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RE-HUMANIZING DIGITAL EDUCATION THROUGH THE INTEGRATION OF ISLAMIC VALUES AND NATURE-BASED PEDAGOGY IN INDONESIA

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Abstract

This study addresses the dehumanizing effects of modern digital-age education by examining how Nature Schools (Sekolah Alam) in Indonesia integrate Islamic values with nature-based pedagogy to foster holistic human development. Employing a qualitative multi-site case study design, the research investigated three distinct Nature Schools in East Kalimantan: Balikpapan, Samarinda, and Sangatta. Data were collected through participatory observation, in-depth interviews with principals, teachers, and parents, and documentary analysis of curricula and student portfolios. Analysis followed the interactive model of Miles, Huberman, and Saldaña. The findings reveal three pivotal outcomes. First, the schools successfully deconstruct the science-religion dichotomy by positioning nature as a spiritual laboratory (Ayat Kauniyah) within an integrative curriculum. Second, the internalization of values follows a "Triadic Cycle" comprising transformation (cognitive framing), transaction (dialogical role-modeling), and trans-internalization (reflexive habituation). Third, while this model effectively nurtures holistic student character (Insan Kamil) that values process over mere academic results, a significant external barrier termed the "Laundry Mentality" among parents—a transactional delegation of moral education to the school—creates cognitive dissonance in students and hinders consistent value embodiment. The study concludes that the synthesis of nature-based pedagogy and Islamic values presents a viable, non-dichotomous model for re-humanizing education. However, its success is contingent upon overcoming sociological barriers through active family-school partnership, suggesting that educational transformation must extend beyond school walls to include the domestic ecosystem.

Keywords

Character Building, Islamic Pedagogy, Humanist-Religious Education, Nature School, Triadic Internalization.

INTRODUCTION

Contemporary education is currently facing a "crisis of meaning." While the 21st-century curriculum heavily emphasizes cognitive competence to meet market demands, it often inadvertently neglects the spiritual and moral dimensions of human development. Ideally, education should be a conscious effort to humanize humans. However, as criticized by Giroux (2020), modern schooling has succumbed to a "pedagogy of repression" where students are trapped in a cycle of qualification, ignoring the crucial process of subjectification the becoming of a person (Biesta, 2020). This pedagogical reductionism produces individuals who are intellectually advanced but morally ambiguous. In the Indonesian context, this crisis is exacerbated by the persistent dichotomy between secular and religious sciences. Suyatno et al. (2020) highlight that bridging these domains remains a complex strategic challenge. Consequently, the integration of values often occurs superficially, failing to form a cohesive worldview (Azra & Azra, 2019).

To situate this research within the current scholarly conversation, several key studies highlight the multifaceted challenges in addressing this crisis. While Kuo et al. (2019) offer empirical evidence that nature-based pedagogy can restore cognitive well-being, Chawla (2020) reinforces that childhood connection with nature is fundamental for long-term psychological resilience. However, a critical gap remains. Ardoin and Bowers (2020) note that most nature-based education research is dominated by Western perspectives focusing on environmental ethics. Conversely, Tan (2012) emphasizes that a mere return to nature is insufficient without a synthesis that bridges Islamic spirituality with critical humanism. Without this synthesis, religious education remains confined to textual transmission, lacking contextual relevance.

The practical application of these holistic values frequently encounters significant sociological barriers. A major obstacle is the disconnect between school teachings and home realities. As Hornby & Lafaele (2011) note, barriers to parental involvement severely disrupt educational continuity. In the context of this study, this barrier manifests as the "Laundry Mentality" a mindset where parents passively delegate all character-building responsibilities to the school. Aligning with Goodall & Montgomery (2014) concept of the "parental engagement gap," this lack of moral reinforcement at home leaves students ethically confused, effectively stalling the value internalization process.

This internalization crisis is acutely exacerbated by the unique challenges of the digital era, particularly in rapidly developing regions like East Kalimantan. Empirical field data gathered from

three nature-based schools (SAB, SAS, and SATA) reveal a concerning pedagogical paradox. Rather than merely enhancing learning, unchecked digital access among students has fostered "digital dehumanization," characterized by declining empathy, individualistic behaviors, and a transactional approach to education. Field observations detail this shift: at SAB, students increasingly prioritize their devices over direct physical interaction with the forest ecosystem. Meanwhile, SAS and SATA report rising incidents of cyber-related social friction, indicating that technology has become a psychological barrier detaching students from their ecological grounding.

To address this digital disruption, the management of the three institutions formulated specific policies. SAB enacted "Digital Forest Journaling," which restricts tablet use strictly to biodiversity documentation. SAS introduced a binding "Screen-Time Contract" between the school, students, and parents to combat negative social impacts. SATA developed a character-monitoring application to track daily worship and behavioral practices. However, field evaluations highlight a persistent friction: permissive technological environments at home continuously undermine these institutional efforts. This digital permissiveness directly compounds the aforementioned "Laundry Mentality," creating a critical gap in character education.

As a solution to this digital dehumanization and policy friction, this study proposes integrating Islamic values as the core ethical compass within nature-based pedagogy. Regulating technology is clearly insufficient; digital tools must be reconstructed philosophically as mediums to uncover *Ayat Kauniyah* (divine signs in nature). By internalizing the concepts of *Khalifah* (environmental stewardship) and *Insan Kamil* (the holistic human), the schools teach students to utilize digital tools for planetary and social care. This synthesis aims to re-humanize education by reconnecting students' intellect (*'aqil*) and ethics (*adab*) with the natural world, ensuring that digital competence enhances their spiritual essence. To understand the urgency of this proposed synthesis, it is necessary to examine the current scholarly landscape.

A systematic review of recent literature (2019–2024) reveals significant yet fragmented advancements across the core variables of this study. Research on digital education humanization has largely focused on technological integration and well-being frameworks (Naibaho et al., 2024), often overlooking spiritual dimensions. Concurrently, studies on Islamic values in education, such as those integrating ethics into STEM curricula (Judijanto & Yusniar, 2025), demonstrate success within formal religious institutions but remain disconnected from nature-based and digital learning contexts. In the realm of nature-based pedagogy, empirical work like Chen et

al. (2020) forest school research confirms its benefits for ecological empathy, yet it operates within a secular, Western paradigm. Meanwhile, innovative models like Eco-Islam in *pesantren* (Hermawansyah, 2025; Pujianto et al., 2021) effectively link theology to sustainability but do not engage with digital pedagogy or urban educational settings. Furthermore, while sociological studies highlight the critical role of parental engagement (Goodall & Montgomery, 2014), they have not examined how specific transactional mindsets disrupt value internalization in holistic, integrative school models. The predominant gap, therefore, is the absence of an empirically grounded framework that synthesizes these three strands—digital-era humanization, Islamic spirituality, and nature-based learning—into a coherent pedagogical process, particularly within the unique socio-ecological context of Indonesia's developing regions.

This study synthesizes three primary theoretical pillars to re-humanize digital education. First, (Freire, 2024) critical pedagogy provides the framework for restoring human agency against dehumanizing digital "banking models." Second, Al-Attas (1991) concept of *ta'dib* supplies the metaphysical-ethical foundation, aiming for the development of the *insan kamil* (the complete person). Third, Sobel (2004) place-based education anchors the methodology in ecological reality. The study's novelty lies in this tripartite synthesis, unifying critical humanization, spiritual ethics, and ecological methodology, into a cohesive model. Furthermore, it introduces the "Triadic Internalization Cycle" and identifies the "Laundry Mentality" as a critical sociological barrier to value-based education.

Building on these frameworks, this research analyzes the mechanisms of internalizing humanist-religious values across three Nature Schools in East Kalimantan. The study aims to demonstrate how this integrative model mediates the dehumanizing effects of the digital era. Theoretically, it validates the "Triadic Internalization Cycle" as a novel framework bridging the dichotomy between religious and secular sciences, enriching theories by Muhaimin, Berger, and Luckmann. Pragmatically, it offers diagnostic tools for educators to overcome the "Laundry Mentality," fostering genuine school-family partnerships. Ultimately, this research provides an evidence-based framework for cultivating ethically grounded individuals (*Insan Kamil*) capable of thriving in an increasingly digital world.

METHOD

This study employs a qualitative approach with a multi-site case study design to explore the phenomenon of value internalization in a real-life context, as recommended by Yin, K., Robert, and Campbell, T. Donald (2018) for investigating contemporary phenomena within their real-world context. The multi-site design was chosen to allow for cross-case analysis, enabling the identification of common patterns and unique variations across different settings (Creswell & Plano Clark, 2018). The research was conducted at three prominent Nature Schools (*Sekolah Alam*) in East Kalimantan: *Sekolah Alam Balikpapan*, *Samarinda*, and *Sangatta*. These sites were selected using purposive sampling (Patton, 2003) based on their established reputation in integrating nature-based curriculum with Islamic values within urban and industrial environments.

Data collection was conducted over a six-month period from August 1, 2024, to January 31, 2025. To ensure methodological rigor and accurately capture the specific socio-ecological dynamics of each site, the researcher performed intensive participatory observations, in-depth interviews, and documentation analysis across the three locations sequentially. Primary field data collection began at Sekolah Alam Balikpapan (SAB) from August 1 to September 25, 2024, with observations specifically focused on the implementation of the "Spider Web Curriculum" and the utilization of digital tools within the urban forest laboratory. Subsequently, the research continued at Sekolah Alam Samarinda (SAS) from October 1 to November 25, 2024, during which the researcher was actively immersed in the *Halaqah* system and student leadership projects. The final phase of fieldwork was conducted at Sekolah Alam Sangatta (SATA) from December 1, 2024, to January 31, 2025, involving intensive observations of "Market Day" activities and the integration of entrepreneurship values within a mining-industry context. To establish the trustworthiness of the data across these distinct timelines, the study applied source and method triangulation as proposed by Lincoln & Guba (1985), ensuring that the qualitative findings are credible, confirmable, and firmly grounded in real-time empirical evidence.

The collected data were analyzed using the interactive model proposed by Miles et al. (2014), which consists of three concurrent flows of activity: data condensation, data display, and conclusion drawing. In the cross-case analysis phase, findings from each site were synthesized. The conceptual framework guiding this study is visualized in Figure 1.

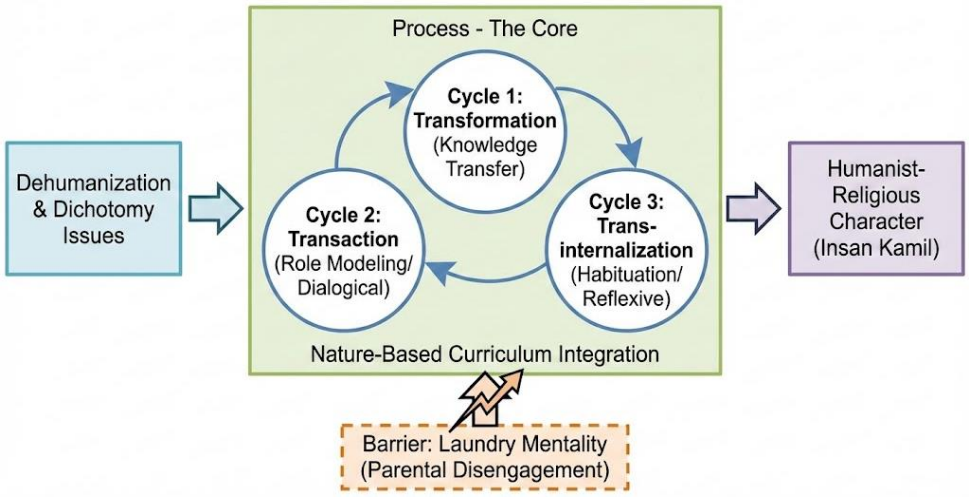

Figure 1. Conceptual Framework of Triadic Internalization in Nature Schools

As illustrated in Figure 1, the research framework begins with the input problem of educational dehumanization and the dichotomy of sciences. These inputs flow into the core process: the "Triadic Internalization Cycle," which consists of transformation, transaction, and trans-internalization embedded within the nature-based curriculum. However, this process is critically intersected by the sociological barrier identified as the "Laundry Mentality" (parental disengagement). The interaction between the cycle and this barrier ultimately determines the output: the formation of the *Insan Kamil* (Humanist-Religious) character.

FINDINGS AND DISCUSSION

Findings

This study reveals three major thematic findings regarding the internalization of humanist-religious values in *Sekolah Alam* (Nature Schools). The data were obtained through participant observations, in-depth interviews with principals and teachers, and documentation analysis across three sites: *Sekolah Alam Balikpapan* (SAB), *Sekolah Alam Samarinda* (SAS), and *Sekolah Alam Sangatta* (SATA). To provide a comprehensive overview of the research results, the summary of the three major themes is presented in Table 1.

Table 1. Summary of Major Research Findings

No	Major Theme	Key Findings / Description	Empirical Implication
1	Curriculum Structure	The Non-Dichotomous Curriculum Integration of the "Sacred" (Religion) and the "Profane" (Science/Nature). Nature is viewed as the *Grand Laboratory* of God (*Ayat Kauniyah*).	Deconstruction of the dichotomy between general sciences and religious education.
2	Internalization Process	The Triadic Internalization Cycle A systemic cycle consisting of three stages:	Values shift from mere knowledge to embodied

			- Transformation (Cognitive framing) - Transaction (Egalitarian role-modeling) - Trans-internalization (Reflexive habituation).	character (*Shakhsiyah*) through consistent interaction and habituation.
3	Context & Barriers		The Sociological Barrier While internal support (nature ecosystem) is strong, there is a critical external barrier identified as the "Laundry Mentality"—a transactional mindset of parents who delegate moral education entirely to the school.	The formation of *Insan Kamil* is hindered by value discontinuity between school and home (Cognitive Dissonance).

Source: Processed Research Data (2024)

Based on the summary in Table 1, the following sections will elaborate on each finding in detail, supported by empirical evidence from the three research sites.

The Non-Dichotomous Curriculum Structure

Field observations across SAB, SAS, and SATA demonstrate how these schools eliminate the traditional separation between general science and Islamic studies. Instead of treating religious subjects as separate memorization tasks, all three schools use the natural environment as their primary learning laboratory. The principals and teachers explicitly treat nature as *Ayat Kauniyah* (the universe as God's signs), giving it the same educational weight as the Qur'an (*Ayat Qauliyah*).

At Sekolah Alam Balikpapan (SAB), teachers apply a model called the "Spider Web Curriculum." During an observation in the "Green Lab" class, the researcher noted that the teacher did not explain photosynthesis merely as a biological process. Instead, the teacher guided students to link the process of plants producing food directly to the concept of God as the Provider (*Ar-Razzaq*). The field data shows that science is used to prove theological concepts, and theology is used as the ethical boundary for studying science.

Sekolah Alam Samarinda (SAS) organizes its curriculum around four specific pillars: Al-Qur'an and Hadith, Morality (*Akidah Akhlak*), Leadership, and Academic Logic. Field data reveal that teachers use Qur'anic verses not just for recitation, but as a starting point to train students' critical thinking. For example, during leadership projects, students are asked to solve specific social or environmental problems around the school by applying the principles of *tawhid* (the oneness of God).

Given its location in a mining city, Sekolah Alam Sangatta (SATA) strongly emphasizes the "Entrepreneurship" pillar to respond to the local industrial context. During the "Market Day" observation, the researcher found that teachers do not grade students solely on their sales profits. The school's official assessment rubric actually assigns higher scores to character variables,

specifically honesty (*siddiq*) and trustworthiness (*amanah*) during transactions. The teachers explicitly teach students that trading is a direct form of worship (*ibadah*).

A comparison of the curriculum structures recorded from the field is summarized in the following table.

Table 2. Comparison of Humanist-Religious Curriculum Concepts

No	Site	Key Curriculum Pillars/Aspects	Integration Strategy
1	Sekolah Alam Balikpapan (SAB)	**3 Aspects:** a. Nature-Based Integration b. Experience-Based Learning c. 3. Character Development	Values are integrated through "Spider Web" learning themes where nature serves as the ayat *kauniyah* (universe verses) of God.
2	Sekolah Alam Samarinda (SAS)	**4 Pillars:** a. Al-Qur'an & Hadith b. Akidah Akhlak (Morality) c. Leadership d. 4. Academic Logic	Religious texts are not just memorized but used as the logical basis for scientific inquiry and leadership projects.
3	Sekolah Alam Sangatta (SATA)	**4 Pillars:** a. Quranic Character b. Active Learning c. Leadership d. 4. Entrepreneurship	Emphasis on *active learning* where entrepreneurship and leadership are framed as forms of worship (*ibadah*).

Source: Processed Field Data (2024)

These three locations show a strong common thread. First, the curriculum is not just a list of subjects, but an ecosystem of values. Second, the success of internalizing values lies in removing barriers between the classroom and the garden, between biology teachers and religious teachers, and between learning and worship. Finally, by physically moving the learning process out of conventional classrooms and into open gardens or markets, the schools successfully merge scientific skills with religious practices in a practical, everyday setting.

The Triadic Cycle of Internalization Process

Field data from SAB, SAS, and SATA reveal that teachers do not teach character values through standard classroom lectures. Instead, the researcher observed a practical, three-step daily routine that the schools use to instill character. This process operates through what is termed the "Triadic Internalization Cycle," consisting of Transformation, Transaction, and Trans-internalization.

First, Transformation (Cognitive Introduction. In this initial stage, teachers introduce specific values to students before any physical activity begins. At SAB, the researcher observed this during the daily "Morning Circle." Instead of lecturing, teachers sit in a circle with students and discuss why

a value, such as honesty, is important for that day's activities. At SAS, this introduction happens during the *Halaqah*. Here, teachers do not just ask students to memorize Qur'anic verses; they explicitly explain how those verses connect to real-world social situations, planting the foundational knowledge in the students' minds.

Second, Transaction (Direct Role-Modeling and Interaction). This second stage is where these nature schools significantly differ from conventional schools. Values are not just spoken; they are demonstrated. At SATA, the researcher observed teachers working physically alongside students—digging soil, gardening, and cleaning the schoolyard. The teachers act as direct role models (*Uswah Hasanah*). Students adopt these moral values because they see their teachers doing the exact same hard work. Furthermore, when students argue or fight, teachers do not immediately issue punishments. Instead, they bring the students to a "peace table" to talk and resolve the conflict, turning a problem into a direct practice of tolerance and responsibility.

Third, Trans-internalization (Independent Habituation). The final stage occurs when students practice these values independently, without constant teacher supervision. The schools force students out of their comfort zones through programs like "Solo Camp" in the forest or direct internships in traditional markets. To verify this stage, the researcher analyzed the students' personal reflection journals written after the *Mabit* (overnight prayer program). The journal entries revealed a clear shift: students stated they woke up for night prayers out of personal awareness and a desire to connect with God, rather than out of fear of the teachers. At this point, the teachers step back and let the students lead themselves. The operational details of this three-stage cycle, as recorded during the fieldwork, are outlined in the table below.

Table 3. Matrix of Value Internalization Activities

No	Stage	Pedagogical Focus	Operational Activities Observed	Psychological Mechanism
1	Transformation	Cognitive Transfer: Introducing vocabulary of values & theological concepts.	*Morning Circle* (SAB), *Halaqah Quran* (SAS), Thematic Briefing (SATA).	Framing: Building knowledge and rationale behind the values.
2	Transaction	Social Interaction: Value exchange through role modeling (*Uswah*) & dialogue.	Collaborative gardening, Conflict resolution dialogue, Trust-building Outbound.	Validation: Values are validated through the teacher's example and peer interaction.
3	Trans-internalization	Personal Embodiment: Habituation &	*Solo Camp* survival, Student-led charity projects, *Mabit* (Night	Internalization: Shift from external obedience to internal conscience

No	Stage	Pedagogical Focus	Operational Activities Observed	Psychological Mechanism
		reflexive ownership of values.	prayer).	(*Shakhsiyah*).

Source: Observation and Interview Analysis (2024)

Table 3 above illustrates that the internalization process is not a single event, but a continuous cycle. As detailed in the "Psychological Mechanism" column, students evolve from simply knowing the values to validating them through social interaction and finally adopting them as their personal identity. However, field observations confirm that character education frequently fails in conventional schools because it stalls at the very first stage: transformation through classroom lecturing. The empirical data demonstrate that without physical role-modeling (transaction) and the necessary space for students to practice independently (trans-internalization), moral values remain abstract theories rather than lived behaviors. This triadic cycle is an unbroken chain. If teachers merely instruct without physically participating, or if they constantly supervise without allowing independent reflection, the cycle breaks and students revert to performing good deeds only out of fear of punishment or to seek good grades.

Furthermore, the findings reveal that the outdoor environment serves as the ultimate catalyst for this internalization cycle to succeed. The unpredictability of nature—such as sudden rain, muddy terrain, and the physical exhaustion experienced during outdoor camps—naturally forces students into situations that demand genuine teamwork, patience, and resilience. Nature acts as an active, unyielding teacher that organically accelerates the trans-internalization process. This dynamic provides a practical, high-stakes learning laboratory that forces students to practice their character in real-time, an experience that is nearly impossible to replicate inside the comfortable, predictable confines of a standard walled classroom.

Character Output and Sociological Barriers

Despite the successful curriculum and daily routines at SAB, SAS, and SATA, Focus Group Discussions (FGDs) with teachers revealed a major external frustration. Teachers across the three schools frequently complained about the severe lack of character reinforcement at home. Based on the interview data, this study identifies a specific pattern among parents, termed the "Laundry Mentality." Because these nature schools are generally expensive, they attract urban middle-to-upper-class families with highly busy professional parents. Field data shows that these parents often treat the school exactly like a laundry service: they pay high tuition fees, drop off their children, and expect the school to "wash" their character and return them as morally perfect individuals, without

the parents putting in any effort at home.

This lack of parental involvement directly harms the students, creating a severe double standard. During field observations, the researcher noted a sharp contrast in student behavior. At school, students strictly followed the rules: they maintained environmental cleanliness, cared for plants, and operated entirely without digital gadgets. However, teachers reported that once these students returned home, their busy parents immediately handed them smartphones to keep them occupied and spoiled them with consumptive facilities. This double standard confuses the students. The habits they painstakingly build in the forest or garden are quickly erased when they go home, effectively breaking the trans-internalization cycle discussed in the previous section.

To fully understand these contextual dynamics, the researcher mapped the specific supporting and inhibiting factors encountered during the fieldwork across the three schools. The findings are summarized in Table 4 below.

Table 4. Constellation of Supporting and Inhibiting Factors across Sites

No	Factor Category	Sekolah Alam Balikpapan (SAB)	Sekolah Alam Samarinda (SAS)	Sekolah Alam Sangatta (SATA)	Synthesis (Strategic Analysis)
1	Internal Supports	Extensive and lush urban forest environment as a primary lab. High teacher militancy.	Strong kinship-based school culture. Flexible curriculum adaptation.	Robust foundation support and extensive field practice facilities.	Key Factors: 1. Supportive Natural Ecosystem (Nature as Lab). 2. Teacher Commitment (Understanding the Nature School philosophy).
2	External Supports	High trust from the upper-middle-class segment. Strong community networking.	Endorsement from local religious leaders (*Ulama*) and community figures.	Corporate support (CSR) due to the location in the mining area.	Synergy: Parental engagement and external partnership support are crucial for sustainability.
3	Inhibiting Factors (Barriers)	High operational costs (expensive tuition/SPP), creating exclusivity.	Limited land availability in the dense urban area.	Difficulty in recruiting teachers who meet "Nature School" standards in remote areas.	Major Challenges: 1. Cost: Perception of exclusivity. 2. Parental Consistency: Discrepancy between home and school parenting (The "Laundry Mentality"). 3. Regulation: Friction with rigid bureaucratic administration.

Source: Cross-Case SWOT Analysis (2024)

The field data presented in Table 4 highlights that having a physical forest or garden is useless without dedicated teachers. At all three sites, the teachers act more like educational activists than ordinary employees. A prime example was observed at SATA, where teachers actively lobbied local mining companies for Corporate Social Responsibility (CSR) funds. The teachers cleverly used these funds to build practical learning modules that match the local mining context, while still teaching students to remain critical of environmental damage. This combination of natural spaces and teacher creativity is the school's strongest internal asset.

This phenomenon refers to the attitude of parents, especially those from the middle to upper class, who are the main market for these schools (see the External Supports SAB column), who view education transactionally. They pay high fees (SPP) with the expectation that the school will "clean up" their children's character, without any willingness to participate in the process at home.

This analysis is reinforced by field findings where students experience cognitive dissonance. At school, they are taught simplicity, but at home, they are spoiled with a consumptive lifestyle. This confirms that the biggest challenge for Sekolah Alam is not the curriculum or facilities, but aligning parenting patterns with parents. In conclusion, Table 3 validates that Sekolah Alam has a solid internal foundation but faces serious external vulnerabilities. The success of producing Insan Kamil (perfect human beings) depends heavily on the school's ability to navigate these obstacles, particularly in changing parents' mindset from "consumers" to "partners".

Discussion

This section synthesizes the empirical findings derived from the three research sites— *School Alam Balikpapan* (SAB), *Sekolah Alam Samarinda* (SAS), and *Sekolah Alam Sangatta* (SATA)—to construct a theoretical explanation for the mechanism of value internalization in nature-based Islamic education. By engaging in a dialectical discourse with existing literature, this discussion highlights three critical dimensions: the theoretical novelty of the internalization model, the ecological catalysts required for its operation, and the sociological barriers that threaten its efficacy.

Theoretical Construction: The Nature-Based Integrative Cycle Model

The primary theoretical contribution of this study is the formulation of the "Nature-Based Integrative Cycle Model." While previous studies on Islamic education have largely focused on curriculum content (Azra & Azra, 2019; Halstead, 2004) or institutional management (Tan, 2012), this study shifts the focus towards the processual dynamics of how abstract values are embodied into concrete character

This proposition offers a structural counter-narrative to the dualistic educational systems that have historically separated "religious sciences" from "secular sciences," a crisis of epistemology critiqued by Al Faruqi & Al Faruqi (1986) and Al-Attas (1980). In the observed Nature Schools, the curriculum does not merely "add" religious verses to science subjects but fundamentally reconstructs the ontology of learning. Nature is viewed through the lens of *Ayat Kauniyah* (signs of God in the universe), making scientific inquiry a form of spiritual devotion (*Ibadah*).

The second and most distinctive stage is Transaction. Here, knowledge is validated through direct interaction with the natural ecosystem. This stage resonates with Kolb's (1984) Experiential Learning Cycle (Concrete Experience - Reflective Observation). However, this study extends Kolb's secular framework by adding a theological dimension. When students at SATA engage in farming or market days, they are not just studying biology or economics; they are "transacting" with God's laws (*Sunnatullah*). This implies that in Nature Schools, the environment acts as a "Third Teacher." (Strong-Wilson & Ellis, 2007), providing tangible validation of classroom values. Furthermore, the teacher's role shifts from instructor to role model (*Uswah*), validating with Bandura (1997) Social Learning Theory, which posits that observational learning is most potent when the model possesses high credibility and empathy.

The peak of the cycle is Trans-internalization, where values settle into the subconscious as *Habit* or *Shakhsiyah* (Islamic Personality). Through rigorous habituation activities like *Solo Camp* and *Mabit* (Night of Faith), students move from Piaget's (1964) "heteronomous morality" (obeying rules to avoid punishment) to "autonomous morality" (acting based on internal conscience). This stage mirrors Al-Ghazali's concept of *Riyadah al-Nafs* (disciplining the soul), where character is forged not through intellectual understanding alone but through repetitive bodily practice (akin to Aristotle's *Phronesis*). The dashed arrow in the model returning to the top signifies that this is a lifelong learning process (Dewey, 1938), where the cycle repeats with increasing complexity as the child matures.

The Ecological Catalysts: Nature as the "Honest Laboratory"

The theoretical model of the "Integrative Cycle" previously described does not operate in a vacuum; it requires a specific ecological niche to function effectively. This study argues that the success of value internalization in Nature Schools is driven by two deep-structure catalysts: the "Honest Laboratory," which facilitates Eco-Psychological Restoration, and a "Threat-Free Pedagogy," which fosters authentic social competence. Without these catalysts, the curriculum remains a mere document, devoid of transformative power.

The findings reveal that nature acts as an "Honest Laboratory" providing immediate, unmediated feedback. This goes beyond simple "outdoor learning." The efficacy of this mechanism can be explained through Kaplan (1995) Attention Restoration Theory (ART). The dense, green environments of SAB, SAS, and SATA provide "soft fascination," which allows students to recover from *Directed Attention Fatigue* caused by modern urban stimuli. When attention is restored, the cognitive capacity for moral reflection increases. This supports Salimi et al. (2021b), whose study on eco-literacy confirms that direct immersion in nature is superior to textbook learning for instilling environmental ethics. Furthermore, Saputra et al. (2023) demonstrate that this ecological intelligence enhances language learning, suggesting a cognitive synergy. By engaging with the "Honest Laboratory," students are not merely learning *about* nature but are engaging in a "discourse of nature" (Meghdari & Yousefi, 2022), where the natural laws (*Sunnatullah*) are internalized as personal discipline. This validates Jeronen et al. (2009), who found that nature schools effectively bridge the gap between abstract knowledge and concrete moral action.

The second catalyst is the "Threat-Free Environment." The study found that the *Trans-internalization* phase fails in high-anxiety environments. The egalitarian teacher-student relationship observed acts as "Scaffolding" (Wood et al., 1976) within the student's *Zone of Proximal Development* (ZPD). Teachers in these schools function not as authoritarian instructors but as facilitators of "Child-Friendly Schools" (Citrawati et al., 2024). This approach fulfills Maslow's (1943) safety needs, creating a psychological condition where "students' freedom" (Supriyoko et al., 2022) leads to genuine, not forced, character development. This environment is critical for developing social skills. As noted by Salimi et al. (2021a), the open interaction in Nature Schools significantly enhances communication and cooperation skills, which are components of the *Insan Kamil* profile. Thus, the "Threat-Free" ecology is not just a preference but a *prerequisite* for deep internalization.

The Sociological Barrier: The "Laundry Mentality"

While the internal pedagogical model is theoretically sound, this study uncovers a significant rupture in its implementation. This sub-section critically analyzes the "Laundry Mentality" —a phenomenon where parents outsource moral education to the school, not merely as parental negligence, but as a structural byproduct of the Commodification of Education in the neoliberal era. This barrier represents the most significant threat to the sustainability of value internalization.

The "Laundry Mentality" describes parents who outsource moral education to schools, treating character as a commodity to be purchased. This phenomenon is exacerbated by the

marketing of Nature Schools. Ekawardhani et al. (2023) highlight how digital promotion frames Nature Schools as a "Green Lifestyle" product. This branding attracts parents who wish to consume the *image* of a "natural/pious family" without engaging in the *process*. This aligns with Stephen Ball's (2003) Critique of the "education market," where parents become "consumers" rather than "partners." The "Laundry Mentality" is a manifestation of Instrumental Parenting, where the school is viewed as a service provider (like a laundry service for dirty clothes/character), creating a transactional relationship that contradicts the transformational goals of Islamic education (Biesta, 2015; Tan, 2012)

Sociologically, this barrier can be explained through Bourdieu's (1977) concept of *Habitus* bourdand Bronfenbrenner's (1979) Ecological Systems Theory. The Nature School attempts to install a *habit* of simplicity and stewardship. However, the home environment often cultivates a *habitus* of consumerism and digital dependency. Bronfenbrenner argues that development occurs in the *Mesosystem* the interaction between the *Microsystem* (Home) and *Exosystem* (School). The "Laundry Mentality" represents a rupture in the Mesosystem. The value discontinuity creates Cognitive Dissonance (Festinger, 1957) in students, who become "cultural amphibians"—pious at school, hedonistic at home. This finding fundamentally challenges the "Tri-Center of Education" (Ki Hajar Dewantara), suggesting that in the modern urban context, the synergy between family and school has collapsed. Without addressing this sociological fracture through intensive Parenting Education (Desforges & Abouchaar, n.d.; Epstein, 1991), the "Nature-Based Integrative Cycle" remains incomplete

In summary, the internalization of humanist-religious values in the observed Nature Schools is a complex interplay between a robust internal pedagogical cycle and challenging external sociological factors. The Nature-Based Integrative Cycle Model offers a promising framework for deconstructing the secular-religious dichotomy, supported by the Honest Laboratory of nature. However, the efficacy of this model is contingent upon resolving the Sociological Barrier of the "Laundry Mentality." This implies that future iterations of Islamic education must transcend the school compound, integrating the family unit into the pedagogical ecosystem to ensure the continuity of value formation.

CONCLUSION

This study concludes that the integration of Islamic values within nature-based pedagogy provides a definitive framework for re-humanizing education in the digital era. Based on the multi-

site analysis at SAB, SAS, and SATA, three pivotal conclusions are drawn. First, these schools successfully deconstruct the science-religion dichotomy by implementing an integrative curriculum that positions the natural environment as a spiritual laboratory (*Ayat Kauniyah*). This ensures that scientific competence and spiritual devotion are developed as a unified entity rather than separate subjects.

Second, the mechanism of value internalization is not a linear instructional process but follows a systematic "Triadic Cycle" consisting of transformation (cognitive framing), transaction (dialogical role-modeling), and trans-internalization (reflexive habituation). The field data confirms that the active involvement of teachers as role models in nature is the primary catalyst that moves character values from abstract concepts into lived identities.

Third, the research identifies that the greatest threat to the sustainability of this holistic character building is the "Laundry Mentality" among parents. This transactional delegation of moral responsibility, common among the urban middle class, creates a significant gap between school and home environments. Ultimately, the success of producing an *Insan Kamil* (holistic human being) in the digital age depends not only on the school's internal system but on its ability to shift the role of parents from passive consumers of educational services into active partners in the character-building process.

REFERENCES

Al Faruqi, I., & Al Faruqi, L. (1986). The Cultural Atlas of Islam. *American Journal of Islam and Society*, *3*(1). https://doi.org/10.35632/ajis.v3i1.2768

Al-Attas, S. M. N. (1980). " The Concept of Education in Islam." In *(Malaysia: International Institute of Islamic Thought and Civilization (Istac),* (Vol. 1, Number 1).

Al-Attas, S. M. N. (1991). The Concept of Islamic Education in Islam: a framework for an Islam philosophy of education. In *ISTAC*.

Azra, A., & Azra, A. (2019). Cultural Pluralism in Indonesia: Continuous Reinventing of Indonesian Islam in Local, National, and Global Contexts. *Asia-Pacific Journal on Religion and Society*, *2*(2), 56–60. https://doi.org/10.24014/APJRS.V2I2.6399

Ball, S. J. (2003). The teacher's soul and the terrors of performativity. *Journal of Education Policy*, *18*(2), 215–228. https://doi.org/10.1080/0268093022000043065

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. W H Freeman/Times Books/ Henry Holt & Co. https://psycnet.apa.org/record/1997-08589-000

Biesta, G. J. J. (2015). Good education in an age of measurement: Ethics, politics, democracy. *Good Education in an Age of Measurement: Ethics, Politics, Democracy*, 1–150. https://doi.org/10.4324/9781315634319

Bourdieu, P., & Nice, R. (1977). Outline of a Theory of Practice. *Outline of a Theory of Practice*. https://doi.org/10.1017/cbo9780511812507

Bronfenbrenner, U. (1979). *The Ecology of Human Development*. Harvard University Press.

Chawla, L. (2020). Childhood Nature Connection and Constructive Hope: A Review of Research on Connecting with Nature and Coping with Environmental Loss. *People and Nature*, *2*(3), 619–642. https://doi.org/10.1002/pan3.10128

Chen, G., Zhang, J., Chan, C. K. K., Michaels, S., Resnick, L. B., & Huang, X. (2020). The Link Between Student-perceived Teacher Talk and Student Enjoyment, Anxiety, and Discursive Engagement in the Classroom. *British Educational Research Journal*, *46*(3), 631–652. https://doi.org/10.1002/berj.3600

Citrawati, T., Supriyanto, T., Suminar, T., & Haryadi, H. (2024). Nature School as a Manifestation of Child-Friendly Schools in Madura Elementary Schools. In *International Conference on Science, Education and Technology* (Vol. 10).

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Desforges, C., & Abouchaar, A. (n.d.). *The Impact of Parental Involvement, Parental Support and Family Education on Pupil Achievements and Adjustment: A Literature Review RESEARCH*.

Dewey, J. (1938). Dewey's Philosophy on Experience and Education. In *Experience and Education*.

Ekawardhani, Y. A., Subandi, D., & Kurniadi, B. H. (2023). Animation Video Design as Promotion for Nature School as Habituation of A Green Lifestyle. *Journal of Eastern European and Central Asian Research*, *10*(4). https://doi.org/10.15549/jeecar.v10i4.1361

Epstein, I. (1991). Comparative and International Education: Bibliography (1990). *Comparative Education Review*. https://doi.org/10.1086/447064

Festinger, L. (1957). *A Theory of Cognitive Dissonance.* Stanford University Press. https://psycnet.apa.org/record/1993-97948-000

Freire, P. (2024). Pedagogy of the Oppressed. In *Encyclopedia of Heroism Studies* (pp. 1529–1529). Routledge. https://doi.org/10.1007/978-3-031-48129-1_301348

Goodall, J., & Montgomery, C. (2014). Parental Involvement to Parental Engagement: A Continuum. *Educational Review*, *66*(4), 399–410. https://doi.org/10.1080/00131911.2013.781576

Halstead, J. M. (2004). An Islamic Concept of Education. *Comparative Education*, *40*(4), 517–529. https://doi.org/10.1080/0305006042000284510;ISSUE:ISSUE:DOI

Hermawansyah, H. (2025). Eco-Pesantren-Based Islamic Education Management. *Fitrah: Jurnal Studi Pendidikan*, *16*(1), 102–114. https://doi.org/10.47625/fitrah.v16i1.982

Hornby, G., & Lafaele, R. (2011). Barriers to Parental Involvement in Education: An Explanatory Model. *Educational Review*, *63*(1), 37–52. https://doi.org/10.1080/00131911.2010.488049

Jeronen, E., Jeronen, J., & Raustia, H. (2009). Environmental Education in Finland - A Case Study of Environmental Education in Nature Schools. *International Journal of Environmental and Science Education*, *4*(1).

Judijanto, L., & Yusniar, Y. (2025). Integration of Islamic Values in STEM Teaching (Science, Technology, Engineering, Mathematics). *West Science Islamic Studies*, *3*(01), 26–31. https://doi.org/10.58812/wsiss.v3i01.1613

Kaplan, S. (1995). The Restorative Benefits of Nature: Toward an Integrative Framework. *Journal of Environmental Psychology*, *15*(3), 169–182. https://doi.org/10.1016/0272-4944(95)90001-2

Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Prentice Hall.

Kuo, M., Barnes, M., & Jordan, C. (2019). Do Experiences with Nature Promote Learning? Converging Evidence of a Cause-and-Effect Relationship. *Frontiers in Psychology*, *10*(FEB). https://doi.org/10.3389/fpsyg.2019.00305

Lincoln, Y., & Guba, E. G. (1985). *Qualitative Research Guidelines Project | Lincoln & Guba | Lincoln and*

Guba's Evaluative Criteria. Robert Wood Johnson Foundation.

Maslow, A. H. (1943). A Theory of Human Motivation. *Psychological Review*, *50*(4), 370–396. https://doi.org/10.1037/h0054346

Meghdari, S., & Yousefi, M. (2022). Critical Discourse Analysis of Educational Texts in Nature Schools: An Ecolinguistics Perspective. *Language Related Research*, *13*(1). https://doi.org/10.52547/LRR.13.1.4

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook.* Thousand Oaks, CA: Sage.

Naibaho, D., Widiastuti, M., Hasugian, J. M., & Nababan, B. D. (2024). The Integration of Spirituality and Technology: The Role of Christian Education in the Digitalization Era. *Edukasia Jurnal Pendidikan dan Pembelajaran*, *5*(2), 411–424. https://doi.org/10.62775/edukasia.v5i2.1604

Patton, M. (2003). Qualitative Evaluation Checklist. *Evaluation Checklists Project* (September).

Piaget, J. (1964). Part I: Cognitive development in children: Piaget development and learning. *Journal of Research in Science Teaching*, *2*(3), 176–186. https://doi.org/10.1002/tea.3660020306

Pujianto, W. E., Larassaty, A. L., Novie, M., Muzdalifah, L., & Rosyidah, E. (2021). Eco-Pesantren: Islamic Boarding School Transformation Program to Support Natural Sustainability And Sustainable Development. *Proceedings of the International Conference on Industrial & Mechanical Engineering and Operations Management*, *2*(1), 873–885.

Salimi, M., Dardiri, A., & Sujarwo. (2021a). The Profile of Students' Social Skills at Bengawan Solo Elementary School. *European Journal of Educational Research*, *10*(1), 211–226. https://doi.org/10.12973/EU-JER.10.1.211

Salimi, M., Dardiri, A., & Sujarwo, S. (2021b). The Profile of Students' Eco-Literacy at Nature Primary School. *Cypriot Journal of Educational Sciences*, *16*(4), 1450–1470. https://doi.org/10.18844/cjes.v16i4.5999

Saputra, A. D., Ginting, D. O. B., Pramadhanti, D. F., Muftihah, N., & Ssaddhono, K. (2023). Indonesian Language Learning Based on Ecological Intelligence: A Case of Bengawan Solo Nature School. *Research Journal in Advanced Humanities*, *4*(3), 124–138. https://doi.org/10.58256/rjah.v4i3.1276

Sobel, D. (2004). *Place-Based Education: Connecting Classrooms and Communities Closing the Achievement Gap: The Seer Report*. Orion Society. www.orionmagazine.org

Strong-Wilson, T., & Ellis, J. (2007). Children and Place: Reggio Emilia's Environment as Third Teacher. *Theory Into Practice*, *46*(1), 40–47. https://doi.org/10.1080/00405840709336547

Supriyoko, Nisa, A. F., Uktolseja, N. F., & Prasetyo, Z. K. (2022). The Nature-Based School Curriculum: A Solution to Learning-Teaching that Promotes Students' Freedom. *Cakrawala Pendidikan*, *41*(3). https://doi.org/10.21831/cp.v41i3.47903

Suyatno, P., D. I., A., G., W., & Ningrum, M. V. R. (2020). Factors affecting the meaning in life of teachers. *Pedagogika*, *139*(3), 52–72. https://doi.org/10.15823/p.2020.139.3

Tan, C. (2012). Islamic education and indoctrination: The case in Indonesia. In *Islamic Education and Indoctrination: The Case in Indonesia*. Routledge. https://doi.org/10.4324/9780203817766Wood, D., Bruner, J. S., & Ross, G. (1976).

The Role of Tutoring in Problem Solving. *Journal of Child Psychology and Psychiatry*, *17*(2), 89–100. https://doi.org/10.1111/j.1469-7610.1976.tb00381.Yin K. Robert, & Campbell T. Donald. (2018). Case Study Research and Design and Methods. In *(No Title)* (Vol. 5). Sage Publications. Files/79/Yin - 2018 - Case Study Research and Applications Design and Methods.pdf