International Journal of Education, Vocational and Social Science
https://e-journal.citakonsultindo.or.id/index.php/IJEVSS
E-ISSN : 2963 4954
IJEVSS

Robert Stake's Responsive Evaluation Of The Pai Tkj Program Learning At Smk Nasional Malang: A Multi-Stakeholder Perspective

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Abstract

This study evaluates Islamic Religious Education (PAI) in the Computer and Network Engineering (TKJ) program at SMK Nasional Malang using Robert E. Stake's Responsive Evaluation Model. Addressing the unique ethical challenges of vocational-digital contexts, the research employs a qualitative evaluative design. Data were gathered from multiple stakeholders, including students, PAI teachers, vocational teachers, school leaders, and parents, through interviews, observations, and document analysis. The analysis utilized Stake's congruence-contingency matrix covering antecedents, transactions, and outcomes. Findings reveal that while the intended PAI program provides a foundational moral ecology, significant gaps exist between intended and observed realities. Specifically, antecedents lack contextually grounded instructional documents; transactions demonstrate only episodic, rather than systematic, integration of Islamic values with digital scenarios; and outcomes show emerging but uneven development of digital ethics and vocational character. The study concludes that effective PAI in vocational settings requires structured cross-teacher collaboration, digital case-based pedagogy, and responsive, stakeholder-driven improvements to harmonize Islamic moral education with the ethical demands of modern technology training.

Keywords: Responsive evaluation, Islamic Religious Education, digital ethics.

INTRODUCTION

Islamic Religious Education (PAI) plays a strategic role in Indonesia's national education

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system by fostering faith, noble character, and professional responsibility. In vocational secondary education, particularly within the Computer and Network Engineering (TKJ) program, PAI faces increasing complexity. Students operate within an intensely digital learning ecosystem involving hardware, software, network security, and digital communication (Murniasih, 2025). Consequently, PAI must evolve beyond traditional normative instruction to address the unique moral and spiritual demands of this technology-driven environment.

The digital environment presents well-documented ethical risks that require robust moral foundations. Issues such as cyberbullying, digital plagiarism, misinformation, privacy violations, and unauthorized network access represent concrete moral challenges for students possessing advanced technical competencies (Hartati, 2025; Setiawan et al., 2025). Without adequate ethical grounding, technical proficiency can become a societal risk rather than a benefit. Therefore, PAI holds a critical function in framing technology not as a value-neutral space, but as an *amanah* (trust) that demands strict moral, social, and spiritual accountability (Yafithufail, 2025).

Despite its critical importance, the evaluation of PAI in vocational schools frequently remains constrained to superficial administrative compliance. Current practices often focus merely on verifying the presence of lesson plans, attendance records, and grade reports, neglecting the depth of the learning experience, interaction quality, and actual attitudinal changes perceived by stakeholders (Lestari, 2023). This narrow evaluative lens risks producing a misleading picture of program quality and fails to capture how Islamic values are genuinely internalized within a vocational context.

A distinct research gap exists in the current literature regarding the evaluation of PAI in vocational-digital contexts. While recent studies have applied evaluation models to general school programs (Areola, 2023) or examined digital ethics in Islamic education broadly (Farichah, 2024; Haryanti, 2025), no study has integrated a responsive evaluation framework, the specific TKJ vocational context, digital ethics, and multi-stakeholder perspectives into a single analytical model. Addressing this gap is essential for developing contextually relevant evaluation mechanisms.

To address this gap, this study employs Robert E. Stake's Responsive Evaluation Model, which prioritizes the authentic claims, concerns, and experiences of program participants over rigid, predetermined objectives (Rahmadhani, 2024). Grounded in contemporary applications of Stakeholder Theory, this approach ensures epistemic justice by giving legitimate evaluative weight to the voices of students, teachers, school leaders, and parents (Macabrey et al., 2024). Consequently, this study aims to evaluate PAI learning in the TKJ Program at SMK Nasional Malang

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through a multi-stakeholder lens, analyzing antecedents, transactions, and outcomes to formulate responsive, contextually grounded recommendations.

This study employed a qualitative evaluative design structured as an intrinsic-instrumental case study aligned with Stake's Responsive Evaluation methodology to examine Islamic Religious Education (PAI) in the Computer and Network Engineering (TKJ) Program at SMK Nasional Malang. Utilizing purposive sampling, data were gathered from five key stakeholder groups—TKJ students, PAI teachers, school leadership, vocational teachers, and parents—through in-depth semi-structured interviews, classroom and cultural observations, document analysis, and focus group discussions. The analytical procedure encompassed systematic transcription, thematic coding, and the application of Stake's congruence–contingency matrix (antecedents, transactions, and outcomes) alongside cross-stakeholder triangulation, all managed using ATLAS.ti software. To ensure rigorous trustworthiness, the research incorporated source and technique triangulation, member checking, peer debriefing, negative case analysis, and comprehensive audit trail documentation.

RESULTS

Antecedents: Document Readiness and Teacher Preparedness

The analysis of instructional documents revealed that PAI learning materials at the vocational school contain normative Islamic values including moral character, trustworthiness, honesty, and responsibility. However, these materials lack explicit contextualization with digital scenarios that TKJ students encounter daily, such as cyberbullying, digital plagiarism, data privacy concerns, network usage ethics, and online communication standards. This gap between the normative intended curriculum and the contextual needs of technology-focused students represents a critical antecedent limitation that affects the overall effectiveness of religious education delivery. Without deliberate integration of digital ethics scenarios, the materials remain abstract and disconnected from students' lived technological experiences.

Teacher readiness emerged as a multidimensional concern requiring careful examination. While PAI teachers demonstrated strong command of religious content and traditional pedagogical methods, their contextual pedagogical readiness—the capacity to translate Islamic values into technology-specific scenarios—remained underdeveloped. Teachers expressed the challenge of making religious material feel relevant to students' digital world rather than remaining purely normative. They acknowledged that without understanding the technology students engage with daily, producing relevant examples becomes increasingly difficult. This gap

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highlights the need for targeted professional development in contextual pedagogy.

The school's religious culture, encompassing daily prayer routines, Quran recitation sessions, congregational prayers, and disciplinary codes, provided a supportive moral ecology for PAI learning. However, this culture had not been explicitly connected to digital ethics or the specific vocational character demands faced by TKJ students in their technical laboratories and digital environments. The religious culture operated in parallel rather than in integration with the technical vocational culture, creating a missed opportunity for holistic character development.

Table 1. Antecedents Assessment: Intended versus Observed Conditions

Dimension	Intended Program	Observed Reality	Gap Analysis
Document Content	Islamic values integration	Normative content without digital contextualization	High gap
Teacher Competency	Contextual pedagogy	Strong religious knowledge, limited digital contextualization	Moderate gap
School Culture	Holistic moral ecology	Religious culture separate from laboratory culture	Moderate gap
Student Preparedness	Ready for integrated learning	Technologically engaged, seeking relevance	Alignment needed

The table above illustrates the systematic gaps between intended and observed antecedent conditions across multiple dimensions. The most significant discrepancy appears in document content, where normative materials fail to address the digital ethical dilemmas students face. Teacher competency shows a moderate gap, with strong foundational knowledge but insufficient contextual application skills. The school culture dimension reveals that while religious activities are well-established, they operate independently from the technical vocational environment. These findings indicate that antecedent strengthening must occur simultaneously across documents, teacher development, and cultural integration to create coherent preparatory conditions for effective PAI learning in the TKJ context.

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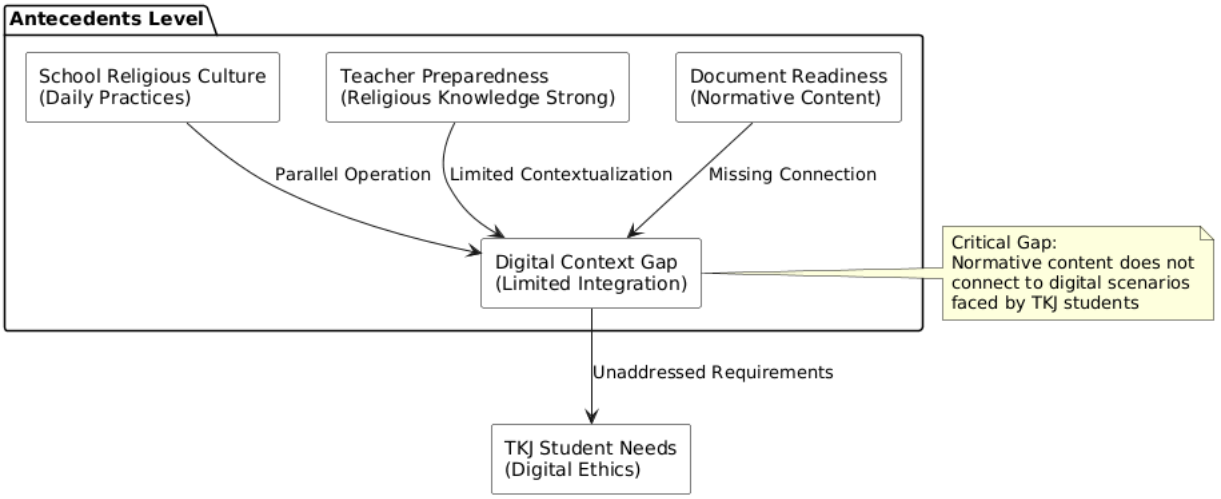


Figure 1. Antecedents Framework: Multi-Level Readiness Assessment

This diagram visually represents the antecedent conditions and reveals how the digital context gap emerges from the disconnection between document content, teacher preparedness, and school culture. The framework shows that while individual components exist, they fail to converge toward addressing TKJ students' specific digital ethics needs. The visual representation emphasizes that the gap is not due to absence of elements but rather their lack of integration and contextual alignment. This structural understanding guides the development of targeted interventions at the antecedent level.

Transactions: Contextualization Processes in Digital Learning

Classroom observations documented representative transaction sequences where teachers occasionally succeeded in connecting Islamic values to students' digital experiences. When teachers opened lessons by asking students about their social media use and negative online interactions, students responded actively with accounts of cyberbullying and inappropriate comments in class chat groups. Teachers then connected these responses to Islamic ethics of speech and the prohibition against causing harm to others, creating moments of genuine engagement. Such contextualization episodes demonstrably activated student motivation and participation, making abstract religious principles tangible and relevant. The coding analysis revealed a high co-occurrence pattern between PAI-TKJ relevance and student motivation, indicating that contextual relevance operates as a critical driver of transaction quality.

Analogous mappings emerged across the data showing how specific Islamic concepts could

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connect to digital competencies. The principle of tabayyun (critical verification) was linked to information literacy practices before sharing content online. The concept of amanah (trustworthiness) was connected to data security practices and responsible system access. Adab (moral etiquette) was mapped to digital communication norms and online behavior standards. Responsibility was linked to network stewardship and equipment care in laboratory settings. These connections demonstrated the rich potential for systematic integration of Islamic values with technical vocational content.

However, these integrations remained episodic rather than systematic, occurring sporadically rather than through designed instructional sequences. Vocational teachers observed that in the laboratory, the most essential character trait is responsibility, requiring students to maintain equipment, avoid arbitrary configuration changes, and work according to procedures. Unfortunately, the connection with PAI learning had not been structurally formed through collaborative planning or coordinated instruction. Three specific transaction limitations were identified: limited digital case studies in instructional materials, absence of structured PAI-vocational teacher collaboration, and minimal learning media explicitly bridging Islamic values and technology practice.

Table 2. Transaction Patterns: Contextualization Episodes and Limitations

Integration Type	Islamic Concept	Digital Application	Frequency	Effectiveness
Speech Ethics	*Adab al-kalam*	Social media communication	Occasional	High when present
Critical Thinking	*Tabayyun*	Information verification	Rare	Moderate
Trustworthiness	*Amanah*	Data security	Occasional	High when present
Responsibility	*Mas'uliyyah*	Equipment care	Rare	Moderate
Collaboration	*Ta'awun*	Team projects	Very Rare	Not assessed

The table above reveals the pattern of contextualization episodes, showing that while certain integrations occur occasionally, they lack systematic design and consistent implementation. Speech ethics and trustworthiness show higher frequency and effectiveness when present, indicating teacher comfort with these connections. However, critical thinking,

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responsibility, and collaboration integrations remain rare, suggesting underutilized opportunities for deeper value integration. The effectiveness ratings indicate that when contextualization does occur, student engagement and understanding improve significantly. This pattern confirms that the limitation is not the potential for integration but rather the absence of deliberate, systematic instructional design.

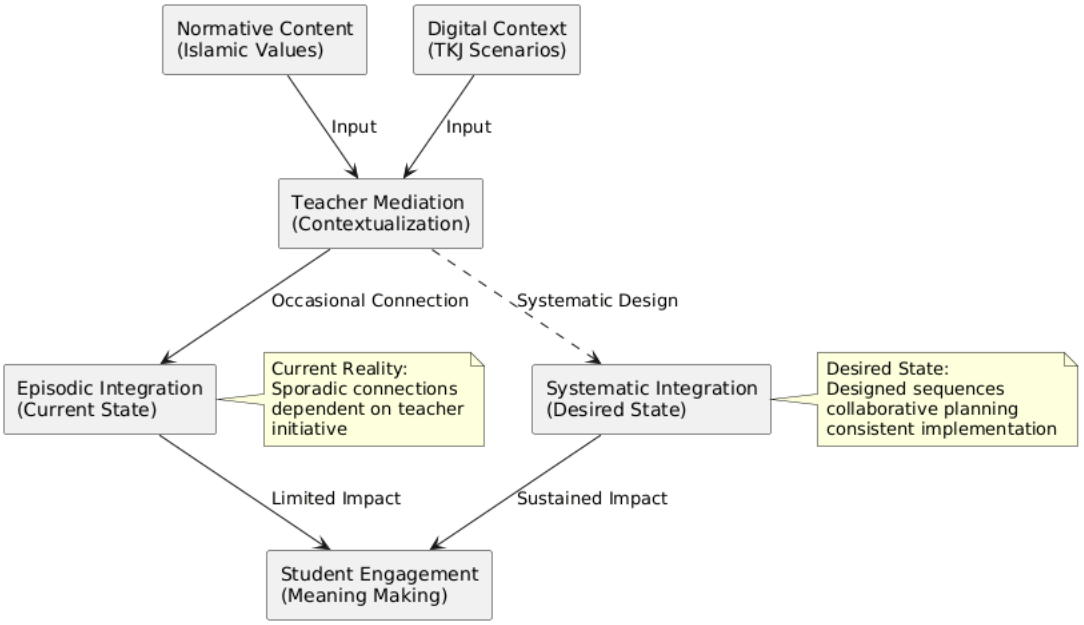


Figure 2. Transaction Process Model: From Normative to Contextual Learning

This diagram illustrates the transaction process, contrasting the current episodic integration with the desired systematic integration model. The visual representation shows how normative content and digital context both feed into teacher mediation, but the current state produces only occasional connections with limited student impact. The desired state, achieved through systematic design and collaborative planning, would generate sustained impact on student learning. This model clarifies that improving transactions requires structural changes in instructional design rather than merely encouraging individual teacher efforts.

Outcomes: Multi-Dimensional Character Development

Outcome data interpreted across three inter-related dimensions revealed emerging but uneven character development among TKJ students. Moral character changes, representing the core intended outcome of PAI, were reported by multiple stakeholder groups including parents

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who noticed their children becoming more careful when replying to messages. Students reported learning speech etiquette in PAI classes and applying these principles in social media groups, demonstrating transfer of religious learning to digital contexts. These observations indicate that PAI learning does produce measurable moral development, though the consistency and depth of this development varies across students.

Digital ethics outcomes represented the most distinctively vocational dimension of PAI impact, with students articulating emerging awareness of the moral dimensions of their technical competencies. Students began recognizing that computer skills must not be used to access other people's data without permission, understanding this violation as contrary to the Islamic principle of amanah. This awareness marks a critical development in forming technology professionals who understand their technical capabilities as moral trusts requiring ethical exercise. However, this awareness remained at the cognitive level for many students, not yet fully internalized as consistent behavioral patterns.

Vocational character outcomes including discipline, collaborative responsibility, and equipment stewardship showed partial emergence with selective improvements reported by vocational teachers. Teachers noted improvements in equipment care and network access responsibility among some students while acknowledging that these changes were not yet uniform across the student cohort. Stakeholder satisfaction varied significantly across groups: students rated PAI most meaningful when it engaged with real digital dilemmas, PAI teachers identified the need for more contextual instructional strategies, school leadership sought stronger integration between PAI and laboratory culture, and parents desired school-family partnerships to reinforce responsible device use at home.

Table 3. Outcomes Assessment: Multi-Stakeholder Perspectives

Outcome Dimension	Student View	Teacher View	Parent View	Vocational Teacher View
Moral Character	Improved awareness	Moderate progress	Noticeable change	Indirect observation
Digital Ethics	Emerging understanding	Needs reinforcement	Positive signs	Critical need
Vocational Character	Variable application	Inconsistent	Limited visibility	Partial improvement

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Overall Impact	Context-dependent	Effort-intensive	Encouraging	Requires integration

The table above presents the multi-stakeholder assessment of outcomes, revealing both convergence and divergence in perspectives. All stakeholders acknowledge positive developments in moral character and digital ethics, though they differ in their assessment of consistency and depth. The variation in perspectives reflects the different vantage points from which each group observes student behavior, with parents seeing home behavior, vocational teachers seeing laboratory conduct, and PAI teachers seeing classroom engagement. This multi-perspective assessment provides a more comprehensive understanding of outcomes than any single viewpoint could offer, highlighting both achievements and areas requiring continued development.

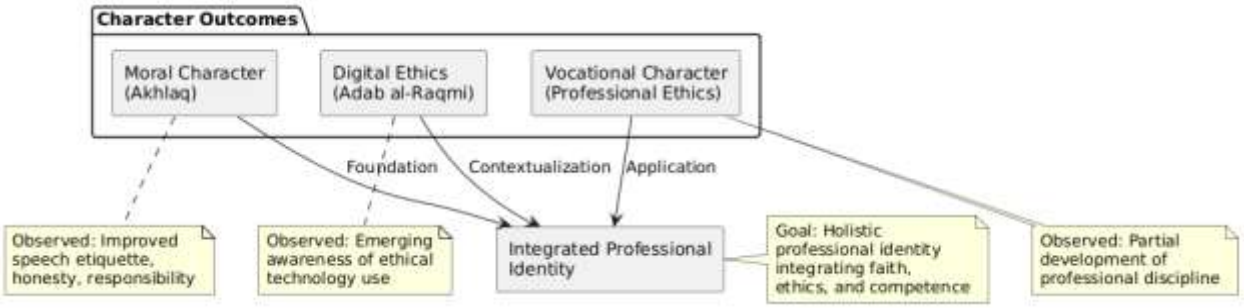


Figure 3. Outcomes Framework: Three-Dimensional Character Development

This diagram presents the three-dimensional framework of character outcomes, showing how moral character, digital ethics, and vocational character converge toward an integrated professional identity. The visual representation emphasizes that these dimensions are not separate outcomes but interconnected aspects of holistic character development. Each dimension contributes uniquely while reinforcing the others, with moral character providing the foundation, digital ethics offering contextualization, and vocational character enabling practical application. The framework clarifies that the ultimate goal is not merely developing isolated competencies but forming integrated professional identities that seamlessly blend faith, ethics, and technical competence.

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DISCUSSION

The findings regarding antecedent limitations align with recent critiques of PAI curriculum implementation in vocational settings, highlighting a critical disconnect between normative materials and digital realities. This study found that while PAI documents contain foundational Islamic values, they lack explicit contextualization with digital scenarios, a gap corroborated by Murniasih (2025) and Yafithufail (2025), who argue that PAI must evolve beyond traditional instruction to address the specific moral demands of technology-driven environments. Furthermore, the underdeveloped contextual pedagogical readiness of PAI teachers mirrors the challenges identified by Montiel et al (2019), Rahmawati et al (2022), and Rizk & Hillier (2022), who emphasize that without understanding students' daily technological engagement, teachers struggle to produce relevant ethical examples. This contrasts with studies like Mateka & Yahiji (2026) and Sari (2024), which often evaluate PAI based on administrative completeness rather than contextual relevance, thereby highlighting the necessity of shifting the evaluative focus from mere document presence to actual document applicability in vocational contexts.

In terms of transactional processes, the study reveals that the contextualization of Islamic values remains episodic rather than systematically designed, a finding that both supports and extends current literature. The successful but sporadic linking of concepts like *tabayyun* to information literacy or *amanah* to data security resonates with Haryanti (2025) assertion that digital literacy ethics can be effectively embedded in PAI learning to activate student engagement. However, the identified absence of structured collaboration between PAI and vocational teachers represents a critical structural deficit. While Areola (2023) demonstrated the efficacy of Stake's model in identifying such programmatic disconnects in general education, this study specifies that in vocational-digital contexts, the lack of cross-disciplinary synergy directly hinders the translation of abstract religious principles into concrete laboratory ethics, necessitating institutionalized collaborative frameworks rather than relying solely on individual teacher initiative.

Regarding program outcomes, the emergence of *adab al-raqmiy* (digital ethics) as a distinct and evaluable dimension of student character development provides a significant theoretical contribution to the field. The observed improvements in students' awareness of data privacy and responsible technology use strongly support the propositions of Jones (2025), Sartika et al (2025), and Wani et al (2025), who advocate for PAI as a foundational framework for preventing cyber misconduct and fostering digital responsibility. However, the finding that these outcomes remain uneven and primarily cognitive rather than fully internalized behavioral patterns introduces a nuanced divergence from overly optimistic evaluations. This suggests that while PAI

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can successfully initiate moral awareness, achieving consistent vocational character requires more than classroom instruction; it demands the continuous reinforcement of religious culture within the technical laboratory environment, a dimension often overlooked in broader, non-vocational PAI evaluations.

The multi-stakeholder assessment uncovered both productive convergence and critical divergence, strongly validating the application of Stakeholder Theory in educational evaluation. All groups converged on the urgency of digital ethics and discipline, aligning with Macabrey et al. (2024), who found that inclusive stakeholder representation uncovers shared programmatic concerns that purely administrative evaluations systematically miss. Conversely, the divergence at the transactional level—where PAI teachers perceived their integration efforts as adequate while students found them insufficiently concrete—highlights a classic congruence gap in Stake's framework. This tension underscores Babu et al (2025), Nieminen & Lahdenperä (2024), and Omodan (2023) argument that epistemic justice in evaluation requires actively reconciling the differing lived experiences of educators and learners, rather than privileging the instructor's intended curriculum over the student's observed reality.

Ultimately, this study demonstrates that Stake's Responsive Evaluation Model is uniquely suited for capturing the complexity of PAI in vocational-digital settings, extending far beyond the limitations of conventional administrative audits. While prior applications of Stake's Countenance Model in Indonesian education have often focused on general school programs (Areola, 2023), this research proves its efficacy in diagnosing the specific intended-versus-observed gaps in technology-intensive curricula. By centering stakeholder claims and concerns, the evaluation moves beyond mere compliance checking to generate actionable, contextually grounded recommendations. This approach not only advances the theoretical conceptualization of *adab al-raqmiy* as a measurable outcome but also provides a practical, responsive blueprint for schools aiming to harmonize Islamic moral education with the rigorous ethical demands of modern vocational training.

CONCLUSION

This study demonstrates that applying Robert E. Stake's Responsive Evaluation Model through a multi-stakeholder lens provides a comprehensive and nuanced understanding of Islamic Religious Education (PAI) in vocational-digital contexts, moving far beyond superficial administrative audits. The findings reveal that while the intended PAI program establishes a foundational moral ecology, significant gaps exist between intended and observed realities,

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particularly regarding the lack of contextually grounded instructional documents, the episodic rather than systematic integration of digital values during classroom transactions, and the uneven development of adab al-raqmiy (digital ethics) as a measurable outcome. By centering the claims, concerns, and experiences of students, teachers, school leaders, and parents, this evaluation identifies the intended-observed congruence gap as the primary catalyst for meaningful programmatic improvement. Ultimately, this research contributes a theoretically grounded, stakeholder-derived framework that validates digital ethics as a legitimate PAI outcome and offers actionable, contextually responsive recommendations—such as cross-teacher collaboration and digital case-based pedagogy—to effectively harmonize Islamic moral education with the rigorous ethical demands of modern Computer and Network Engineering (TKJ) training.

FUTURE DIRECTIONS

Future research should expand upon these findings by exploring the application of Stake's Responsive Evaluation Model across diverse vocational specializations beyond Computer and Network Engineering, such as multimedia or automotive programs, to assess the broader generalizability of digital ethics integration in Islamic Religious Education. Additionally, there is a critical need for the development and psychometric validation of standardized digital ethics assessment instruments grounded in Islamic values, which would enable more robust and quantifiable tracking of *adab al-raqmiy* (digital ethics) outcomes. Finally, longitudinal studies investigating the efficacy of structured school–family digital partnership models are highly recommended to provide deeper empirical insights into how multi-stakeholder collaboration can sustainably reinforce responsible technology use and vocational character development beyond the classroom environment.

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