

RESEARCH

Received: July 22, 2026

Revised: September 1, 2026

Accepted: October 10, 2026

Reconstructing the Hidden Curriculum in Pesantren Education: A Character-Based Model for Strengthening Santri's Scientific Ethos and Moral Formation in Madura

Baitiyah^{1*}, Mohammad Muchlis Solichin², and Atiqullah

***Correspondence:**

Baitiyah
nengbety07@gmail.com

¹⁻³ Departement of Islamic
Studies, Universitas Islam Negeri
Madura, Indonesia

Abstract

This study aimed to reconstruct a cross-site model of hidden-curriculum mechanisms that strengthen santri's scientific ethos and moral formation in Madurese pesantren, addressing the limited mechanism-based and comparative explanation in previous research. A qualitative multi-site case study was conducted at Pesantren Miftahul Qulub Polagan Pamekasan and Pesantren Mambaul Ulum Bira Timur Sampang from 22 March to 30 May 2026. Twelve purposively selected informants participated, comprising two kiai, four ustadz/ustadzah administrators, and six santri. Data were generated through semi-structured interviews, non-participant observation, and document analysis, then analyzed using hybrid deductive-inductive coding, within-site analysis, and cross-site comparison. The findings showed that leadership modelling, habituation, peer reinforcement, moral framing, and relational correction gave implicit meaning to kitab learning, congregational worship, musyawarah, khidmah, dormitory duties, and practical activities. These mechanisms supported curiosity, textual discipline, persistence, intellectual humility, collaborative reasoning, responsibility, simplicity, solidarity, and self-regulation, although Site A emphasized structured scholarly habituation and senior mentoring, whereas Site B emphasized practical independence, equality, and service. The findings indicate that the hidden curriculum operates as a culturally situated relational process rather than as a separate program, consistent with theories of institutional culture, modelling, habituation, and peer influence. However, the two-site purposive design, researcher positionality, elite-informant influence, and possible social-desirability bias limit transferability; future studies should test the model through broader comparative, longitudinal, implementation, and outcome-evaluation research.

Keywords: Hidden curriculum; pesantren education; character education; scientific ethos.

Introduction

Contemporary education is increasingly judged by two expectations that are closely related but not always easily reconciled: the capacity to develop intellectually competent learners and the responsibility to cultivate ethical judgment, social responsibility, and morally grounded conduct. Academic competence can be specified through syllabi, learning outcomes, instructional

sequences, and formal assessment, whereas the formation of values is less readily confined to written curriculum documents. Students also learn from how authority is exercised, whose voices are heard, how mistakes are treated, what kinds of conduct receive recognition, how teachers respond to disagreement, and what peers collectively regard as normal. Research on character and moral education therefore increasingly recognizes that the ethical effects of schooling are produced not only through explicit lessons but also through the social and institutional environments in which learners participate (Birhan et al., 2021; Zhang et al., 2022; Al-Mujahid & Hussain, 2025). The concept of the hidden curriculum provides a useful lens for examining this less visible dimension of education because it directs attention to tacit expectations, organizational norms, social hierarchies, role modelling, and everyday practices through which learners interpret what an institution actually values. Studies conducted in different educational settings show that such implicit messages can strengthen intended values, remain neutral, or work against the ideals articulated in the formal curriculum (Brown et al., 2020; Sarikhani et al., 2020; Hosseini et al., 2023).

This distinction matters because hidden curriculum is easily used too loosely. Not every educational activity outside an ordinary classroom constitutes hidden curriculum. The formal curriculum consists of deliberately planned learning objectives, content, pedagogical arrangements, and assessment. Non-formal education may occur outside regular classroom structures but remains intentionally organized around explicit educational purposes, while informal learning arises less systematically through everyday experience and interaction. Hidden curriculum cuts across these settings in a different way: it concerns the tacit meanings, unwritten expectations, assumptions, status relations, and behavioral messages learners infer from how educational life is organized and enacted. Rossouw and Frick (2023) conceptualize hidden curriculum precisely as a relational phenomenon shaped by interactions among institutional arrangements and lived educational experience, while Brown et al. (2020) demonstrate how organizational culture and role modelling can communicate meanings that depart from formally stated intentions. Contemporary evidence further shows that institutional conventions may shape not only learners but also teachers' perceptions of what kinds of practices are valued or marginalized (Lee et al., 2023; Mohebi Amin et al., 2024).

This conceptual boundary is particularly important for the present study. An explicitly scheduled recitation of classical Islamic texts, a formally prescribed congregational prayer, a written disciplinary regulation, or an organized religious program should not automatically be labelled a hidden curriculum merely because it contributes to character formation. The same principle applies to contemporary instructional innovations. Al Khansa et al. (2024), for example, examine an intentionally integrated model of Islamic Religious Education, Primahadi and Purwasih (2025) explicitly design character-based digital learning media, and Andriani and Andra (2023) deliberately integrate local wisdom into teaching materials. These are planned pedagogical interventions rather than hidden curriculum in themselves. They become analytically relevant to hidden curriculum when attention shifts from the prescribed activity to the meanings generated through its implementation—for example, whether participation communicates obedience or shared responsibility, whether correction models humiliation or compassion, whether discussion permits intellectual disagreement, and whether routine service is experienced as coercion or *khidmah*. The distinction prevents the concept from becoming an indiscriminate label for everything that happens beyond textbook instruction and enables researchers to examine the difference between what institutions formally intend to teach and what learners actually learn from institutional life.

Theoretically, the hidden curriculum can be understood as operating through several mutually connected social mechanisms rather than through a single instructional intervention. **Institutional culture** establishes taken-for-granted assumptions about authority, responsibility, achievement, belonging, and acceptable conduct. Moral modelling occurs when learners observe how teachers, leaders, senior students, and respected members of the community embody—or fail to embody—the values they formally advocate. Habituation gives repeated practices their formative significance by allowing conduct initially performed under external expectations to become increasingly familiar and socially meaningful. Peer relations, meanwhile, can reinforce institutional values but can also reinterpret, negotiate, or resist them. Sarikhani et al. (2020) found that organizational rules and institutional culture occupy structurally important positions in a hidden-curriculum system, while interpersonal relations and role modelling shape how these institutional conditions are experienced by learners. Brown et al. (2020) similarly identified organizational culture and role modelling as central mechanisms of implicit professional socialization. More recent reviews show that positive role models, supportive teams, transparent institutional cultures, and reflective environments can channel hidden curricula constructively, whereas contradictory norms and unexamined practices can undermine intended educational values (Hosseini et al., 2023; Meyer et al., 2025).

The effects of these mechanisms are therefore neither inherently positive nor uniformly negative. Hidden curriculum research developed substantially in health-professions education precisely because students frequently encounter contradictions between formally endorsed ethical ideals and the behaviors rewarded in practice. Brown et al. (2020) show that covert institutional expectations may complicate professional identity formation, while Behmanesh et al. (2025) demonstrate that hidden-curriculum factors can be associated with learners' adaptation to professional environments. Lee et al. (2023) further show that tacit institutional assumptions can constrain teachers themselves, underscoring that hidden curriculum is produced by an organizational ecology rather than transmitted unidirectionally from teacher to student. Conversely, Meyer et al. (2025) identify constructive hidden-curriculum processes associated with positive role modelling, supportive social environments, institutional culture, and the ability to navigate ambiguity. Although these studies originate mainly from professional and higher-education contexts outside pesantren, their theoretical significance is transferable: moral formation depends on the alignment or misalignment between declared values and the lived social order through which those values acquire concrete meaning.

Pesantren offers an especially rich context in which to investigate such processes because education does not end when a formal lesson concludes. Santri learn within an institutional ecology that often combines classroom study, religious scholarship, worship, communal residence, discipline, service, peer interaction, leadership relationships, and participation in collective routines. Consequently, the boundary between learning and everyday life is comparatively porous. Studies of Indonesian Islamic boarding schools show that character formation is embedded in combinations of institutional vision, curricular activities, habituation, community relationships, and religious routines (Hidayat & Bujuri, 2020; Salim et al., 2024; Fismanelly et al., 2024). Salim et al. (2024), for instance, show how daily social interactions and habituation within a pesantren environment support the internalization of moderate character, while Fismanelly et al. (2024) demonstrate that hidden-curriculum processes can contribute to engagement, independent learning, and broader learning dispositions. These findings support the view that pesantren should be studied not simply as institutions possessing a distinctive curriculum but as social worlds in which formal instruction and lived experience continuously

intersect.

Yet a more discriminating analysis is needed. To state that congregational prayer, classical-text study, dormitory discipline, or *musyawarah* develops character is not yet to identify a hidden-curriculum mechanism. What matters analytically is how such practices organize relationships and communicate meanings that are not exhausted by their formal objectives. A collective prayer may implicitly teach punctuality, equality, hierarchy, self-restraint, or communal responsibility depending on how it is organized. Studying with a *kiai* may transmit knowledge explicitly while simultaneously communicating ideas about intellectual authority, humility, perseverance, and appropriate relations between teacher and learner. Dormitory life may habituate cooperation but may also generate powerful peer norms beyond adult supervision. Recent evidence from Indonesian boarding-school contexts confirms that peer interaction can function in both directions: supportive relationships can reinforce religious practice, teamwork, and moral resilience, while peer pressure and conformity can create ethical tensions. The hidden curriculum of *pesantren* should therefore be treated as a relational mechanism of meaning production, not as a list of religious activities.

This mechanism-based perspective is also helpful for clarifying what the present research means by scientific ethos. The term is not used narrowly to denote competence in laboratory science. Rather, it refers to a scholarly disposition toward knowledge: seriousness in study, disciplined inquiry, intellectual responsibility, persistence, willingness to engage in reasoned discussion, respect for evidence and learned authority, and readiness to revise understanding through reflection and dialogue. In *pesantren* education, these dispositions may emerge alongside explicitly moral qualities rather than independently of them. A *santri* who repeatedly participates in *musyawarah*, observes disciplined scholarly practice, receives correction from teachers and peers, and learns to persist through demanding textual study may encounter implicit messages about what it means to become a responsible seeker of knowledge. Evidence from other Islamic residential traditions supports the broader argument that participation, service, teaching, communal membership, and repeated engagement with senior figures can shape learners' educational and religious identities over time (Usman et al., 2021; Fismanelly et al., 2024; Salim et al., 2024). The empirical question, however, is not whether these outcomes should occur in theory, but how participants in particular *pesantren* experience and interpret the institutional processes through which they are produced.

The Madurese context makes that question still more significant. *Pesantren* in Madura operates within a social landscape in which religious authority, kinship, local identity, and community relationships are deeply intertwined. Research on Madurese *pesantren* and related social structures shows that the *kiai* remains an important point of religious and social reference, although patterns of authority are not static and can shift across generations (Syarif et al., 2025). Related scholarship documents changing socio-cultural relationships surrounding *ghuru tolang* among younger Madurese, suggesting that respect for religious authority is reproduced through changing rather than timeless social forms. Syarif et al. (2025) similarly show that *pesantren*-based religious moderation in Madura and the Tapal Kuda region depends on networks linking *kiai*, *santri*, alumni, and locally rooted forms of religious knowledge. Thus, values such as *ta'dzim*, *khidmah*, loyalty, commitment, and communal responsibility cannot be adequately understood as isolated moral concepts; they are enacted within social relations that give them practical meaning.

Kinship adds another layer to this educational ecology. Fanani et al. (2025) demonstrate that the Madurese *Tanean Lanjheng* system provides a cultural space through which Islamic values are transmitted and internalized across everyday family and community relationships. Such findings

matter for hidden-curriculum research because santri do not enter pesantren as culturally empty subjects. They bring dispositions toward authority, kinship, communal obligation, gender roles, respect, and religious identity that have already been shaped by family and community life. Pesantren then encounters, reinforces, adjusts, or occasionally challenges those pre-existing orientations. Research on religious moderation among Indonesian Muslims likewise demonstrates that religious dispositions are embedded within wider institutional and social contexts rather than produced by classroom instruction alone (Subchi et al., 2022; Syarif et al., 2025; Fanani et al., 2025). A study of hidden curriculum in Madurese pesantren therefore needs to attend not only to institutional practices inside the compound but also to the cultural repertoires through which santri interpret those practices.

Recent Indonesian scholarship has begun to illuminate individual parts of this picture, but the evidence remains dispersed. One strand examines pesantren culture, habituation, and character education, showing that routines and institutional environments contribute to discipline, moderate religious character, and ethical conduct (Hidayat & Bujuri, 2020; Salim et al., 2024; Fismanelly et al., 2024). A second examines leadership and religious authority, emphasizing the role of the kiai, institutional relationships, and evolving patterns of santri–teacher interaction (Syarif et al., 2025). A third highlights community and peer relations, showing that character is negotiated through social interaction rather than simply delivered from above (Usman et al., 2021; Fanani et al., 2025). Together, these studies make a convincing case that pesantren education extends far beyond formal instruction. What they do not yet provide is a sufficiently integrated explanation of how institutional culture, moral modelling, habituation, and peer relations interact as hidden-curriculum mechanisms, nor how those mechanisms may simultaneously shape scholarly dispositions and moral formation.

There is also a methodological and conceptual problem in some hidden-curriculum research on pesantren: visible educational activities are sometimes treated as evidence of hidden curriculum without first showing what is actually hidden about them. When an activity is scheduled, explicitly justified, supervised, and tied to stated educational goals, describing the activity alone demonstrates an enacted or non-formal curriculum rather than an implicit one. The hidden dimension lies in the unwritten lesson carried by the organization of that activity—the expectations about obedience, knowledge, prestige, gender, cooperation, leadership, responsibility, or belonging that participants learn through participation. International hidden-curriculum scholarship has increasingly moved toward this mechanism-sensitive view, emphasizing organizational culture, relational experience, tacit expectations, and the possibility of contradiction between stated and lived values (Sarikhani et al., 2020; Rossouw & Frick, 2023; Lee et al., 2023; Mohebi Amin et al., 2024). Applying that analytical discipline to pesantren can prevent the concept from becoming synonymous with “everything outside the classroom.”

A further limitation is the predominance of single-site accounts. Hidden curriculum is inherently contextual: the same outward practice may convey different meanings under different leadership arrangements, institutional histories, peer cultures, or local social structures. Comparative analysis is therefore particularly valuable because it can distinguish mechanisms that recur across sites from those that depend on specific institutional traditions. The two settings examined here Pesantren Miftahul Qulub Polagan, Pamekasan, and Pesantren Mambaul Ulum Bira Timur, Sampang are located within the broader Madurese religious-cultural landscape but cannot be assumed to reproduce identical hidden curricula. Differences in institutional history, leadership relations, communal organization, patterns of habituation, and peer life may alter how formally similar practices are interpreted. A multi-site approach consequently allows the analysis to move

beyond cataloguing activities toward asking why particular messages become influential, who transmits them, how santri interpret them, and under what conditions they contribute to particular forms of scholarly and moral disposition.

The research gap therefore lies at the intersection of concept, mechanism, and context. Existing scholarship has established the importance of hidden curriculum in moral and identity formation, documented the formative role of pesantren culture and everyday religious practice, and demonstrated the significance of Madurese religious authority and local social networks. Nevertheless, three issues remain insufficiently resolved. First, studies do not consistently distinguish explicit educational programs from the tacit messages generated through their enactment. Second, culture, role modelling, habituation, and peer relations are frequently discussed as separate influences rather than reconstructed as an interconnected mechanism of value transmission. Third, comparative evidence remains limited regarding whether and how these mechanisms vary between pesantren embedded in the same broader cultural region. Consequently, we still know considerably more about what pesantren do than about how their lived institutional worlds teach meanings that are never fully written into the curriculum.

The novelty of this study lies in responding to these limitations through a mechanism-based, comparative interpretation of hidden curriculum. Rather than defining religious routines, disciplinary structures, or communal activities as hidden curriculum by default, the analysis traces the implicit meanings communicated through institutional culture, moral modelling, habituation, and peer relations. It also brings scientific ethos and moral formation into the same analytical frame, allowing the study to examine whether dispositions toward knowledge, disciplined inquiry, responsibility, and persistence are formed through mechanisms similar to or different from those associated with ethical and religious character. Finally, comparison between the Pamekasan and Sampang sites makes it possible to identify both recurrent patterns and institutionally specific configurations within a shared Madurese cultural environment. The intended contribution is therefore not another inventory of pesantren character-building activities, but a more precise explanation of the social processes through which ordinary educational life acquires formative moral and intellectual significance.

Accordingly, this study aims to identify and interpret the forms of hidden curriculum operating in Pesantren Miftahul Qulub Polagan Pamekasan and Pesantren Mambaul Ulum Bira Timur Sampang; explain how institutional culture, moral modelling, habituation, and peer relations transmit implicit values; examine how these mechanisms relate to santri's scientific ethos and moral formation; compare similarities and differences between the two pesantren; and reconstruct a context-sensitive conceptual model of hidden-curriculum formation within Madurese pesantren education. By focusing on implicit meanings rather than visible activities alone, the study seeks to contribute a more analytically disciplined account of character formation in pesantren and to provide institutional leaders with a framework for examining not only what they formally intend to teach, but also what their organizational culture and everyday relationships repeatedly teach in practice.

Method

Research Design and Case Boundaries

This study employed a qualitative multi-site case study to reconstruct the hidden curriculum in pesantren education as a character-based model for strengthening santri's scientific ethos and moral formation. The approach examined meanings, institutional values, authority relations, social interactions, and implicit educational messages embedded in everyday pesantren life

(Creswell & Poth, 2024). Each case was defined as a bounded institutional-cultural system: Pesantren Miftahul Qulub Polagan Pamekasan and Pesantren Mambaul Ulum Bira Timur Sampang. The unit of analysis was the mechanism through which institutional culture, modelling, habituation, and peer relations transmitted implicit values. Formal lessons, written schedules, and institutional rules were treated as explicit curriculum components unless their implementation conveyed unwritten meanings beyond their stated purposes. This case logic enabled contextual analysis of educational processes (Yin, 2018). It also supported systematic interpretation across institutionally bounded educational settings (DeMatthews et al., 2026; Yin, 2018).

The sites were purposively selected because both were residential Islamic institutions in Madura with kiai-centred authority, classical Islamic learning, communal worship, dormitory discipline, and sustained character formation. Their similarities supported literal replication, while differences in leadership experience, actor composition, institutional routines, and local traditions supported theoretical replication. The comparison sought analytical rather than statistical generalization: recurring and contrasting patterns refined an explanatory model rather than representing all pesantren numerically. The selection emphasized the informational relevance of each institutional case (Campbell et al., 2020; Palinkas et al., 2015). It also reflected purposive sampling principles in qualitative inquiry (Palinkas et al., 2015).

Participants

Twelve informants were recruited purposively because they had direct experience of leadership, educational management, institutional routines, or santri life. Seven came from Miftahul Qulub and five from Mambaul Ulum. They comprised two kiai, four ustadz or ustadzah serving as administrators, and six santri; six were male and six female, with four to twenty-eight years of experience. Inclusion required an active institutional relationship, direct knowledge of the practices studied, familiarity with pesantren culture, and voluntary consent. Seniority, gender, and institutional position were considered because leaders articulated institutional intentions, administrators explained implementation, and santri described lived experience. Recruitment ended when accounts repeatedly confirmed the main categories and produced no substantively new patterns. Participant identities were reported through codes to protect confidentiality.

Table 1. Participant Characteristics

Code	Site	Role	Gender	Experience
I01	Miftahul Qulub	Kiai/leader	Male	28 years
I02	Mambaul Ulum	Kiai/leader	Male	9 years
I03	Miftahul Qulub	Ustadz/administrator	Male	7 years
I04	Mambaul Ulum	Ustadz/administrator	Male	5 years
I05	Miftahul Qulub	Ustadzah/administrator	Female	5 years
I06	Mambaul Ulum	Santri	Male	4 years
I07	Miftahul Qulub	Ustadzah/administrator	Female	6 years
I08	Miftahul Qulub	Santri	Female	5 years
I09	Mambaul Ulum	Santri	Female	4 years
I10	Mambaul Ulum	Santri	Female	4 years
I11	Miftahul Qulub	Santri	Male	6 years
I12	Miftahul Qulub	Santri	Female	5 years

Data Collection

Fieldwork was conducted from 22 March to 30 May 2026. Data were generated through semi-structured interviews, non-participant observation, and document analysis (Bazen et al., 2021; Lim, 2025). The interview guide was developed from institutional culture, leadership modelling, habituation, peer relations, scientific ethos, and moral formation. It was reviewed for alignment

with the research questions and refined through preliminary testing to remove repetition, clarify culturally specific wording, and strengthen probes (Lim, 2025). Interviews were conducted individually in Bahasa Indonesia or Madurese according to participant preference, audio-recorded with consent, transcribed verbatim, checked against recordings, and translated into English only for selected quotations.

Observations covered classical Islamic text learning, *sorogan*, *bandongan*, *musyawarah*, *khidmah*, congregational prayer, dormitory routines, discipline, teacher–santri interaction, and peer relations. Field notes separated descriptive records from analytical and reflexive comments. The document corpus included institutional profiles, regulations, schedules, learning guidelines, organizational records, activity programs, and archives. Documents distinguished formally stated provisions from implicit messages emerging in practice. Comparing interviews, observations, and documents supported source and technique triangulation (Flick, 2018).

Data Analysis and Trustworthiness

Analysis followed data condensation, data display, and conclusion drawing or verification (Miles et al., 2020). A hybrid strategy combined deductive codes derived from the six constructs with inductive codes emerging from participants' accounts and observations (Miles et al., 2020; Nowell et al., 2017). The principal researcher coded all materials, developed a codebook, grouped codes into categories, and refined themes through constant comparison. Within-site matrices linked actors, practices, explicit provisions, implicit messages, transmission mechanisms, and outcomes. These matrices were transferred into a cross-site meta-matrix to identify literal replications, theoretical contrasts, negative cases, and rival explanations.

The model emerged through an audit trail from raw evidence to codes, categories, within-site themes, cross-site patterns, model components, and explanatory relationships. Credibility was strengthened through triangulation, member checking, peer debriefing, and negative-case analysis; transferability through thick description; dependability through an audit trail; and confirmability through reflexive notes, transcripts, matrices, and analytical memos.

Result

Site-Specific Forms and Mechanisms of the Hidden Curriculum

For cross-site reporting, Pesantren Miftahul Qulub Polagan Pamekasan is designated Site A, whereas Pesantren Mambaul Ulum Bira Timur Sampang is designated Site B. The evidence distinguishes formal provisions from hidden-curriculum transmission. Scheduled prayer, *kitab* instruction, written duties, and institutional rules were treated as explicit arrangements. They became analytically “hidden” only when their enactment conveyed unwritten expectations concerning authority, discipline, knowledge, service, or communal membership. The available transcript corpus supports this distinction through leaders' explanations and one santri's account of how everyday experience shaped conduct beyond classroom instruction.

At Site A, leadership modelling constituted the most explicit mechanism of implicit value transmission. I01 stated, “Bukan apa yang kamu ajarkan yang paling diingat santri, tapi apa yang mereka lihat darimu setiap hari.” He linked punctual communal prayer, visible *kitab* reading, honesty, simplicity, and gentle correction to the values expected from santri. The hidden curriculum therefore operated not through a separate programme, but through the consistency between institutional discourse and the kiai's observable conduct. I01 also described the kiai as simultaneously a spiritual guide, teacher, and parental figure.

The Site A santri account confirmed this mechanism while revealing the experiential process of internalization. I08 initially experienced pesantren routines as difficult, particularly early rising,

but reported that repetition gradually produced order and self-management. She explained that seeing the kiai arrive early for prayer and continue reading encouraged her to worship and study more consistently. Her statement that “lingkungan dan pengalaman sehari-hari lebih berpengaruh” than formal lessons identified the hidden element: discipline, responsibility, and cooperation were learned through repeated participation, observation, correction, and shared residence rather than through explicit character instruction alone.

At Site B, I02 similarly located hidden-curriculum transmission in modelling and routine, but emphasized service-oriented leadership, social equality, practical independence, and deliberation. He described himself as “pembimbing dan pelayan,” not a boss, and stated that santri learned simplicity by seeing the kiai’s lifestyle rather than hearing a lecture. Site B also linked habituation to agriculture, entrepreneurship, social service, and shared duties, thereby extending implicit formation beyond worship and *kitab* study. These practices communicated that religious learning should generate economic independence, generosity, cooperation, and useful participation in community life.

Cross-site comparison showed convergence in kiai modelling, repetitive routines, communal worship, peer guidance, and the cultural values of *ta’dzim*, *khidmah*, and *istiqamah*. The dominant emphasis nevertheless differed: Site A foregrounded humanistic leadership, *khidmah*, and senior-led guidance, whereas Site B more clearly emphasized practical independence, equality, and service. The data also contained disconfirming evidence. I01 acknowledged that some santri displayed outward respect only under supervision, while I08 reported peer invitations to avoid activities. Thus, institutional exposure was consistent, but internalization remained uneven, negotiated, and vulnerable to countervailing peer influence.

Table 2. Cross-Site Evidence of Hidden-Curriculum Forms and Mechanisms

Mechanism	Site A evidence	Site B evidence	Implicit message	Disconfirming evidence
Leadership modelling	Visible prayer, study, honesty, simplicity, and humanistic correction reported by I01 and I08	Service-oriented leadership, discipline, simplicity, and openness reported by I02	Institutional values acquire credibility when embodied by leaders	Some santri displayed compliance only before authority
Habituation	Worship, study, <i>khidmah</i> , cleaning duties, and senior mentoring	Worship, study, practical work, entrepreneurship, and social service	Repetition transforms institutional expectations into dispositions	Routines were initially burdensome and sometimes followed because of sanctions
Peer relations	Senior guidance, collective study, and mutual reminders	Senior guidance, shared duties, and peer academic assistance	Membership entails responsibility for others	Peers could also encourage laziness or avoidance
Deliberative authority	Musyawarah, personal guidance, and opportunities for polite criticism	Musyawarah, listening to santri, and family-based conflict resolution	Hierarchy should be accompanied by dialogue and care	Space for criticism remained regulated by authority

Note. Site A = Pesantren Miftahul Qulub Polagan Pamekasan; Site B = Pesantren Mambaul Ulum Bira Timur Sampang. *Ta’dzim* denotes respectful recognition of teachers, elders, knowledge, and others; *khidmah* denotes service; *istiqamah* denotes consistency in virtuous conduct.

Formation of Santri's Scientific Ethos

Scientific ethos was defined from the data as a morally oriented disposition toward sustained learning, comprising curiosity, textual discipline, persistence, intellectual honesty, openness to correction, and collaborative reasoning. Institutional culture, modelling, habituation, and peer relations served initially as sensitizing categories, while the specific ethos dimensions were refined inductively from repeated statements across I01, I02, and I08. Sincerity and *adab* were retained not as substitutes for inquiry, but as motivational and relational conditions shaping how knowledge was pursued. The analysis therefore treated scientific ethos as an integrated academic, ethical, and spiritual orientation.

At Site A, scientific ethos emerged through visible scholarly modelling and the enactment of traditional learning practices. I01 reported daily *kitab* reading, open questioning, and nightly *bahtsul masail* in which he did not claim that his view was always correct. *Sorogan* and *bandongan* had explicit instructional functions—individual reading, teacher explanation, and textual comprehension—but their hidden messages concerned preparation, patience, careful correction, and accountability for error. *Musyawah* added a dialogical element by allowing santri to present views within ethical boundaries, thereby linking respect for authority with openness to difference and disciplined argumentation.

I08's Site A account demonstrated how these dispositions were experienced by a learner. She associated congregational prayer with discipline, recitation with patience, and *khidmah* with concern for others. She also described peers and senior santri as academic motivators who reminded one another to study, explained difficult material, and modelled punctual participation. Her statement that discussion taught santri “berpikir kritis dan bertanya” supports collaborative reasoning as an emergent dimension. However, she also acknowledged moments of laziness and negative peer invitations, indicating that persistence required active self-regulation rather than automatic conformity to institutional routines.

At Site B, I02 identified curiosity, perseverance, openness, honesty, and lifelong learning as values transmitted through discussion, library use, independent tasks, and the kiai's continuing study. The explicit curriculum provided *kitab*, science, mathematics, language, and skills instruction; the hidden curriculum framed all knowledge as useful when pursued with proper intention and ethical responsibility. Site B also used seminars, technology access, agriculture, and entrepreneurship to connect religious learning with contemporary competence. This configuration produced a more visibly practical scientific ethos, although I02 recognized continuing tension between traditional assumptions and demands for modern knowledge.

Across the sites, scientific ethos was produced through a sequence of moral framing, repeated scholarly practice, correction, peer reinforcement, and opportunities for deliberation. Site A supplied stronger evidence of text-centred discipline and *bahtsul masail*, whereas Site B emphasized broader reading, practical tasks, and adaptation to modern knowledge. Hierarchy functioned productively when kiai modelled intellectual humility and opened space for questions. Yet the transcripts provide limited evidence of santri openly challenging authoritative interpretations. Accordingly, the findings support respectful inquiry, but do not establish that learner agency was equally available in every interaction or institutional setting.

Table 3. Cross-Site Construction of Santri's Scientific Ethos

Scientific-ethos dimension	Site A evidence	Site B evidence	Hidden-curriculum mechanism	Analytical boundary
Curiosity and	Kiai's visible	Continuing kiai	Scholarly modelling	Curiosity

lifelong learning	reading, santri questioning, and nightly <i>bahtsul masail</i>	study, library use, seminars, and independent assignments	and intellectual environment	remained culturally regulated
Textual discipline	Preparation, repetition, correction, <i>sorogan</i> , and <i>bandongan</i>	Daily reading, teacher correction, and structured study	Habituation and accountability for error	Formal instructional activity was not itself hidden
Intellectual persistence	Dense routines, repeated reading, and peer motivation	Repeated tasks, practical learning, and independent searching	Repetition and peer reinforcement	Fatigue and laziness occasionally disrupted persistence
Intellectual honesty and humility	Admitting uncertainty, accepting correction, and respecting texts	Acknowledging limited knowledge and pursuing knowledge ethically	Leader modelling and scholarly <i>adab</i>	Deference could potentially inhibit disagreement
Collaborative reasoning	<i>Musyawah</i> , discussion, and peer explanation	Discussion, problem-solving, and social learning	Guided dialogue and peer relations	Evidence of direct challenge to authority was limited

Note. *Sorogan* refers to individual reading before a teacher; *bandongan* refers to teacher-led collective explanation; *bahtsul masail* refers to collective deliberation on religious and contemporary issues; *adab* denotes ethically appropriate conduct toward knowledge, teachers, and fellow learners.

Moral Formation, Peer Relations, and the Boundaries of Authority

Moral formation at Site A centred on *ta'dzim*, *khidmah*, *istiqamah*, honesty, simplicity, responsibility, and compassion. I01 explained that these values were transmitted through respectful interaction, communal service, consistent worship, and leaders' conduct rather than through moral instruction alone. I08 described practical enactments: greeting teachers, speaking politely, cleaning shared spaces, helping others, and continuing worship or study despite reluctance. Her account showed that moral values became intelligible through embodied repetition. The hidden curriculum therefore translated abstract ethical vocabulary into recognizable routines, relational expectations, and consequences within daily pesantren life.

Peer relations at Site A extended moral formation beyond kiai-santri interaction. I01 described senior santri as guides responsible for juniors, while I08 experienced seniors as patient, supportive, and academically helpful. This arrangement communicated leadership as service and junior respect as *ta'dzim*. Nevertheless, the same structure contained risks. I01 warned that seniority must not become intimidation and acknowledged conflicts concerning rooms, duties, and personal matters. He also recognized that groups of disengaged santri could spread laziness. These accounts show that peer culture could reproduce either solidarity or problematic conformity, depending on supervision and ethical restraint.

At Site B, moral formation combined *taqwa*, *ta'dzim*, *khidmah*, *istiqamah*, honesty, responsibility, simplicity, generosity, and compassion. I02 reported that santri learned these values through shared worship, service, practical assignments, equal treatment, and involvement in social activities. The site-specific emphasis on agriculture, entrepreneurship, and community service expanded responsibility from personal discipline to productive contribution. Seniority was similarly framed as guidance rather than command, and conflicts were addressed through supervision, *musyawarah*, and family-like mediation. The evidence therefore depicts moral formation as relational practice, not merely compliance with written rules.

The transcripts also exposed the ambivalence of obedience and deference. Both leaders described hierarchical authority as culturally meaningful, yet each insisted that leaders should serve, listen, and avoid coercion. I01 stated that santri could offer criticism “selama dengan cara yang sopan dan di waktu yang tepat,” while I02 emphasized that seniors were leaders, not bosses. These safeguards preserved a degree of learner agency within asymmetrical relations. Even so, I01 admitted that some santri complied only because they feared sanctions or observation, demonstrating that outward obedience could not be equated automatically with moral internalization.

Cross-site moral outcomes converged around humility, discipline, responsibility, simplicity, solidarity, and self-regulation, but the routes of formation differed in emphasis. Site A relied more strongly on humanistic correction, *khidmah*, and senior-junior mentoring; Site B emphasized practical independence, generosity, equality, and community-oriented service. Negative cases qualified the idealized institutional narrative: conflict, laziness, selective compliance, and potentially oppressive seniority were explicitly acknowledged. Consequently, the findings indicate that pesantren culture creates repeated opportunities for moral formation, while outcomes depend on reflective participation, accountable authority, fair sanctions, and peer environments that support rather than undermine institutional values.

Table 4. Cross-Site Evidence of Moral Formation and Its Ethical Boundaries

Moral outcome	Site A evidence	Site B evidence	Formation mechanism	Ethical boundary
<i>Ta'dzim</i> and humility	Respectful speech, greeting teachers, listening, and openness to correction	Respect for teachers, knowledge, parents, guests, and fellow santri	Modelling and relational etiquette	Respect should not suppress legitimate questioning
<i>Khidmah</i> and responsibility	Cleaning, communal duties, helping peers, and senior mentoring	Social service, practical duties, agriculture, and assisting others	Service-based habituation	Service should not become exploitation
<i>Istiqamah</i> and self-regulation	Continued worship and learning despite reluctance	Consistent prayer, learning, and completion of assigned duties	Repetition and supervision	Supervised compliance does not necessarily indicate internalization
Simplicity and generosity	Modest living, shared facilities, and restrained consumption	Simple leadership, equal treatment, sharing, and charitable practice	Residential culture and modelling	Simplicity should not legitimize inadequate provision
Solidarity and social care	Peer support, collective study, and conflict mediation	Cooperation, community activities, and family-based mediation	Communal living and peer reinforcement	Group harmony should not conceal conflict or intimidation

Note. *Taqwa* denotes God-conscious ethical orientation. The ethical-boundary column reports counterevidence and conditions under which intended moral values could become coercive, passive, or institutionally problematic.

Cross-Site Reconstruction of the Character-Based Hidden Curriculum

The cross-site reconstruction generated a five-component model: contextual conditions, hidden-curriculum mechanisms, observable enactments, scientific-ethos outcomes, and moral outcomes. Residential life, *kiai*-centred authority, Madurese cultural values, classical learning, and structured

routines formed the contextual conditions. Modelling, habituation, peer reinforcement, moral framing, and relational correction functioned as mechanisms. These mechanisms operated through prayer, *kitab* learning, *musyawarah*, *khidmah*, dormitory duties, practical work, and informal interaction. The outcomes were interconnected rather than separate: disciplined inquiry was morally framed, while moral formation was strengthened through intellectually meaningful participation and reflective correction.

The model's contextual layer was supported at both sites but assumed different configurations. Site A combined a long-established kiai leadership, visible scholarly practice, senior-junior mentoring, and an explicitly humanistic approach to discipline. Site B combined service-oriented leadership, equal communal treatment, practical life-skills activities, and deliberate engagement with modern knowledge. Shared Madurese values *ta'dzim*, *khidmah*, and *istiqamah* provided a common cultural grammar, but did not produce identical practices. The comparison therefore shows that cultural continuity operates through institutionally specific arrangements rather than through a uniform pesantren pattern.

The mechanism-to-practice connection clarifies what was specifically hidden. Prayer schedules, *sorogan*, *bandongan*, duties, and rules were explicit institutional provisions; their hidden effects arose from how they were enacted and interpreted. Visible consistency by leaders conveyed credibility, repetition produced embodied discipline, peer monitoring reinforced participation, and compassionate correction framed authority as care. In Site A, these mechanisms were evident in nightly discussion, senior mentoring, and routines of service. In Site B, they appeared through library use, practical assignments, social service, entrepreneurship, and deliberative conflict resolution. The model therefore explains transmission rather than merely cataloguing activities.

A feedback process connected outcomes to institutional reproduction. Senior santri who internalized responsibility subsequently guided juniors, disciplined peers, and modelled study practices, allowing values to circulate horizontally as well as vertically. Yet feedback could also reproduce negative patterns when influential peers encouraged laziness or when hierarchy became coercive. The reconstructed model therefore includes ethical safeguards: opportunities for respectful questioning, non-violent correction, fair sanctions, supervision of senior authority, and recognition that compliance does not prove internalization. These safeguards were grounded in the leaders' repeated preference for persuasion, *musyawarah*, and service-oriented leadership.

The central cross-site finding is that hidden curriculum did not operate as an additional subject but as a relational mechanism connecting culture, authority, routine, and communal experience to scientific and moral dispositions. Site A demonstrated a stronger pathway from scholarly modelling and structured habituation to textual discipline, humility, and service. Site B demonstrated a stronger pathway from practical independence and collective participation to curiosity, responsibility, generosity, and adaptive competence. Both pathways remained conditional: digital influence, economic constraints, peer pressure, selective compliance, and unequal authority could weaken intended outcomes and required continuing institutional reflection.

Table 5. Integrated Cross-Site Reconstruction of the Pesantren Hidden Curriculum

Analytical component	Shared cross-site pattern	Site A emphasis	Site B emphasis	Feedback and safeguards
Contextual conditions	Residential education, kiai authority, Madurese	Long leadership experience, scholarly visibility, and senior	Service leadership, equality, life skills, and modern	Context shapes but does not determine

	values, classical learning, and structured routines	mentoring	adaptation	outcomes
Transmission mechanism	Modelling, habituation, peer reinforcement, moral framing, and relational correction	Humanistic guidance, <i>khidmah</i> , textual discipline, and discussion	Practical responsibility, generosity, social service, and deliberation	Authority requires accountability and non-coercive correction
Observable enactments	Worship, study, shared duties, dormitory interaction, and peer guidance	<i>Bahtsul masail</i> , <i>sorogan</i> , <i>bandongan</i> , and senior-led mentoring	Library use, assignments, seminars, agriculture, and entrepreneurship	Practices must be separated from their implicit meanings
Scientific-ethos outcomes	Curiosity, persistence, honesty, humility, and collaborative reasoning	Textual accuracy and ethically regulated argumentation	Practical inquiry and adaptation to contemporary knowledge	Respectful questioning protects learner agency
Moral outcomes	Humility, discipline, responsibility, simplicity, solidarity, and self-regulation	Service, humanistic correction, and senior-junior responsibility	Independence, equality, generosity, and community contribution	Negative cases, conflict, and selective compliance require continuous evaluation

Discussion

The findings suggest that the hidden curriculum in the two pesantren operates not as an additional subject or an accidental residue of formal education, but as a relational process through which institutional culture, leadership conduct, repeated routines, and communal interaction convey implicit educational meanings. This interpretation converges with studies positioning the hidden curriculum as a transmission channel for norms, values, and behavioural expectations through institutional culture, teacher–student relationships, and peer dynamics (Al-Mujahid & Hussain, 2025; Kärner & Schneider, 2024). However, the present findings qualify this proposition by distinguishing visible educational activities from the unwritten meanings generated through their enactment. A prayer schedule, *kitab* lesson, or institutional regulation remained explicit; its hidden dimension appeared when participation communicated discipline, intellectual humility, collective responsibility, or expectations concerning authority.

This distinction extends earlier pesantren accounts that primarily describe implicit learning as emerging from cultural practices, social norms, and informal interaction (Fanani et al., 2025; Sayyi, Muslimin, et al., 2025). The cross-site evidence indicates that hidden-curriculum transmission was neither completely spontaneous nor fully designed. Its operation depended on the interaction between formally organized activities and less explicit mechanisms such as modelling, habituation, peer reinforcement, moral framing, and relational correction. In this respect, the reconstructed model has greater explanatory reach than an inventory of pesantren activities because it explains how an explicit practice may produce implicit dispositions. This interpretation supports calls for educational institutions to manage the hidden curriculum reflectively, while avoiding the assumption that every institutional routine necessarily produces the intended character outcome (Behmanesh et al., 2025; Owaduge, 2020).

Leadership modelling was especially important because institutional values acquired credibility through the perceived consistency of the kiai and educators. I01 summarized this principle by stating, “*Bukan apa yang kamu ajarkan yang paling diingat santri, tapi apa yang*

mereka lihat darimu setiap hari." This finding converges with research identifying teacher conduct and institutional leadership as central mechanisms of value transmission (Al-Mujahid & Hussain, 2025; Fithriyah, 2023; Wang, 2023). The pesantren cases nevertheless extend this literature because the kiai's modelling combined pedagogical, spiritual, symbolic, and familial authority. His conduct was interpreted not merely as professional behaviour, but as an embodiment of the moral and intellectual order of the institution. Yet such symbolic authority remained educationally constructive only when accompanied by humility, care, deliberation, and accountability.

The reconstructed model also clarifies how traditional textual learning may contribute to scientific ethos without treating *sorogan* and *bandongan* themselves as hidden curricula. Their explicit function concerned reading, explanation, correction, and comprehension of classical texts. Their implicit contribution arose from the norms embedded in their implementation: preparation before instruction, patience in following textual explanation, willingness to acknowledge error, persistence through repetition, and respect for evidential and interpretive authority. These patterns converge with studies linking the hidden curriculum and habituation to responsibility, independence, perseverance, and ethical learning dispositions (Apriyani et al., 2026; Behmanesh et al., 2025; Fithriyah, 2023; Ilma & Rohmah, 2025; Sukarni, 2025). The findings extend these discussions by positioning scientific ethos as an integration of intellectual discipline, honesty, collaborative reasoning, and morally framed engagement with knowledge.

Scientific ethos was therefore not treated as equivalent to academic performance or modern research productivity. Its dimensions curiosity, textual discipline, intellectual persistence, honesty, openness to correction, and collaborative reasoning were refined through hybrid deductive-inductive analysis. The findings indicate that *adab* and religious motivation could sustain learning by linking the pursuit of knowledge to responsibility and usefulness. Nevertheless, respect for teachers did not automatically produce critical inquiry. The transcripts documented opportunities for questions and *musyawarah*, but provided less evidence of santri openly challenging authoritative interpretations. This qualifies idealized claims that hierarchical religious education inherently supports critical thinking. Its contribution to inquiry appears conditional upon the availability of dialogical spaces and the willingness of leaders to acknowledge uncertainty and legitimate difference.

Habituation further connected formal institutional order with embodied dispositions. Repeated prayer, study, cleaning, service, and dormitory responsibilities provided a stable rhythm through which santri practised punctuality, consistency, and collective responsibility. This interpretation is consistent with scholarship identifying habituation as a central process in character internalization (Ilma & Rohmah, 2025; Sayyi et al., 2021; Sukarni, 2025). However, the present evidence also complicates this literature. I01 acknowledged that some santri displayed obedience primarily under supervision, while other accounts indicated that routines were initially experienced as burdensome. Such cases suggest that repetition may generate behavioural regularity without necessarily producing internal moral commitment. Habituation should therefore be interpreted as an opportunity for internalization rather than as evidence that internalization has uniformly occurred.

The role of peer relations similarly showed both formative and potentially disruptive effects. Communal residence enabled santri to learn cooperation, mutual assistance, tolerance, conflict management, and shared responsibility. This supports studies that locate hidden-curriculum transmission in group norms, peer roles, and everyday social relationships (Ismail et al., 2025; Kärner & Schneider, 2024; Shahamat et al., 2019). It also reinforces the representation of pesantren as an experiential environment for character education (Sah & Fuad, 2024; Sayyi,

Mashuri, et al., 2025). Nevertheless, the data did not present collective life as uniformly harmonious. Conflicts concerning duties and accommodation, negative peer influence, selective participation, and the possibility of senior intimidation demonstrated that peer culture could either support or weaken institutional objectives. Seniority therefore functioned constructively only when leadership was framed as service rather than domination.

The multi-site comparison revealed a shared set of mechanisms but different institutional emphases. Site A displayed a stronger pathway from visible scholarly modelling, structured habituation, *khidmah*, and senior-junior mentoring toward textual discipline, humility, and responsibility. Site B placed relatively greater emphasis on practical independence, equal communal participation, social service, agriculture, entrepreneurship, and engagement with contemporary knowledge. These differences demonstrate why a multi-site design was analytically important. A single-site account might have represented one institutional configuration as the general pesantren pattern, whereas comparison showed that similar cultural values could be mediated through different organizational practices and produce different emphases in scientific and moral formation.

The cultural interpretation must also remain grounded in participants' accounts rather than in generalized assumptions about Madurese identity. The values of *ta'dzim*, *khidmah*, and *istiqamah* were explicitly articulated by I01 and I02 as foundations of leadership and santri formation; they were not categories inferred solely by the researchers. Simplicity, sincerity, generosity, and respect for knowledge were likewise described directly through accounts of leadership conduct and daily pesantren life. These findings converge with studies emphasizing the relationship among pesantren, kiai authority, and the religious-cultural life of Madurese communities (Asrohah & Ismail, 2026; Hannan, 2022; Pribadi, 2013). Nevertheless, the evidence represents two institutions and should not essentialize all Madurese pesantren or communities as culturally uniform.

The integrated model contributes to curriculum studies by connecting contextual conditions, mechanisms, practices, outcomes, and institutional feedback in a single explanatory sequence. Previous scholarship has established that the hidden curriculum contributes to a value-rich educational ecosystem and holistic learner development (Fismanelly et al., 2024; Rofiqi et al., 2026; Rossouw & Frick, 2023). The present reconstruction adds specificity by showing that contextual conditions do not directly generate scientific or moral outcomes. Their influence is mediated through modelling, habituation, peer reinforcement, moral framing, and relational correction. Observable practices then become sites where implicit messages are experienced, negotiated, accepted, or resisted. Outcomes are subsequently fed back into institutional culture when senior santri and administrators reproduce, reinterpret, or modify the values transmitted to newer members.

The feedback component also prevents the model from depicting pesantren culture as static. Santri were not merely passive recipients of institutional values; they participated in their reproduction through mentoring, peer correction, discussion, and collective responsibility. At the same time, agency remained structured by asymmetrical relations with kiai, teachers, administrators, and senior santri. Consequently, the model requires ethical safeguards, including space for respectful questioning, fair and educational sanctions, non-violent correction, supervision of senior authority, and mechanisms for hearing santri's concerns. These safeguards are necessary because *ta'dzim* can support intellectual humility but may also become passive deference, while *khidmah* can foster service but may become exploitative when authority lacks accountability.

Alternative explanations must also be considered. Santri's scientific and moral dispositions could have been influenced by family upbringing, prior schooling, individual motivation, religious commitment before entering pesantren, socioeconomic background, and relationships beyond the institution. Digital media and wider social environments may also strengthen or contradict pesantren values. Because this qualitative study did not isolate these influences, the findings should not be interpreted as demonstrating that hidden-curriculum mechanisms independently caused the observed dispositions. Rather, the cases support an interpretive proposition that pesantren culture provides a sustained institutional environment in which particular scientific and moral orientations may be practised, reinforced, negotiated, or resisted.

Several limitations further qualify these interpretations. First, the researcher's familiarity with pesantren culture facilitated access and contextual understanding but may also have encouraged normative assumptions or excessive sympathy toward institutional narratives. Second, access was mediated through pesantren authorities, which may have shaped participant selection and restricted exposure to more critical experiences. Third, the presence of kiai and administrators among the informants created a risk of elite-informant influence, particularly in defining institutional ideals. Fourth, participants may have provided socially desirable accounts because the research concerned morality, authority, and religious education. Finally, two purposively selected sites cannot represent the diversity of Madurese or Indonesian pesantren, so transferability depends on contextual similarity rather than statistical representativeness.

Within these boundaries, the findings support a cautious proposition that the pesantren hidden curriculum operates as a culturally situated and relational educational process. Its explanatory value lies in connecting institutional conditions with the mechanisms through which explicit activities acquire implicit moral and intellectual meanings. The model does not establish universal effectiveness, nor does it assume that all santri internalize institutional values uniformly. Instead, it illustrates how modelling, habituation, peer interaction, and moral framing may support scientific ethos and moral formation when accompanied by reflective practice, dialogical authority, ethical safeguards, and continuing institutional evaluation.

Conclusion

This study concludes that the hidden curriculum in the two Madurese pesantren operates through interconnected mechanisms of leadership modelling, habituation, peer reinforcement, moral framing, and relational correction. These mechanisms give implicit meaning to observable practices such as *kitab* learning, congregational worship, *musyawarah*, *khidmah*, dormitory duties, and practical activities. Across both sites, they supported the development of curiosity, textual discipline, persistence, intellectual humility, responsibility, simplicity, solidarity, and self-regulation, although the institutional emphasis differed between structured scholarly habituation at Site A and practical, collective participation at Site B.

The study contributes a bounded cross-site model linking contextual conditions, hidden-curriculum mechanisms, observable practices, scientific and moral outcomes, and institutional feedback. Its practical relevance lies in helping pesantren and related Islamic institutions reflect on how authority, routines, and peer relations transmit values. However, the model is based on two purposively selected sites and remains subject to researcher positionality, elite-informant influence, and social-desirability bias. Implementation studies, longitudinal observation, broader site comparison, and outcome evaluation are therefore required before claims of effectiveness or wider transferability can be made.

References

- Al Khansa, E., Pahrudin, A., Jatmiko, A., Sufian, M., & Azad, I. (2024). The integrated learning model in Islamic Religious Education in junior high school. *Southeast Asian Journal of Islamic Education*, 7(2), 69–85. <https://doi.org/10.21093/sajie.v7i2.9356>
- Al-Mujahid, A., & Hussain, H. (2025). Exploring the hidden curriculum as a catalyst for moral development among secondary-level students in private schools of District East, Karachi. *Review Journal of Social Psychology & Social Works*, 3(2), 993–1002. <https://doi.org/10.71145/rjssp.v3i2.257>
- Andriani, L., & Andra, V. (2023). Developing folklore-based teaching materials to foster local wisdom in junior secondary Indonesian language classes. *JPI: Jurnal Pustaka Indonesia*, 3(3). <https://doi.org/10.62159/jpi.v3i2.427>
- Apriyani, N., Marjuni, A., Rasyid, M. N. A., Baharuddin, B., & Mahyuddin, M. (2026). The role of teachers in the implementation of the T3Q program for internalizing character values. *Edukasi Islami: Jurnal Pendidikan Islam*, 15(2), 701–720. <https://doi.org/10.30868/ei.v15i02.10180>
- Asrohah, H., & Ismail, I. (2026). The relationship between Kiai and Santri from the perspective of symbolic interactionism in Madura. *Jurnal Studi Pendidikan Agama Islam*, 2(1), 93–102. <https://doi.org/10.32806/jspai.v2i1.1733>
- Bazen, A., Barg, F. K., & Takeshita, J. (2021). Research techniques made simple: An introduction to qualitative research. *Journal of Investigative Dermatology*, 141(2), 241–247.e1. <https://doi.org/10.1016/j.jid.2020.11.029>
- Behmanesh, D., Jalilian, S., Heydarabadi, A. B., Ahmadi, M., & Khajeali, N. (2025). The impact of hidden curriculum factors on professional adaptability. *BMC Medical Education*, 25, Article 186. <https://doi.org/10.1186/s12909-024-06618-1>
- Birhan, W., Shiferaw, G., Amsalu, A., Tamiru, M., & Tiruye, H. (2021). Exploring the context of teaching character education to children in preprimary and primary schools. *Social Sciences & Humanities Open*, 4(1), 100171. <https://doi.org/10.1016/j.ssaho.2021.100171>
- Brown, M. E. L., Coker, O., Heybourne, A., & Finn, G. M. (2020). Exploring the hidden curriculum's impact on medical students: Professionalism, identity formation and the need for transparency. *Medical Science Educator*, 30, 1107–1121. <https://doi.org/10.1007/s40670-020-01021-z>
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652–661. <https://doi.org/10.1177/1744987120927206>
- Creswell, J. W., & Poth, C. N. (2024). *Qualitative inquiry and research design: Choosing among five approaches* (5th ed.). SAGE Publications.
- DeMatthews, D. E., Hart, T. D., James, L. D., III, & Casas, E. (2026). Qualitative case study design: Recommendations for doctoral students in educational leadership programs. *Journal of Research on Leadership Education*, 21(3), 385–405. <https://doi.org/10.1177/19427751251411499>
- Fanani, Z., Ilmi, V. W., Siregar, W. Z. B., & Maskuri, A. (2025). Kinship systems and the internalization of Islamic values among the Madurese community in Tanean Lanjeng. *An-Nida'*, 49(1), 17–31. <https://doi.org/10.24014/an-nida.v49i1.35589>
- Fismanelly, F., Montessori, M., Indrawadi, J., Fatmariza, F., & Jannah, M. (2024). Implementation of hidden curriculum in social science subjects in pesantren: Encouraging student engagement in the 21st century. *AL-ISHLAH: Jurnal Pendidikan*, 16(3), 2996–3008. <https://doi.org/10.35445/alishlah.v16i3.5079>
- Fithriyah, I. (2023). Installation of religious moderation values in multi ethnic and religious communities in Polagan Galis Pamekasan Village. *FIKROTUNA: Jurnal Pendidikan dan Manajemen Islam*, 12(2), 198–217. <https://doi.org/10.32806/jf.v12i02.7350>
- Flick, U. (2018). *An introduction to qualitative research*. SAGE.
- Hannan, A. (2022). Penguatan moderasi beragama di Madura melalui jejaring sosial keagamaan pesantren. *Islamika Inside: Jurnal Keislaman dan Humaniora*, 8(1), 30–59. <https://doi.org/10.35719/islamikainside.v8i1.175>

- Hidayat, N., & Bujuri, D. A. (2020). The implementation of character education in Islamic boarding school. *Lentera Pendidikan*, 23(1), 127–140. <https://doi.org/10.24252/lp.2020v23n1i11>
- Hosseini, A., Ghasemi, E., Nikbakht Nasrabadi, A., & Sayadi, L. (2023). Strategies to improve hidden curriculum in nursing and medical education: A scoping review. *BMC Medical Education*, 23, Article 658. <https://doi.org/10.1186/s12909-023-04652-z>
- Ilma, A., & Rohmah, Z. (2025). AI in EFL education: Teachers' competence and the roadblocks to teaching material development. *Cogent Education*, 12(1), Article 2588471. <https://doi.org/10.1080/2331186X.2025.2588471>
- Ismail, I., Takwil, M., Sayuti, A. F., Ridho, A., Sayyi, A., & Fauzi, A. (2025). The synthesis of Turath and modern instructional design: Enhancing Fiqh Al-Mawarith mastery at Maktab Nubdzat Al-Bayan. *Edureligia: Jurnal Pendidikan Agama Islam*, 9(3), 425–439. <https://doi.org/10.33650/edureligia.v9i3.11625>
- Kärner, T., & Schneider, G. (2024). A scoping review on the hidden curriculum in education. *Research in Education Curriculum and Pedagogy: Global Perspectives*, 1(1). <https://doi.org/10.56395/recap.v1i1.1>
- Lee, C. A., Wilkinson, T. J., Timmermans, J. A., Ali, A. N., & Anakin, M. G. (2023). Revealing the impact of the hidden curriculum on faculty teaching: A qualitative study. *Medical Education*, 57(8), 761–769. <https://doi.org/10.1111/medu.15026>
- Lim, W. M. (2025). What is qualitative research? An overview and guidelines. *Australasian Marketing Journal*, 33(2), 199–229. <https://doi.org/10.1177/14413582241264619>
- Meyer, R., Archer, E., & Smit, L. (2025). The positive influence of the hidden curriculum in medical education: A scoping review. *Medical Science Educator*, 35, 1817–1826. <https://doi.org/10.1007/s40670-025-02380-1>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE.
- Mohebi Amin, A., Rabiei, M., Yazdi Amirkhiz, S. Y., & Shomoossi, N. (2024). We are still to learn from our learners: A hidden curriculum developed during the COVID-19 pandemic. *Teaching and Teacher Education*, 137, Article 104390. <https://doi.org/10.1016/j.tate.2023.104390>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16, 1–13. <https://doi.org/10.1177/1609406917733847>
- Owaduge, S. B. (2020). *The role of teachers in integrating formal, informal, and hidden curricula*. Zenodo. <https://doi.org/10.5281/zenodo.14986772>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>
- Pribadi, Y. (2013). Religious networks in Madura: Pesantren, Nahdlatul Ulama, and Kiai as the core of Santri culture. *Al-Jami'ah: Journal of Islamic Studies*, 51(1), 1–32. <https://doi.org/10.14421/ajis.2013.511.1-32>
- Primahadi, A., & Purwasih, A. (2025). Developing character-based animated learning media using Animaker: A case study in Indonesian junior high school social studies. *Digital Learning, Social Science, and Life-course Studies*, 1(1), 11–23. <https://doi.org/10.70211/disolife.v1i1.255>
- Rofiqi, Muin, A., Bahri, R., Rosyid, M. Z., Rahman, H., & Sayyi, A. (2026). Islamic feminism in global context: Negotiating gender justice and religious authority in Indonesian higher education institutions. *Journal of Gender Studies*. Advance online publication. <https://doi.org/10.1080/09589236.2026.2655827>
- Rossouw, N., & Frick, L. (2023). A conceptual framework for uncovering the hidden curriculum in private higher education. *Cogent Education*, 10(1), Article 2191409. <https://doi.org/10.1080/2331186X.2023.2191409>
- Sah, M. A., & Fuad, A. J. (2024). Islamic boarding school education cultivates moderate character in Poso Central Sulawesi. *Al-Hayat: Journal of Islamic Education*, 8(3), 1173–1196. <https://doi.org/10.35723/ajie.v8i3.661>

- Salim, N. A., Zaini, M., Wahib, A., Fauzi, I., & Asnawan. (2024). Fostering moderate character of santri: Effective hidden curriculum strategy in Islamic boarding schools. *Nazhruna: Jurnal Pendidikan Islam*, 7(2), 357–372. <https://doi.org/10.31538/nzh.v7i2.4676>
- Sarikhani, Y., Shojaei, P., Rafiee, M., & Delavari, S. (2020). Analyzing the interaction of main components of hidden curriculum in medical education using interpretive structural modeling method. *BMC Medical Education*, 20, Article 176. <https://doi.org/10.1186/s12909-020-02094-5>
- Sayyi, A., Mashuri, S., Afandi, A., & Alanesi, A. S. H. G. (2025). Moderate Islamic education curriculum design: Realizing tolerance amidst social diversity in the era of Society 5.0. *Jurnal Konseling Pendidikan Islam*, 6(3), 261–277. <https://doi.org/10.32806/jkpi.v6i3.1184>
- Sayyi, A., Muslimin, A. A., Afandi, Fithriyah, I., Al-Manduriy, S. M., & Alanesi, A. S. H. G. (2025). Child-friendly education model for violence prevention in Islamic boarding schools. *Al-Hayat: Journal of Islamic Education*, 9(4), 800–820. <https://doi.org/10.35723/ajie.v9i4.187>
- Sayyi, A., Subhan, M., Al-Manduriy, S. M., & Rofiqi, R. (2021). Management model of Kitab Kuning reading acceleration program at Mambaul Ulum Islamic Boarding School, Bira Timur Sampang. *FIKROTUNA: Jurnal Pendidikan dan Manajemen Islam*, 13(1), 1–21. <https://doi.org/10.32806/jf.v13i01.4788>
- Shahamat, H., Nadimi, H., Gharehbaglou, M., & Keramati, E. (2019). An analysis of the motivating factors underlying the hidden curriculum components through the lens of the Iranian students of architecture: A qualitative study. *Teaching and Teacher Education*, 86, Article 102841. <https://doi.org/10.1016/j.tate.2019.05.007>
- Subchi, I., Zulkifli, Latifa, R., & Sa'diyah, S. (2022). Religious moderation in Indonesian Muslims. *Religions*, 13(5), Article 451. <https://doi.org/10.3390/rel13050451>
- Sukarni, S. (2025). Hidden curriculum in student character formation through activities in elementary school: A case study. *Juwara: Jurnal Wawasan dan Aksara*, 5(2), 467–481. <https://doi.org/10.58740/juwara.v5i2.711>
- Syarif, Z., Thabrani, A. M., & Imamuddin. (2025). Strengthening religious moderation through religious education based on local wisdom of pesantren in Madura and the Tapal Kuda region. *TADRIS: Jurnal Pendidikan Islam*, 19(2), 279–294. <https://doi.org/10.19105/tjpi.v19i2.14965>
- Usman, J., Syabuddin, & Zakaria, F. (2021). Teungku identity development: The role of Dayah community of practice. *SAGE Open*, 11(3). <https://doi.org/10.1177/21582440211031532>
- Wang, X. (2023). Exploring positive teacher-student relationships: The synergy of teacher mindfulness and emotional intelligence. *Frontiers in Psychology*, 14, Article 1301786. <https://doi.org/10.3389/fpsyg.2023.1301786>
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.
- Zhang, Q., Saharuddin, N. B., & Abdul Aziz, N. A. B. (2022). The analysis of teachers' perceptions of moral education curriculum. *Frontiers in Psychology*, 13, Article 967927. <https://doi.org/10.3389/fpsyg.2022.967927>