kontemporer sekaligus mempertahankan pembentukan karakter secara holistik. Implementasinya menggunakan model pembelajaran yang berpusat pada siswa, khususnya *Project-Based Learning* (PjBL) dan *Problem-Based Learning* (PBL) yang didukung oleh platform digital seperti Canva dan Quizizz, yang secara efektif menumbuhkan kreativitas, berpikir kritis, dan disiplin religius. Selanjutnya, kerangka evaluasi beralih dari pengujian konvensional menuju sistem yang berkelanjutan dan menyeluruh dengan mengintegrasikan jurnal pemantauan ibadah dan rubrik perilaku. Temuan ini menyiratkan bahwa sinergi antara kepemimpinan institusional dan teknologi pedagogis dapat berhasil menyatukan kompetensi vokasional dengan nilai-nilai spiritual Islam. Namun, penelitian ini dibatasi oleh lingkup kasus yang spesifik dan jumlah partisipan yang terbatas,

sehingga memerlukan kehati-hatian terkait generalisasi temuan secara luas. Oleh karena itu, penelitian mendatang disarankan untuk berfokus pada penilaian longitudinal terhadap luaran karakter dan diversifikasi alat bantu berbasis kecerdasan buatan (AI) untuk memitigasi kelelahan adaptasi guru dalam lingkungan kebijakan yang berubah cepat.

1. Introduction

Digital transformation and globalization in the Society 5.0 era demand a paradigm shift in education, moving beyond mere knowledge transfer toward holistic character building that encompasses intellectual, emotional, and moral intelligence.¹ Within this landscape, curriculum innovation has become an urgent necessity to respond to global changes without negating humanistic and religious values.² Although Indonesia's national curriculum reforms—ranging from the Competency-Based Curriculum (KBK) to the *Kurikulum Merdeka* (Independent Curriculum)—have consistently emphasized a balance between academic competence and character formation,³ field realities indicate that the organic internalization of moral-spiritual values within the learning process remains challenging to implement.⁴ This condition creates an exigency for the development of instructional instruments capable of inherently embedding these values amidst technological disruption.

Broadly speaking, the educational curriculum plays a pivotal role in determining a nation's educational progress.⁵ Within this framework, Islamic Religious Education (IRE) occupies a critical position as the core of value-based education in schools. IRE serves to integrate cognitive, affective, and psychomotor dimensions to ensure that religious values are internalized in daily life, with IRE teachers acting as facilitators, mentors, role models, and moral agents.⁶ Research indicates that IRE curriculum innovation based on Islamic values can enhance social responsibility, spiritual awareness, and discipline.⁷ Furthermore, curriculum designs that synthesize knowledge, ethics, and spirituality have been proven to bridge the gap between theoretical understanding and the practical application of Islamic values in real-world contexts.⁸ Consequently, the concept of

¹ Sabingatun Dewi Masitoh and Dwi Purbowati, "Enhancing Teacher Professionalism in Indonesia: Challenges and Strategies for Digital Technology Utilization in the Society 5.0 Era," *Heutagogia: Journal of Islamic Education* 4, no. 2 (2024): 219–36, <https://doi.org/10.14421/hjie.2024.42-06>.

² Peter Kondrla et al., "The Philosophical Context of Curriculum Innovations with a Focus on Competence Development," *Journal of Education Culture and Society* 14, no. 2 (September 28, 2023): 78–92, <https://doi.org/10.15503/jecs2023.2.78.92>.

³ P Mahanani et al., "Educational Analysis to Develop Character in Malaysia and Indonesia," *International Journal of Instruction* 15, no. 3 (2022): 377–92, <https://doi.org/10.29333/iji.2022.15321a>.

⁴ Tasman Hamami and Zalik Nuryana, "A Holistic-Integrative Approach of the Muhammadiyah Education System in Indonesia," *HTS Teologiese Studies / Theological Studies* 78, no. 4 (December 7, 2022): a7607, <https://doi.org/10.4102/hts.v78i4.7607>.

⁵ Zaitun and Musa Thahir, "Curriculum Innovation Policy in Madrasah Ibtidaiyah Riau: Evaluation and Recommendations in the Pandemic Period," *ZAHRA: Research and Thought Elementary School of Islamic Journal* 6, no. 1 (2025): 22–44, <https://doi.org/10.37812/zahra.v6i1.1700>.

⁶ Ahmad Abdul Rochim and Amal Khayati, "Role of Islamic Education Teachers in Shaping Students' Religious Character in the Digital Era: A Case Study of SDN 1 Kondangsari, Cirebon," *HEUTAGOGIA: Journal of Islamic Education* 3, no. 2 (2023): 259–69, <https://doi.org/10.14421/hjie.2023.32-10>.

⁷ M Mukhibat et al., "Development and Evaluation of Religious Moderation Education Curriculum at Higher Education in Indonesia," *Cogent Education* 11, no. 1 (December 31, 2024): 2302308, <https://doi.org/10.1080/2331186X.2024.2302308>.

⁸ Marcela Georgina Gómez Zermeno and Lorena Yadira Alemán de la Garza, "Open Laboratories for Social Innovation: A Strategy for Research and Innovation in Education for Peace and Sustainable Development Sustainable Development Is an Issue of High Relevance for All Countries, and Universities Play

curriculum integration is vital in shaping the Muslim personality;⁹ as a foundation for character education, it represents a strategic step in ensuring that the direction of national curriculum reform remains anchored in humanistic and religious principles.

In an institutional context, the idea of IRE curriculum innovation finds its relevance at SMK Aswaja Banyuwangi, a vocational high school under the auspices of the Aswaja Islamic Boarding School (*Pesantren*) Foundation. The institution possesses a unique character by integrating *pesantren* traditions with a modern vocational education system. With a vision to "produce knowledgeable and beneficial alumni," the foundation's mission is to strengthen learning processes that are conducive, contemporary, innovative, and relevant; to instill Islamic values through the cultivation of noble character (*akhlakul karimah*); to develop superior human resources; and to cultivate professional community leaders. These values underscore that education under this foundation does not merely focus on academic competence but also prioritizes moral and personality development. Thus, SMK Aswaja Banyuwangi serves as a significant representation of a religious institution that successfully merges Islamic values with modern, character-oriented educational principles.

These efforts align with various previous research findings that affirm the importance of value-based curriculum innovation. Studies have shown that developing an IRE curriculum grounded in Islamic values is effective in strengthening spiritual and social character.¹⁰ Furthermore, research by Sari et al. revealed that curriculum designs integrating knowledge, ethics, and spirituality can foster a balance between intellectual and moral intelligence.¹¹ Beyond that, the focus on value-based curriculum innovation and implementation has expanded across various educational levels, employing diverse analytical methods, including bibliometric analysis.¹² Additionally, Haddade et al. explored the development of innovative IRE curriculum models in *madrasah* environments, emphasizing the integration of learning technology and student-centered approaches alongside the reinforcement of spiritual and social values.¹³ Meanwhile, Nur Effective character education is achieved through habituation—including routine, spontaneous, and exemplary activities—supported by active parental involvement and teacher motivation.¹⁴ Similarly, Marlina Eliyanti Simbolon et al. demonstrated that character formation in elementary schools is optimized through consistent value

a Fundamental Role in Promotin," *International Journal of Sustainability in Higher Education* 22, no. 2 (2020): 344–62, <https://doi.org/10.1108/IJSHE-05-2020-0186>.

⁹ Arifin Musthova and Ahmad Dwi Nur Khalim, "The Integration of National and Local Curricula: A Framework for Shaping the Muslim Personalities of Students at Madrasah Diniyah Takmiliah Ula Al-Hidayah Klaten," *HEUTAGOGIA: Journal of Islamic Education* 4, no. 2 (2024): 147–62, <https://doi.org/0.14421/hjie.2024.42-01>.

¹⁰ Mukhibat et al., "Development and Evaluation of Religious Moderation Education Curriculum at Higher Education in Indonesia."

¹¹ Lalu Mohammad Abid Zainul Puad and Karen Ashton, "A Critical Analysis of Indonesia ' s 2013 National Curriculum: Tensions between Global and Local Concerns," *The Curriculum Journal* 34, no. 3 (2023): 521–35, <https://doi.org/10.1002/curj.194>.

¹² Yuri Indri Yani, Wahyudin Nur Nasution, and Siti Halimah, "Implementation of the Merdeka Curriculum in Islamic Religious Education and Character Education: A Multisite Study at SMA Negeri 1 and 2 Sibolga," *Jurnal Pendidikan Islam* 14, no. 1 (2025): 35–49, <https://doi.org/10.14421/jpi.2025.141.35-49>.

¹³ Hasyim Haddade et al., "Madrasah Management Strategies through Madrasah Reform Program: An Evidence from Indonesia," *International Journal of Educational Management* 38, no. 5 (2024): 1289–1304, <https://doi.org/10.1108/IJEM-05-2023-0236>.

¹⁴ Wasehudin Wasehudin et al., "The Paradigm of Character Education in Islamic Elementary School," *Islam Futura* 24, no. 2 (2024): 368–97, <https://doi.org/10.22373/jiif.v24i2.22546>.

integration and teacher role-modeling.¹⁵ Conversely, Tuhuteru et al. noted that the effectiveness of character-based curricula depends heavily on the teacher's ability to apply contextual and reflective learning strategies.¹⁶

In general, existing literature confirms that the success of curriculum innovation lies in the integration of Islamic values with relevant, character-oriented learning practices. Nevertheless, a significant research gap remains: there is a lack of in-depth study specifically within the context of Vocational High Schools (SMK), particularly those with a *pesantren* background. This specific background creates unique demands—namely, the alignment of religious character building with the mastery of modern vocational competencies required for workforce readiness.

To address this gap, the present study focuses on analyzing the Strategies, Evaluation, and Recommendations for developing a character-based IRE curriculum innovation at SMK Aswaja Banyuwangi. This research is directed toward understanding how curriculum innovation is systematically designed and implemented within a vocational education framework. Specifically, this study does not merely describe innovative practices but also evaluates their implementation effectiveness and offers systematic development recommendations. The primary novelty of this research lies in the synthesis of the *Aswaja pesantren* spiritual tradition with modern, technology-based, and character-oriented educational approaches. Through an analysis of actual practices at SMK Aswaja, this study is expected to contribute significantly to the development of contextual and humanistic IRE curricula while offering an adaptive implementation model for the demands of Islamic education in the digital age.

2. Method

This study employs a descriptive qualitative approach with a case study design conducted at SMK Aswaja Banyuwangi. This methodology was selected to facilitate an in-depth investigation into the practices of character-based Islamic Religious Education (IRE) curriculum innovation, specifically focusing on its development, implementation, evaluation, and broader impact. SMK Aswaja Banyuwangi was designated as the research site due to its representative and relevant application of character-based IRE curriculum models, which provides significant and applicable insights for the field of religious education.

The research was conducted through a systematic four-stage procedure: (1) the preparation phase, involving site selection and institutional permission; (2) the participant recruitment phase using specific criteria; (3) the data collection phase, where primary and secondary data were gathered simultaneously; and (4) the synthesis phase, involving data analysis and verification to ensure the findings accurately reflect the field conditions.

The primary instrument for data collection was a semi-structured interview guide. This tool was specifically designed to explore critical dimensions, including the rationale behind the curriculum innovation, planning and development processes, pedagogical models, teacher roles, and evaluation systems. Additionally, recording devices and field

¹⁵ Yosua Budi Ristiono et al., "The Influence of Teacher Personality Quality on the Spiritual Growth of a Congregation," *Pharos Journal of Theology* 103, no. 2 (2022): 1–16, <https://doi.org/10.46222/pharosjot.103.2048>.

¹⁶ Laros Tuhuteru et al., "Strategies For Primary School Students Understanding Of Character Education Through The Active Role Of Teachers," *Journal on Education* 5, no. 4 (March 24, 2023): 13569–77, <https://doi.org/10.31004/joe.v5i4.2365>.

notes were utilized to ensure the precision and integrity of the data captured during the sessions.

Participants were selected using a purposive sampling technique, focusing on an IRE teacher who is actively implementing the curriculum. This selection was based on the teacher's direct experience in designing and executing IRE curriculum strategies, serving as a "key informant" despite the logistical constraints of time and distance that limited the number of participants. Data collection was further enriched by documentation review, including teaching modules, syllabi, and curriculum evaluation rubrics to triangulate the findings. The gathered data were then processed using thematic analysis, which involved transcribing, coding, and identifying recurring themes or patterns to provide a comprehensive narrative of the curriculum innovation.

To ensure the study's credibility (internal validity), the researcher employed member checking by re-confirming the findings with the participant. This process ensured that the data interpretation was accurate and aligned with the participant's actual experiences. Furthermore, data triangulation—cross-referencing interview transcripts with pedagogical documents—was conducted to enhance the robustness and authenticity of the research results, ensuring that the study reflects a legitimate representation of the curriculum practices at SMK Aswaja Banyuwangi.

3. Results

This section presents the primary findings of the study regarding the innovation of the Islamic Religious Education (IRE) curriculum at SMK Aswaja Banyuwangi. The data gathered through interviews, observations, and documentation are categorized into thematic findings following the research objectives: rationale, design, implementation, evaluation, and outcomes.

3.1. Rationale and Systematic Process of Innovation

The findings indicate that curriculum innovation at SMK Aswaja Banyuwangi is driven by a comprehensive need analysis to align learning with contemporary educational dynamics. An informant stated, *"Curriculum development is driven by the mutual needs of educators and students to ensure the learning system remains relevant and enhances instructional quality."*¹⁷ Documentation reveals that this shift moves beyond academic achievement toward holistic character building.¹⁸

The innovation process is reported as a systematic and adaptive effort. Data shows that the IRE teacher acts as the primary implementer, supported by periodic supervision from IRE supervisors. Furthermore, leadership support is high, with the informant noting that *"the principal's response as a leader is 90% positive."*¹⁹ This indicates a top-down and bottom-up synergy in curriculum renewal.²⁰

3.2. Curriculum Design and Pedagogical Strategies

The IRE curriculum design is centered on the school's vision to produce graduates who are "knowledgeable and beneficial." The data demonstrates a student-centered approach that integrates the *Pancasila Student Profile* (a national character framework) with Islamic values.²¹ Table 1 summarizes the specific pedagogical strategies and technologies identified in the study.

¹⁷ Interview with IRE Teacher, SMK Aswaja Banyuwangi, August 12, 2025.

¹⁸ Document Review: *SMK Aswaja Strategic Plan 2024-2026*, p. 14.

¹⁹ Interview with IRE Teacher, SMK Aswaja Banyuwangi, August 12, 2025.

²⁰ Observation of Curriculum Coordination Meeting, July 20, 2025.

²¹ Document Review: *IRE Lesson Plans (RPP) for Grade X*, 2025.

Table 1. Matrix of IRE Instructional Innovation at SMK Aswaja

Instructional Method	Digital Media/Technology	Targeted Character Traits	Learning Activity Description
Project-Based Learning (PjBL)	Canva, CapCut	Creativity, Critical Thinking	Students design visual da'wah materials or produce short Islamic-themed videos.
Problem-Based Learning (PBL)	Google Search, YouTube	Independence, Analytical Thinking	Students engage in group discussions to analyze and propose solutions to contemporary moral issues.
Collaborative Learning	Google Docs, Google Drive	Cooperation (<i>Gotong Royong</i>)	Students collaboratively prepare real-time reports for character-based projects.
Gamification	Quizizz, Wordwall	Honesty, Sportsmanship	Interactive formative assessments emphasizing fairness, honesty, and healthy competition.

3.3. Evaluation Framework and Non-Academic Instruments

The evaluation system implemented at SMK Aswaja is designed to be both continuous and comprehensive, reflecting a holistic approach to student assessment. The findings indicate that evaluation practices are not confined to conventional academic testing; rather, they systematically integrate non-academic assessment instruments to capture students' character development and behavioral growth over time. This approach aligns with the school's emphasis on character education as an integral component of the learning process:²²

Several non-academic instruments are employed to support this evaluative framework. First, worship monitoring journals are used to document students' consistency in performing *Dhuha* prayers and maintaining daily religious routines. These journals function not merely as attendance records but as reflective tools that encourage students to cultivate personal discipline, spiritual responsibility, and self-regulation. Through regular monitoring, teachers are able to observe patterns of consistency and provide guidance where necessary.

Second, P5 project rubrics serve as structured instruments to assess students' achievement across the dimensions of the *Pancasila Student Profile*. These rubrics translate abstract character values—such as cooperation, independence, critical thinking, and social awareness—into observable indicators that can be assessed during project-based and contextual learning activities. By embedding character indicators within project evaluation, the school ensures that cognitive achievement and character formation are assessed simultaneously.

Third, attitude observation sheets are utilized by teachers to monitor students' discipline and social responsibility in everyday school life. These instruments capture observable behaviors, including punctuality, adherence to school rules, and participation in maintaining a clean and orderly school environment. Such observations enable teachers to assess character traits in authentic contexts rather than relying solely on self-reports or written tests.

As emphasized by one informant, "*Evaluation must be continuous... it does not only use academic tests but must also use non-academic instruments, typically through P5 or practical assessments to determine attitude and character.*"²³ This statement underscores the school's commitment to ongoing evaluation and reinforces the principle that

²² Interview with Vice Principal of Curriculum, August 14, 2025.

²³ Interview with IRE Teacher, SMK Aswaja Banyuwangi, August 12, 2025.

character education requires sustained observation and reflection. Overall, the evaluation system at SMK Aswaja demonstrates an intentional integration of academic and non-academic assessments, ensuring that students' intellectual development and character growth are measured in a balanced and meaningful manner.

3.4. Framework Construction: "Arabic Language Learning as a Holistic Experience"

The study identified "adaptation fatigue" as a primary challenge due to frequent national curriculum changes. An informant remarked, *"Changes in the curriculum over several years cause teachers to have to start new things to learn them."*²⁴ To address this, the school implements "In-House Training" (IHT) and optimizes the Subject Teacher Forum (MGMP), as evidenced in the school's professional development logs.²⁵ Based on these findings, Table 2 outlines the strategic recommendations for future development.

Table 2. Data-Driven Recommendations for Curriculum Development
(Synthesized from Informant Suggestions and Field Analysis, 2025)

Aspect	Identified Challenges	Recommended Development Strategies
Teacher Competency	High adaptation demands and reliance on limited instructional approaches.	Strengthen teachers' digital literacy through cross-sector collaboration and active participation in MGMP professional communities.
Infrastructure	Utilization of educational technology is concentrated on a limited number of platforms.	Diversify the use of AI-supported learning tools while ensuring alignment with Pesantren (Aswaja) values.
Institutional Synergy	Insufficient structural alignment between Pesantren traditions and the SMK curriculum.	Formalize an integrated curriculum framework that institutionally bridges local Pesantren values with national education standards.

3.5. Outcomes of Curriculum Implementation

The implementation of the innovated curriculum is found to impact three primary domains: spiritual-affective, cognitive, and psychomotor. The informant explained, *"The final result... must include improvement in three main domains: spiritual-affective (character), cognitive (knowledge), and psychomotor (practical worship skills)."*

Specifically, the data indicates that religious character and discipline are fostered through congregational prayers, while creativity is developed via digital media projects (Canva). Furthermore, the use of digital evaluation tools (Quizizz) is reported to cultivate honesty and responsibility. The synthesis of these findings suggests that the integration of character values, contextual learning, and digital technology enhances the overall quality of Islamic education at the institution.²⁶

4. Discussion

The character-based Islamic Religious Education (IRE) curriculum innovation at SMK Aswaja Banyuwangi reflects an adaptive response to the challenges of the digital era by prioritizing holistic character development. This initiative stems from a critical awareness of preserving educational relevance, ensuring it remains firmly rooted in spiritual values amidst the pervasive influence of technological globalization. This objective is manifested through the school's vision to produce graduates who possess faith, piety, and mastery of science and technology. Consequently, the IRE curriculum emphasizes not only academic achievement but also moral and spiritual development as the foundation for navigating social dynamics and digital advancement.

²⁴ Interview with IRE Teacher, SMK Aswaja Banyuwangi, August 12, 2025.

²⁵ Document Review: *Teacher Professional Development Log 2024/2025*.

²⁶ Classroom Observation and Student Output Review, August 22, 2025.

Integrating ethical values into IRE learning enables students to navigate shifts in mindset and social behavior triggered by technological developments.²⁷ In this context, curriculum innovation serves as an effort to introduce novel ideas to address moral challenges within society.²⁸ The role of the IRE teacher as a role model becomes increasingly vital, as Islamic values are insufficient if merely taught; they must be embodied through daily habituation and exemplary conduct. The innovation process itself is conducted systematically and collaboratively. IRE teachers act as the primary drivers in planning and implementation, receiving full support from supervisors and the school principal. Institutional commitment to renewal is evident in the 90% positive response from the school principal, signifying a collective awareness of the urgency for educational transformation. The stages of innovation encompass needs identification, the development of learning modules, and the application of integrated strategies to enhance cognitive, affective, and psychomotor domains. The integration of information technology is a crucial element, where a blended learning approach—utilizing web platforms, blogs, and multimedia—has been proven to increase student engagement and learning motivation. Through a combination of online and offline learning via platforms such as Google Classroom and WhatsApp, instructional effectiveness is maintained despite time constraints.²⁹

Nevertheless, rapid curriculum shifts often create a gap between ideal concepts and field implementation. This condition aligns with the findings of the Provus' Discrepancy Model, which highlights the divergence between curriculum standards and their actual execution. In addressing these challenges, the school principal serves as a planner, communicator, evaluator, and motivator who fosters a conducive and adaptive learning environment. The principal also acts as a lead innovator, ensuring the *Kurikulum Merdeka* (Independent Curriculum) is effectively implemented despite obstacles such as limited teacher adaptation and parental involvement.³⁰ Therefore, the curriculum innovation process at SMK Aswaja reflects a synergy between institutional vision, teacher professionalism, and the active participation of all educational stakeholders. This synergy forms a robust foundation for creating a curriculum model oriented toward character and student needs.

As a follow-up to the collaboration established between teachers, principals, and policymakers, the curriculum at SMK Aswaja is designed to be student-centered, emphasizing the development of faith, piety, and the mastery of science and technology. This principle is realized through instructional strategies such as Problem-Based Learning (PBL) and Project-Based Learning (PjBL), combined with the utilization of digital media such as Google Quizzes and Canva. Such models promote student-centered

²⁷ Firuz Kamalov, David Santandreu Calonge, and Ikhlaas Gurrib, "New Era of Artificial Intelligence in Education: Towards a Sustainable Multifaceted Revolution," *Sustainability* 15, no. 16 (2023): 12451, <https://doi.org/10.3390/su151612451>.

²⁸ Andy Nguyen et al., "Ethical Principles for Artificial Intelligence in Education," *Education and Information Technologies* 28, no. 4 (2023): 4221–41, <https://doi.org/10.1007/s10639-022-11316-w>.

²⁹ Ammar Abulibdeh, Esmat Zaidan, and Rawan Abulibdeh, "Navigating the Confluence of Artificial Intelligence and Education for Sustainable Development in the Era of Industry 4.0: Challenges, Opportunities, and Ethical Dimensions," *Journal of Cleaner Production* 437 (2024): 140527, <https://doi.org/10.1016/j.jclepro.2023.140527>.

³⁰ Bengi Birgili and Kamil Arif Kırkıç, "Evaluation of a Strategic Management Program: Context, Input, Process, Product Model as a Prototype for Business Academies," *TEM Journal* 10, no. 1 (2021): 204–14, <https://doi.org/10.18421/TEM101-26>.

learning by fostering project-based and inquiry-based approaches.³¹ These approaches assist students in developing critical, creative, and collaborative thinking skills. Furthermore, this methodology has proven effective in cultivating social, cognitive, and emotional skills while simultaneously building leadership character and responsibility. Moreover, the integration of Islamic values into every learning process establishes IRE as the primary pillar for the intellectual and moral formation of students, aligning with national educational goals.³² Thus, curriculum development at SMK Aswaja focuses not only on structure and content but also on strengthening spiritual values to foster a balance between academic competence and noble character (*akhlakul karimah*).

The findings of this study align with several previous investigations. The curriculum design integrating knowledge, ethics, and spirituality—as identified by Sari et al. and Syifaul Karima et al.—is confirmed effective through the application of technology-based PBL and PjBL at SMK Aswaja, which enhances students' religious motivation and understanding. The habituation approach for character building, as proposed by Nur Cahyani et al. and Marlina Eliyanti Simbolon et al., is also successfully demonstrated through the religious routines at this school, although it remains dependent on the teacher's contextual strategies, as noted by Abal Wahid Musyawir et al. However, this study offers a novel contribution by filling the research gap regarding vocational schools (SMK) with a *pesantren* (Islamic boarding school) background, where the synthesis of *Aswaja* spiritual traditions and modern vocational education produces an IRE curriculum innovation model that is more adaptive to the demands of the digital age.

A contextual approach that bridges material with reality further strengthens instructional effectiveness. Through project-based activities and religious reflection, students' motivation, understanding, and critical thinking abilities increase significantly.³³ In fact, the integration of knowledge, ethics, and spirituality through reflective activities has been proven to enhance religious comprehension by up to 30%. The utilization of digital technology within PBL and PjBL models also assists students in applying learning concepts to real-life situations.³⁴ Consequently, the implementation of technology-supported active learning serves as an essential foundation for building an adaptive and meaningful IRE experience.

To maintain consistency in learning quality, continuous teacher training is necessary to optimize the use of digital media. Furthermore, all instructional tools—including the annual program (*Prota*), semester program (*Prosem*), syllabus, lesson plans (*RPP*), and Competency-Based Curriculum (*KBK*)—are developed by considering student needs and school conditions. This holistic approach indicates that the IRE curriculum at SMK Aswaja is not only result-oriented in an academic sense but also focuses on producing individuals of character who are ready to contribute to society. Therefore,

³¹ Ulysses Cutamora, Giovanni Leonardo, and Maria Menierva Lagria, "Evaluating a Community-Based Rehabilitation Program Using Provus Discrepancy Evaluation Model," *Recoletos Multidisciplinary Research Journal* 1, no. Special Issue (April 5, 2025): 1–19, <https://doi.org/10.32871/rmrj25si.t2416>.

³² Lisa Handayani and Haeruddin, "Curriculum Innovation in Private Higher Education Institutions by Integrating Project-Based Learning to Enhance Students' Career Readiness," *Borneo Educational Jurnal* 7, no. 2 (2025): 306–22, <https://doi.org/10.24903/bej.v7i2.2040>.

³³ Xueli Wang et al., "Exploring the Relationship Between Community College Students' Exposure to Math Contextualization and Educational Outcomes," *Research in Higher Education* 63, no. 2 (2022): 309–36, <https://doi.org/10.1007/s11162-021-09644-w>.

³⁴ Dewa Nyoman Wija Astawa and I Wayan Widiana, "The Impact of Contextual Learning Grounded in Human Values on Enhancing Student Motivation and Outcomes in Social Science Education," *International Journal of Innovative Research and Scientific Studies* 8, no. 4 (June 25, 2025): 1376–82, <https://doi.org/10.53894/ijirss.v8i4.8080>.

curriculum innovation in this school can be understood as an effort to unify spiritual values with 21st-century competencies into a cohesive educational system.

Furthermore, the planning and execution of curriculum innovation at SMK Aswaja prioritize the principles of flexibility and collaboration. Each stage, from identifying needs and module preparation to classroom implementation, is conducted by adjusting to student characteristics and daily learning dynamics. The integration of religious education and modern science is a hallmark that prepares students to play an active role in society.³⁵ Collaboration between teachers, parents, and the community is built through an integrative approach, resulting in a holistic Islamic value-based curriculum that fosters superior character.³⁶ Continuous evaluation is conducted through tests, observations, reflections, and the implementation of the Pancasila Student Profile Strengthening Project (P5) to measure knowledge, morals, character, and practical worship skills.

Despite challenges such as online socialization hurdles and administrative complexity, the majority of teachers believe that the *Kurikulum Merdeka* is capable of improving both hard skills and soft skills. Parental support further reinforces moral formation, although it is still limited by resources. On the other hand, the integration of religious values through learning, habituation, and extracurricular activities strengthens spirituality, responsibility, honesty, and discipline.³⁷ Thus, the innovation and implementation of the IRE curriculum in this school demonstrate a positive synergy between spiritual, intellectual, and social aspects in forming a complete Islamic identity.

The results of the IRE curriculum innovation implementation at SMK Aswaja Banyuwangi indicate a significant improvement in learning quality and the reinforcement of religious character. The contextual approach applied by teachers has proven relevant to the needs of SMK students, who are required to think critically, be creative, and maintain integrity amidst the dynamics of the professional world.³⁸ Through the application of group discussion methods, project-based learning, and digital media, student participation has increased markedly in both cognitive and affective domains.³⁹ The integration of *Aswaja* values in learning activities ensures that IRE is not merely a normative subject but also a vehicle for internalizing moral and spiritual values that foster tolerance, discipline, and social empathy.⁴⁰ Religious activities such as congregational *Dhuha* prayers, the recitation of *Asmaul Husna*, and daily reflections have become part of a habituation system that strengthens religious consciousness.

In this context, the teacher acts as a value facilitator, spiritual guide, and motivator, ensuring that every learning activity is oriented toward character building and social

³⁵ Siti Marhamah Winarti, Nur Ahyani, and Nurlina Nurlina, "The Influence of Independent Curriculum and Classroom Management on Elementary Students' Learning Outcomes in Ogan Ilir," *International Journal of Educational Development* 2, no. 3 (May 14, 2025): 9–18, <https://doi.org/10.61132/ijed.v2i3.307>.

³⁶ Mash'al El Sleemi, Abdullah Al Jughaiman, and Sarah Al Fawzan, "Student Perceptions of Innovation Indicators in General Education: Insights for Enhancing Knowledge and Practice," *Frontiers in Education* 10 (2025): 1–8, <https://doi.org/10.3389/educ.2025.1502771>.

³⁷ Musthova and Khalim, "The Integration of National and Local Curricula: A Framework for Shaping the Muslim Personalities of Students at Madrasah Diniyah Takmiliah Ula Al-Hidayah Klaten."

³⁸ Gulbahar H. Beckett, "Project-Based Learning For 21st-Century Skills: The Five C'S For L2 Student," *Docens Series in Education* 5 (November 6, 2023): 40–57.

³⁹ Nadi Suprpto, Handal Setyo Ibisono, and Husni Mubarak, "The Use of Physics Pocketbook Based on Augmented Reality on Planetary Motion To Improve Students' Learning Achievement," *Journal of Technology and Science Education* 11, no. 2 (2021): 526–40, <https://doi.org/10.3926/jotse.1167>.

⁴⁰ Astawa and Widian, "The Impact of Contextual Learning Grounded in Human Values on Enhancing Student Motivation and Outcomes in Social Science Education."

responsibility.⁴¹ The curriculum innovation at SMK Aswaja can therefore be understood as a strategic step to reaffirm the role of Islamic education in maintaining the balance between the mastery of knowledge, skills, and morality. Consequently, the implementation of character-based IRE curriculum innovation in this school not only improves academic quality but also fosters a spiritual awareness that is contextual and grounded in student life.

Finally, to strengthen character-based IRE curriculum innovation in the future, several strategic steps are recommended. Beyond collaborating with relevant parties such as fellow teachers and school stakeholders, the most urgent priority is the enhancement of teacher training in technology integration and active learning to bolster instructional effectiveness.⁴² Second, collaboration with parents and the community should be expanded to enrich non-academic evaluations and support holistic character formation.⁴³ Third, the development of digital modules responsive to student needs will strengthen learning flexibility and relevance. Fourth, further research is essential to assess the long-term impact of curriculum innovation on character formation. Fifth, more intensive curriculum socialization can help overcome teacher adaptation barriers and ensure sustainable implementation.⁴⁴ By applying these recommendations, the IRE curriculum at SMK Aswaja Banyuwangi is expected to become a model for character education that is resilient and relevant in the digital age.

The implications of these research findings suggest that character-based IRE curriculum innovation at SMK Aswaja Banyuwangi is not merely a response to digital era demands but represents an integrative effort to unify spiritual values, vocational competence, and technological literacy in educational practice. This condition confirms that the strengthening of religious character can proceed alongside the development of 21st-century skills when supported by synergy between teachers, principals, parents, and a conducive school culture. Theoretically, these findings enrich the study of IRE curriculum innovation, particularly within the context of vocational schools with *pesantren* backgrounds, which remain relatively under-discussed in Islamic education literature. Practically, the results of this study can serve as a reference for developing IRE curricula that are more contextual, adaptive, and consistently rooted in Islamic values. Therefore, subsequent research should be conducted in different school contexts to test the sustainability of this model and observe the long-term impact of curriculum innovation on character building and student readiness for social and professional dynamics.

5. Conclusion

This study aims to analyze the strategies, evaluation, and development recommendations for character-based Islamic Religious Education (IRE) curriculum innovation at SMK

⁴¹ Parama Kwangmuang et al., "The Development of Learning Innovation to Enhance Higher Order Thinking Skills for Students in Thailand Junior High Schools," *Heliyon* 7, no. 6 (June 1, 2021): e07309, <https://doi.org/10.1016/j.heliyon.2021.e07309>.

⁴² Kangwa Daniel et al., "Motivate Students for Better Academic Achievement: A Systematic Review of Blended Innovative Teaching and Its Impact on Learning," *Computer Applications in Engineering Education* 32, no. 4 (July 1, 2024): e22733, <https://doi.org/10.1002/cae.22733>.

⁴³ Daniel Mucinskas et al., "An Increase in Educator Expectations of Student Character Growth during Participation in a Community of Practice," *Frontiers in Education* 10 (2025): 1–17, <https://doi.org/10.3389/educ.2025.1466295>.

⁴⁴ Verónica Fernández-Espinosa, Paloma Redondo-Corcobado, and Marta Velázquez Gil, "Perspectives and Attitudes of Teachers on Character Education in Schools in the Community of Madrid," *Cogent Social Sciences* 11, no. 1 (December 31, 2025): 2556219, <https://doi.org/10.1080/23311886.2025.2556219>.

Aswaja Banyuwangi. Findings reveal that the innovation emerged from the necessity to adapt the educational system to remain relevant and enhance instructional quality. This innovation is oriented toward integrating Islamic values with 21st-century competencies through the application of Project-Based Learning (PjBL) and Problem-Based Learning (PBL) models, supported by digital tools such as Google Quizzes and Canva. The implementation of these strategies has proven effective in enhancing critical thinking skills, independent learning, and religious character, resulting in significant improvements across three primary domains: spiritual-affective, cognitive, and psychomotor. The success of the program is further reinforced by robust collaboration between teachers, school principals, and parents, as well as the institutionalization of religious habituation (e.g., congregational *Dhuha* prayers). Scientifically, this research provides a significant contribution by presenting a contextual and applicable IRE curriculum development model for the modern era, specifically within the context of Vocational High Schools (SMK) with an Islamic boarding school (*pesantren*) background. It successfully synthesizes the *Aswaja* spiritual tradition with modern vocational education. However, this study is subject to limitations, including a single case study design and a restricted number of participants among IRE teachers, which may affect the generalizability of the findings. For future research, it is recommended to continuously enhance teacher training in technology integration and active learning, expand parental collaboration, develop responsive digital modules, and conduct longitudinal studies to assess the long-term impact of curriculum innovation on character formation.

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