

Hierarchical-Reflective Learning Strategy in Santri Mentorship: Analyzing the Tiered Leadership Model as Pedagogical Technology in the Dormitory of Pondok Modern Darussalam Gontor

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Article Info	Abstract
<p>Article history: Received 12-06-2025 Revised 13-08-2025 Accepted 13-11-2025 Published 14-11-2025</p> <p>How to cite: Mustaqim, M. Y., Rosyidi, U., Takdir, M., Huda, S. A., & Akbar, R. N. (2025). Hierarchical-Reflective Learning Strategy in Santri Mentorship: Analyzing the Tiered Leadership Model as Pedagogical Technology in the Dormitory of Pondok Modern Darussalam Gontor. <i>Edcomtech: Jurnal Kajian Teknologi Pendidikan</i>, 10(2), 205–219. https://doi.org/10.17977/um039v10i22025p205-219</p> <p>© The Author(s)  This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.</p>	<p>Studi ini menganalisis model kepemimpinan berjenjang di asrama Pondok Modern Darussalam Gontor (PMDG) sebagai strategi pembelajaran hierarkis-reflektif dalam pembinaan santri. Penelitian ini menggunakan desain studi kasus deskriptif kualitatif dengan pengumpulan data melalui wawancara mendalam, observasi partisipan, dan analisis dokumen yang melibatkan 18 informan kunci dari berbagai kelompok pemangku kepentingan. Hasil penelitian menunjukkan bahwa sistem tersebut berfungsi sebagai teknologi pedagogis yang terintegrasi, yang mensinergikan struktur hierarkis yang sistematis, mesin siklus pengalaman-refleksi (POAC/muhasabah), serta landasan nilai-nilai Islam. Integrasi ini mentransformasikan asrama menjadi laboratorium pembelajaran yang dinamis, di mana santri secara bertahap mengembangkan kompetensi kepemimpinan melalui praktik autentik yang berlandaskan refleksi etis. Model ini secara efektif menjembatani pendidikan kepemimpinan teoretis dengan pembentukan karakter moral, sehingga menghasilkan pemimpin yang disiplin, mandiri, dan berorientasi pada pengabdian. Penelitian ini menyimpulkan bahwa model PMDG menawarkan kerangka kerja yang dapat direplikasi untuk pedagogi kepemimpinan berbasis nilai. Penelitian selanjutnya disarankan untuk menggunakan desain longitudinal dan komparatif guna memvalidasi dampak jangka panjangnya serta mengeksplorasi potensi integrasi dengan teknologi digital tanpa mengorbankan inti relasional dan reflektifnya.</p> <p>Kata Kunci: <i>Pembelajaran Hierarkis-Reflektif; Teknologi Pedagogis; Pembinaan Santri; Model Kepemimpinan Berjenjang; Siklus Pembelajaran Berbasis Pengalaman</i></p> <p>Abstract <i>This study analyzes the tiered leadership model in the dormitory of Pondok Modern Darussalam Gontor (PMDG) as a hierarchical-reflective learning strategy for santri mentorship. Employing a qualitative descriptive case study design, the research collected data through in-</i></p>

	<p><i>depth interviews, participant observation, and document analysis involving 18 key informants across stakeholder groups. The findings reveal that the system functions as an integrated pedagogical technology, synergizing a structured hierarchical scaffold, a cyclic experiential-reflective engine (POAC/muhasabah), and a foundation of Islamic values. This integration transforms the dormitory into a dynamic learning laboratory, where santri progressively develop leadership competencies through authentic practice grounded in ethical reflection. The model effectively bridges theoretical leadership education with moral character formation, cultivating disciplined, autonomous, and service-oriented leaders. The study concludes that the PMDG model presents a replicable framework for value-based leadership pedagogy. Future research should employ longitudinal and comparative designs to further validate its long-term outcomes and explore potential integrations with digital technologies without compromising its relational and reflective core.</i></p>
	<p>Keywords: <i>Hierarchical-Reflective Learning; Pedagogical Technology; Santri Mentorship; Tiered Leadership Model; Experiential Learning Cycle</i></p>

INTRODUCTION

Islamic boarding schools (*pesantren*) in Indonesia have long been recognized as critical institutions for character formation, integrating spiritual, moral, and intellectual education (Abidin, 2020). Among these, Pondok Modern Darussalam Gontor stands out for its distinctive educational model, which systematically blends modern managerial principles with traditional Islamic values. A cornerstone of this model is its tiered student leadership system within the dormitory. This structured approach functions not merely as an administrative tool but as a core pedagogical technology (Rahman, 2019). This system transforms the dormitory from a mere living quarter into a dynamic learning laboratory for leadership, where theoretical knowledge is constantly tested and refined through practical, experiential application.

The current educational landscape increasingly demands learning models that foster not only cognitive mastery but also complex soft skills such as leadership, responsibility, and collaborative problem-solving (Kumar, 2025). In practice, however, many educational institutions struggle to create authentic, structured environments where students can progressively assume and reflect on leadership roles (Northouse, 2019). There is often a gap between leadership theory presented in the classroom and the opportunity for its sustained, guided practice. This disconnect can result in graduates who are theoretically informed but lack the practical competencies and reflective depth required for effective, ethical leadership in complex social contexts.

Ideally, an educational system should seamlessly integrate leadership development into its daily fabric, providing scaffolded opportunities for practice accompanied by continuous mentorship and reflection. Such an environment would allow students to internalize leadership as a learned, reflective practice rather than an inherited trait or a mere positional authority (Hidayat, 2017). The pedagogical design would need to be intentional, moving students through increasing levels of responsibility while providing a robust support system for feedback and ethical grounding, thereby aligning practical skill acquisition with character development (Wijoyo et al., 2016).

Pondok Modern Darussalam Gontor's dormitory-based leadership system presents a compelling case of such an integrative approach. Known as a *self-government system*, it delegates substantial managerial authority to students (*santri*), who hold various leadership positions within a hierarchical structure, ranging from room and section (*rayon*) coordinators to central activity committees (Elyunusi et al., 2022). This structure creates a real-world organizational setting in which santri engage directly in planning, organizing, implementing, and supervising communal life, thereby enacting the core functions of educational management.

The system operates as a form of *hierarchical-reflective learning*, in which progression through leadership tiers corresponds to increasing task complexity and depth of reflective practice. This scaffolding principle resonates with hierarchical teaching systems modeled in other fields, which optimize learning pathways through structured mentorship (Dashkina & Tarkhov, 2017). Each tier in Gontor is designed not as an isolated position but as an integrated component of a larger pedagogical sequence. This sequential design ensures that leadership learning is cumulative, with experiences at lower levels providing the foundational skills and ethical understanding necessary for more significant responsibilities (Syamsuddin, 2020). The hierarchy, therefore, is fundamentally pedagogical, structuring the pace and scope of experiential learning.

Central to this model's effectiveness is the role of teacher mentorship and supervision (*ustadz*). While santri manage daily affairs, the *ustadz* provides overarching guidance to ensure the system's alignment with the pesantren's core values. This creates a dual dynamic of autonomy and guidance, in which santri learn through decision-making and consequences, yet within a safety net of Islamic ethics and pedagogical oversight (Rahman, 2019). The mentorship component transforms practical experiences into profound learning moments, linking action with spiritual and ethical reflection, a process central to reflective pedagogy (Ip et al., 2012).

The pedagogical technology embedded in this model lies in its structured experiential learning cycle. Santri do not simply hold titles; they are immersed in a continuous loop of action, observation, and reflection on their managerial and interpersonal performance. This cycle mirrors Kolb's (1984) experiential learning theory but is deeply contextualized within an Islamic framework, in which reflection (*tadabbur*) is directed toward both practical outcomes and spiritual accountability. The dormitory environment, with its myriad social and logistical challenges, provides the authentic, high-stakes context necessary for this deep learning, akin to collaborative methods like the Mentored Flip-Jigsaw used in other disciplines (Roosbehi et al., 2025).

Furthermore, the system functions as a powerful mechanism for cultivating the pesantren's organizational culture and hidden curriculum. The shared experience of governing and being governed by peers fosters a strong sense of collective responsibility (*ukhuwah islamiyah*) and institutional belonging (Alamin et al., 2024). The values underpinning the leadership structure become lived realities rather than abstract concepts, as santri daily negotiate the balance between authority and service, discipline and compassion, and individual initiative and collective good (Hidayat, 2017). This cultural immersion is a critical, yet often overlooked, dimension of the model's pedagogical output.

Despite the recognized success of Gontor in shaping leader-characters, existing scholarly focus has predominantly been on personal character outcomes or hidden curricula (Hidayat, 2017; Alamin et al., 2024; Elyunusi et al., 2022), with limited exploration of dialogic and critical pedagogical dimensions found in other Islamic schools (Radino & Mubarak, 2025). A

significant gap remains in critically analyzing the tiered leadership model as a deliberate pedagogical technology a designed system of hierarchical-reflective learning and mentorship. There is limited research that examines its operational mechanisms, scaffolding strategies, and theoretical contributions to educational leadership, particularly from an Islamic pedagogical perspective.

Therefore, this article aims to analyze the tiered leadership model in the Pondok Modern Darussalam Gontor dormitory through the lens of a *hierarchical-reflective learning strategy*. It seeks to deconstruct how the system is engineered as a pedagogical technology for santri mentorship, examining its structural hierarchy, its integrated cycle of experience and reflection, and the role of Islamic values as its foundational framework. By doing so, this study aims to contribute to broader discussions of innovative pedagogical strategies that effectively integrate leadership theory, ethical practice, and character education within holistic learning environments.

METHOD

Research Design and Approach

This study employed a qualitative descriptive approach with a single case study design focused on Pondok Modern Darussalam Gontor. This methodological choice was guided by the research objective to gain a deep, contextual understanding of the intricate processes, social meanings, and pedagogical values inherent in the pesantren's unique tiered student leadership system, rather than to test pre-determined hypotheses. The case study design is recognized as particularly suitable for investigating such a complex, contemporary phenomenon within its authentic real-life context, allowing for a holistic exploration (Yin, 2018). This approach facilitated an interpretive analysis of the dynamic interplay between formal structure, organizational culture, and embodied leadership values, capturing both the operational mechanisms and the subjective lived experiences of the participants (Creswell & Poth, 2016).

Research Setting and Participants

The research was conducted at Pondok Modern Darussalam Gontor in Ponorogo, East Java, a pioneering modern Islamic boarding school renowned for implementing a comprehensive *self-government system* through a structured, hierarchical student leadership model within its dormitories. Participants were selected via purposive sampling to ensure they held direct knowledge and experience relevant to the research focus. The final sample consisted of 18 key informants, strategically comprising four distinct stakeholder groups to enable data triangulation from multiple perspectives: (1) three Mentors/Guiding Staff who oversee the system; (2) five Dormitory/Rayon-Level Student Leaders who execute daily management; (3) four Organizational/Lajnah-Level Student Leaders from functional units; and (4) six regular, Non-Leader Santri who are the primary subjects of the leadership process. Recruitment continued until theoretical saturation was achieved, signifying that no new significant themes emerged from subsequent interviews (Guest, Bunce, & Johnson, 2006).

Data Collection

Data collection was conducted during two intensive field visits, spanning four days and one week, using a triangulation strategy to ensure comprehensiveness and construct validity (Denzin, 2017). The primary method was in-depth, semi-structured interviews with all participants, designed to elicit their personal perceptions, detailed experiences, and interpretations of the mentorship model's underlying values. This was complemented by sustained participant observation of daily routines, leadership meetings, disciplinary sessions,

and social interactions within the dormitory to understand the system's practical enactment. Furthermore, document analysis of official pesantren materials, including organizational charts, dormitory manuals, and activity records, provided essential context and corroborated the empirical data.

Data Analysis and Trustworthiness

Data analysis followed an iterative, interactive process as outlined by Miles, Huberman, and Saldaña (2019). The analysis involved three concurrent streams of activity: data condensation, where raw data from transcripts, field notes, and documents were systematically sorted and focused; data display, where the condensed data were organized into thematic matrices and narratives to visualize patterns and relationships; and conclusion drawing/verification, where emerging themes concerning hierarchical learning as pedagogical technology were continuously refined and checked against the complete dataset to ensure their accuracy and robustness.

The trustworthiness of the research was rigorously upheld in accordance with the criteria established by Lincoln and Guba (1985). Credibility was ensured through method and source triangulation, prolonged field engagement, and member checking with participants. Providing thick, detailed descriptions of the research context and participants supports transferability. Dependability was maintained by documenting a transparent, auditable research process and decision trail. Finally, confirmability was achieved by grounding all interpretations and conclusions in the empirical evidence collected while maintaining researcher reflexivity.

The study adhered to stringent ethical standards in social research. Informed consent was obtained from all participants, and formal institutional permission was obtained from the pesantren's mentoring division. All participants were guaranteed confidentiality, their right to withdraw at any stage without consequence, and the anonymization of any identifying information in subsequent publications and reports.

RESULT AND DISCUSSION

The findings from this study reveal that the tiered leadership model within the dormitory system of Pondok Modern Darussalam Gontor (PMDG) transcends its conventional administrative function. It operates as a sophisticated, culturally-embedded pedagogical technology, a term we propose to describe a systematic, replicable, and value-laden educational apparatus designed to produce specific learning outcomes. This discussion posits the model as a Hierarchical-Reflective Learning Strategy, arguing that its efficacy lies in the synergistic integration of three interconnected pillars: a structured hierarchical scaffold, a cyclic process of experiential and reflective action, and a value-based cultural foundation.

Analysis of Bibliometric Research

In summary, the bibliometric findings reveal a clear and dynamic research trajectory. The intellectual discourse has evolved from foundational studies on *pesantren* and modernity toward a concentrated, contemporary investigation of leadership models as a pedagogical technology for character education. This positions Pondok Modern Darussalam Gontor as a seminal case study in global discussions on value-based education, Islamic educational leadership, and the institutional cultivation of moral character in modernizing societies.

Tiered Structure as a Scaffold for Progressive Leadership Ontogeny

The organizational structure of the OPPM, Lajnah, Rayon, and general members transcends a mere administrative hierarchy; it functions as a carefully designed pedagogical scaffold. This system facilitates what Vygotsky might term a "zone of proximal development" for leadership, where responsibilities are incrementally increased in complexity (Drake, 2021). A *santri* begins as an executing member under close supervision, progresses to leading a small, defined unit (Rayon), then to managing a specialized function (Lajnah), and potentially to strategic coordination (OPPM). This graded exposure aligns with Bush's (2018) distributed leadership, but with a critical, intentional pedagogical twist: distribution is not for efficiency alone but for sequenced learning. Each tier serves as a distinct "classroom" where specific competencies, team coordination at the Rayon level, and strategic planning at the OPPM level are cultivated. This ensures that leadership skills are not taught abstractly but are acquired through graduated practice, progressing from simple to complex tasks, consistent with principles of instructional design (Gagné, 1985).

This observed phenomenon resonates strongly with contemporary leadership development literature, which supports the efficacy of such structured, multi-tiered approaches. A robust two-tiered leadership development program for family medicine residents, featuring basic and advanced tracks with progressively complex activities like mentorship and leadership projects, demonstrated significant improvements in leadership knowledge, skills, and behaviors (Cook et al., 2024). Similarly, the Leadership Pipeline Model (LPM) provides a formalized framework for transitioning individuals across hierarchical levels, from frontline roles to executive positions, enhancing engagement and succession planning (Ganesan et al., 2025). The *pesantren* model operationalizes this pipeline organically, where each structural tier, General Member, Rayon, Lajnah, and OPPM, represents a distinct passage in the leadership pipeline, ensuring experiential learning is scaffolded appropriately.

Furthermore, the intentional design of this tiered scaffold aligns with the concept of Developmental Threshold Zones (DTZs), which integrate Vygotsky's zone of proximal development with narrative coaching to create transformative growth experiences for leaders (Drake, 2021). The progression through each organizational tier can be viewed as navigating a series of DTZs, in which challenges are calibrated to be just beyond current capabilities, with support from peers and mentors in the preceding tiers. This structured progression also mirrors findings from organizational studies, in which deliberate structural changes, such as defining clear leadership levels and integrating managers into strategic advisory bodies, can positively affect leadership perceptions and promote more transformational leadership practices (Swart et al., 2025).

The pedagogical intent behind this tiered structure extends its application beyond administration into curriculum leadership. Just as curriculum leadership at university, school, and classroom levels differentially impacts the development of specific competencies in pre-service teachers (Xiong & Lim, 2015), the OPPM, Lajnah, and Rayon structure provides a graduated curriculum for leadership ontogeny. Each level provides a customized "curriculum"

of responsibilities, progressing from task execution to unit management, functional specialization, and, finally, strategic oversight. This ensures development is both structured and flexible, tailored to the competencies required at each stage.

In conclusion, the multi-tiered organizational chart of the *pesantren* is fundamentally a scaffold for the ontogeny of progressive leadership. It embodies a practical synthesis of developmental theory (Vygotsky; Drake, 2021), structured progression models (Ganesan et al., 2025), and curriculum leadership principles (Xiong & Lim, 2015). By providing a clear, experiential pathway from simple to complex leadership tasks, the system ensures that leadership development is deeply embedded in practice, effectively preparing *santri* for increasingly complex roles within and beyond the *pesantren* community.

POAC Functions as a Cyclic Engine for Experiential-Reflective Learning

The findings of this study demonstrate that the *santri*'s enactment of managerial functions transforms classical management theory into a dynamic, lived experiential learning cycle (Kolb, 2014). This process aligns with and is powerfully explained by Kolb's (2014) model, which posits learning as a four-stage cycle integrating Concrete Experience (CE), Reflective Observation (RO), Abstract Conceptualization (AC), and Active Experimentation (AE). The POAC (Planning, Organizing, Actuating, Controlling) framework serves as the pedagogical engine that operationalizes this cycle within the Islamic boarding school (*pesantren*) context. Specifically, the Planning and Organizing phases correspond to the stages of Abstract Conceptualization and Active Experimentation, where *santri* learn to translate theoretical ideas into structured, actionable plans while negotiating resources and roles. The Actuating phase constitutes the core of Concrete Experience, providing the "real, messy context" where leadership theories are tested through peer management, rule enforcement, and team motivation.

The critical, integrative component of this model is found in the Controlling phase, enriched by the Islamic practice of *muhasabah* (collective and self-evaluation). This phase elevates the process beyond mere administrative supervision, embodying the essential Reflective Observation stage. Here, the model's reflective dimension becomes paramount, as noted in broader educational literature where reflective activities are crucial for closing the experiential learning loop and connecting practice with theory (Hughes & Scholtz, 2015; Paulsen, 2020). Supervision from peers and teachers, coupled with *muhasabah*, forces a systematic analysis of action through both moral and practical lenses, transforming successes and failures into learning. This continuous POAC cycle thereby embeds a robust habit of reflective practice (Schön, 1983) into leadership development, where "controlling" functions less as punitive surveillance and more as a generative feedback mechanism for continuous improvement.

This study's insights resonate with applications of experiential learning across diverse fields, confirming the universality of the cyclic engine. In business and MBA education, for instance, experiential learning through simulations and internships is valued for developing diagnostic capabilities, critical thinking, and strategic intuition (Kim et al., 2025), mirroring the *santri*'s development of practical leadership acumen. Similarly, in engineering education, formalizing experiential and reflective components through practicums, reflective journals, and structured debriefing is essential for connecting theoretical concepts with practical application (Underwood, 2017; Wynne, 2010). The use of high-fidelity simulations in fields like psychology and military training, followed by guided reflection (Wetzler et al., 2021), parallels the *pesantren*'s use of real peer-management scenarios as a concrete experience for

learning. Even in large-class settings, interdisciplinary and performative pedagogical approaches have been successfully employed to foster engagement and experiential learning (Donovan & Hood, 2021), suggesting the scalability of principles observed in this study.

However, implementing such cycles requires careful facilitation. As noted in other contexts, the reflective phase must be structured effectively to avoid superficial outcomes or emotional distress (Brackenreg, 2004). The *pesantren* model addresses this by institutionalizing reflection through *muhasabah* and layered mentorship, ensuring that reflection is both structured and culturally meaningful. This underscores a key conclusion: the POAC framework, when integrated with a reflective practice such as *muhasabah*, effectively functions as a contextualized manifestation of Kolb's experiential learning cycle. It not only enhances practical skills and critical thinking, as seen in sport management (Yoon & Coble, 2024) and software engineering education using role-playing games (Wu et al., 2016), but also grounds leadership development in a continuous process of experiential testing and moral reflection, preparing santri for real-world leadership challenges.

Islamic Values as the Foundational Operating System (Hidden Curriculum)

The internalization of core Islamic values such as *Ikhlas* (*sincerity*), *Kesederhanaan* (*modesty*), *Ukhuwah* (*brotherhood*), and *Kebebasan yang Bertanggung Jawab* (*responsible freedom*) serves as the cultural operating system on which the hierarchical scaffold and POAC cycle operate. This aligns closely with Deal and Peterson's (2010) concept of the "hidden curriculum," in which the deepest cultural norms are transmitted through implicit practices rather than explicit instruction. At PMDG, these values are not supplementary lessons; they constitute the primary criteria for evaluating leadership effectiveness. A leader is deemed successful not only if a task is completed but also if it is accomplished with sincerity, fosters brotherhood, and respects ethical boundaries. This value system mitigates the potential pitfalls of hierarchical structures, such as the abuse of power or toxic competition, by reframing authority as *amanah* (a sacred trust) and service. Consequently, it transforms the educational environment from a mere functional space into a moral learning community (Sergiovanni, 1994), positioning the model within the discourse of *Insani Leadership* (Mulyadi, 2020), where spiritual and emotional intelligence are prerequisites for effective managerial action.

This conceptualization is robustly supported by empirical research across diverse Islamic educational contexts, illustrating how Islamic values function as a foundational operating system. The literature reveals that the hidden curriculum of Islamic values is instrumental in character and moral formation, where interactions, institutional practices, and extracurricular activities instill integrity, ethics, responsibility, empathy, and justice (Obaid et al., 2024). This process mirrors the operationalization of values at PMDG, where leadership is evaluated through an ethical lens. Furthermore, the integration extends beyond general character into specific disciplines, such as accounting education, where practices like prayer and *tawakal* (trust in God) aim to synthesize professional competence with religious principles (Hanny & Rizal, 2020).

The hidden curriculum also proves vital in fostering inclusive and moderate learning environments. In inclusive *madrasas*, values such as empathy, gratitude, and compassion are embedded in daily rituals and charitable acts, thereby supporting the holistic development of students with special needs (Bakti et al., 2025). Simultaneously, institutions in Aceh emphasize the internalization of moderate values that promote proportionality, non-discrimination, and respect for diversity, thereby enhancing social cohesion (Junaidi et al.,

2025; Mardatillah et al., 2025). This aligns with the function of *Ukhuwah* at PMDG in mitigating hierarchical pitfalls and building community.

Pedagogically, Islamic values reshape learning methodologies. In cooperative learning, principles of mutual assistance and sincerity transform collaboration into both an academic and spiritual act (Usman et al., 2025). Similarly, in vocational education, Islamic teachings on stewardship drive green skill development through practices like tree planting and zero-waste policies (Fauziah et al., 2024). These examples show how the value-based operating system directs practical action toward ethical ends, much like the framework at PMDG.

At the leadership level, Islamic values fundamentally shape beliefs and practices, informing a leadership paradigm centered on service and social cohesion that transcends socio-religious boundaries (Brooks & Mutohar, 2018). This echoes the *Insani* Leadership approach. From primary education onward, structured activities such as congregational prayer and Quranic recitation instill piety, discipline, and social consciousness early (Tsani et al., 2024), establishing a foundational operating system for subsequent development. While evaluations, such as those conducted at SMP Unismuh Makassar, demonstrate effective cultivation of Islamic character traits, such as honesty, they also highlight areas for improvement in teacher training and technological integration for the internalization of values (Ferdinan et al., 2025).

In conclusion, Islamic values function as a pervasive, hidden curriculum and a foundational operating system across educational contexts, from primary through higher education. They shape character, guide pedagogy, inform leadership, and foster inclusive, moderate, and environmentally conscious communities. This extensive integration, through both formal and informal practices, supports holistic educational goals that align academic and operational excellence with spiritual and moral development. The PMDG model, with its emphasis on *Ikhlas*, *Kesederhanaan*, *Ukhuwah*, and *Kebebasan yang Bertanggung Jawab* as evaluative criteria for leadership, embodies this synthesis, demonstrating how a value-driven hidden curriculum can effectively structure institutional life and mitigate systemic risks.

Synthesis: The Hierarchical-Reflective Learning Strategy as Integrated Pedagogical Technology

This study positions the Hierarchical-Reflective Learning Strategy (HRLS) as an integrated pedagogical technology, exemplified by the PMDG model. The findings demonstrate that the model's success in fostering efficient, disciplined, and autonomous dormitory management is not merely an administrative outcome but direct evidence of its efficacy as a character-forming pedagogy. This discussion synthesizes these findings with established literature on reflective and hierarchical learning to articulate the theoretical and practical foundations of HRLS as a coherent educational technology.

The core strength of the PMDG model and of the HRLS by extension lies in the interdependent synergy of its three pillars: a clear hierarchy, the iterative Plan-Observe-Act-Cycle (POAC), and a grounding system of values. This interdependence mirrors the integrative function of pedagogical technology, where structure, process, and purpose are fused. The hierarchy provides the essential, safe, and structured pathway for progressive skill acquisition, aligning with Tolboom's (2004) organizational model for digital learning environments, which demonstrates that a hierarchical decomposition facilitates better task distribution and management a principle applicable to both technical systems and human developmental frameworks. Within this structure, the POAC cycle operationalizes reflective practice as the active, iterative engine for mastery. This aligns with extensive research

affirming that structured reflection, such as through journals or debriefing models, enhances professional knowledge, self-awareness, and adaptive competence (Hampton & Morrow, 2003; Goy et al., 2022; Sari et al., 2021).

Furthermore, the model's integration of a normative value compass directly addresses a critical gap often observed in secular leadership education, where management skills and character development are treated as separate domains. The HRLS, as demonstrated by PMDG, treats them as inseparable. This fusion is facilitated through multilayered reflection activities, including self-reflection, shared reflection, and meta-reflection, which have been shown to increase awareness of self-regulated learning (SRL) components and to promote cyclical SRL processes (Kim, 2021). In this context, leadership is democratized and practiced, not merely theorized, and failure is reframed as a vital pedagogical resource within a supportive reflective structure. This approach fosters what Marchi and Paganotti (2025) term "professional self-actualization," where autonomy, competence, and relatedness are developed through reflective learning pathways.

The integration of technology, a key component of modern pedagogical technology, amplifies this reflective-hierarchical system. Digital tools, such as e-portfolios and photographs, can enhance reflective thinking skills by making learning visible and subject to analysis (Weerakoon, 2023). Similarly, integrating computational thinking with reflective diagnostics has been shown to improve knowledge construction and problem-solving in programming education significantly (Wu et al., 2025). These technological integrations support the POAC cycle, providing tangible data for observation and reflection, thereby closing the learning loop more effectively.

Finally, the collaborative and interdisciplinary nature of the HRLS is crucial for its holistic impact. The model encourages collaborative reflection through peer feedback and group discussions, thereby deepening critical thinking and shared accountability (Feng et al., 2025). This is evident in collaborative professional development programs, where reflective learning enhances pedagogical, linguistic, and cultural competencies across borders (Mair, 2025), and in service-learning contexts that link academic learning to personal and societal growth (Gibson et al., 2011).

In conclusion, the Hierarchical-Reflective Learning Strategy, as operationalized by the PMDG model, constitutes a sophisticated pedagogical technology. It systematically combines a hierarchical structure for safety and progression, an iterative reflective cycle for skill and cognitive development, and a value-based compass for character formation. The observed outcomes in dormitory management efficiency, discipline, and organizational autonomy are natural byproducts of this integrated system. The literature strongly supports the conclusion that an integrated approach that leverages structured reflection, collaborative learning, and strategic use of technology leads to enhanced learning outcomes, sustainable professional growth, and the adaptable, innovative mindset required of future leaders and educators (Lu, 2015; Morales-Maure et al., 2025). This study, therefore, contends that the HRLS provides a replicable framework for educational designs where practical skill acquisition and deep character development are mutually reinforcing goals.

Theoretical Implications and Future Research Directions

This analysis moves the discussion beyond descriptive case studies of pesantren management. It proposes a theoretical framework, the Hierarchical-Reflective Learning Strategy, that can be examined in other educational contexts seeking to integrate leadership training with moral formation. It challenges contemporary educational literature to view

traditional, value-based systems not as archaic but as potential repositories of sophisticated pedagogical technologies.

Future research should employ longitudinal designs to track the long-term leadership outcomes of alumni compared to graduates from other systems. Comparative studies with other Islamic boarding schools (*pesantren*) or value-based institutions (e.g., military academies, specific liberal arts colleges) could further isolate the active components of this model. Additionally, research could explore how digital technologies might be integrated into this analog, relationally-intensive system without diluting its reflective and value-based core.

The tiered leadership model in the Pondok Modern Darussalam Gontor dormitory is more than an organizational tool. It is a robust, culturally situated Hierarchical-Reflective Learning Strategy that functions as a pedagogical technology for developing leaders of character. By seamlessly scaffolding experience, institutionalizing reflective practice through management cycles, and grounding all action in a deep value system, it offers a compelling alternative to abstract, classroom-based leadership education. Its study provides significant insights for the fields of educational leadership, Islamic education, and character pedagogy, demonstrating how structure, process, and culture can be engineered to achieve profound educational ends.

CONCLUSION

This study concludes that the hierarchical leadership system at Pondok Modern Darussalam Gontor functions not only as a managerial instrument but also as a hierarchical-reflective learning strategy integrated into santri mentorship. This pedagogical approach harmonizes management theory, Islamic values, and social practice within the dormitory environment, enabling santri to act as both learners and active leaders in shaping organizational culture.

First, the tiered leadership structure (OPPM, lajnah, rayon, and members) serves as a real-world framework for reflective leadership practice, tailored to the maturity and capability levels of santri. This fosters responsibility, autonomy, and coordination skills through structured experiential learning.

Second, the application of classical management functions (*planning, organizing, actuating, controlling*) within santri activities demonstrates how pedagogical technology can translate modern management principles into a religious and moral context. Under the ustadz's guidance, santri are trained to become effective and ethical leaders.

Third, the core values of the pesantren, sincerity, simplicity, independence, Islamic brotherhood, and responsible freedom, are internalized through daily practice and mentorship, forming a robust hidden curriculum that underpins character formation within the tiered leadership model.

Fourth, the effectiveness of this model is evident in the enhanced discipline, organizational efficiency, and strong social solidarity within the dormitory. Santri leadership operates as a mentorship mechanism that maintains order, encourages participation, and cultivates a spirit of service.

Table 1. Components of the Hierarchical-Reflective Learning Strategy in Santri Leadership

Tier	Role	Learning Focus	Reflective Practice
OPPM	Central Coordination	Strategic Planning & Oversight	Macro-level organizational reflection

Lajnah	Committee Leadership	Project Management & Team Guidance	Mid-level evaluative mentoring
Rayon	Unit Supervision	Daily Operations & Peer Mentorship	Micro-level situational reflection
Anggota	Participatory Member	Task Execution & Self-Regulation	Individual reflective development

Thus, the tiered leadership model at Pondok Modern Darussalam Gontor represents a pedagogical technology that synergizes educational management, Islamic organizational culture, and spiritual mentorship, oriented toward the development of *insan kamil*, the complete individual, through structured, reflective, and hierarchical learning within dormitory life.

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