

Effectiveness of Merdeka Curriculum Implementation in Learning Practices at Madrasah Ibtidaiyah

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Abstract

This study examined the effectiveness of Merdeka Curriculum implementation in learning practices at MI Miftahul Ulum Kanigoro Pagelaran, Malang Regency. A qualitative single-case study design was used. Twelve informants the madrasah principal, six classroom teachers, three curriculum development team members, and two administrative staff members were selected purposively. Data were collected through 10 classroom observations, 12 in-depth interviews, and analysis of curriculum, teaching-module, Learning Objective Flow, and P5 documents. The data were analyzed through data reduction, data display, and conclusion drawing and verification, with source and method triangulation used to strengthen credibility. Effectiveness was examined in terms of implementation fidelity, stakeholder-perceived usefulness, and organizational readiness. The findings showed that curriculum implementation was procedurally well established but uneven across classrooms. Planning involved multiple stakeholders, although decision-making authority was concentrated primarily among the principal and curriculum team. Student-centered learning was evident in 7 of 10 observed sessions, while the remaining sessions were largely teacher led. The P5 program followed a structured planning, implementation, and exhibition cycle, but the study did not directly measure student character or competency outcomes. Implementation was supported by proactive leadership, teacher collaboration, training, and mentoring. Persistent constraints included uneven teacher capacity to develop contextual teaching modules and assessments, limited access to learning technology, administrative workload, and restricted human resources. Targeted support for module development, technology access, and workload management is therefore needed to improve implementation consistency.

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Introduction

Curriculum quality is central to educational quality because curriculum design directly shapes classroom practice and learning outcomes (Fauzan & Arifin, 2022; Khoirurrijal et al., 2022). In Indonesia, the Merdeka Curriculum gives schools and teachers greater flexibility to design learning programs that respond to students' needs and local contexts. It is intended to strengthen twenty-first-century competencies, including problem-solving, creativity, and collaboration (Ainia, 2020; Tuerah & Tuerah, 2023). However, as with any curriculum reform, policy design alone does not ensure effective implementation; effectiveness depends on how the curriculum is enacted in everyday classroom practice (Fullan, 2020).

Research on Merdeka Curriculum implementation has developed along three main strands. The first examines planning-level changes, including the development of Learning Outcomes

(*Capaian Pembelajaran* [CP]), Learning Objectives (*Tujuan Pembelajaran* [TP]), and Learning Objective Flow (*Alur Tujuan Pembelajaran* [ATP]), while showing that teachers often struggle to translate these documents into independently developed instructional tools (Ariesanti et al., 2023). The second focuses on enabling conditions, particularly school leadership, collaborative culture, and teacher readiness (Lubis & Abdul, 2024; Wahyudi et al., 2024). The third examines student-facing practices, such as differentiated and project-based learning, and their relationship to student participation and engagement (Juita HR et al., 2024; Qur'ani et al., 2024). Studies in elementary schools and madrasah have also documented varied implementation patterns and recurring practical constraints (Alimuddin, 2023; Atikoh, 2023; Dwi Fadilla & Febrianta, 2024). Nevertheless, these strands rarely intersect within a single study. Planning studies often do not examine classroom enactment, while studies of enabling conditions seldom connect systematically with the *Projek Penguatan Profil Pelajar Pancasila* (P5). This fragmentation limits understanding of how planning, classroom implementation, institutional support, and P5 activities interact within one educational setting.

This gap is especially relevant in madrasah ibtidaiyah settings. Much of the available research is situated in general elementary schools, whereas madrasah operate under the Ministry of Religious Affairs and may face distinct administrative, professional-development, and resource conditions (Atikoh, 2023; Wahyudi et al., 2024). Consequently, findings from general-school contexts cannot automatically be transferred to madrasah settings.

This study examined Merdeka Curriculum implementation at MI Miftahul Ulum Kanigoro Pagelaran, Malang Regency. The madrasah has implemented the curriculum since 2023 and involves the principal, teachers, curriculum development team, school committee, and foundation administrators in planning. Its implementation history provided an opportunity to examine established practices rather than only early-adoption dynamics. The study therefore investigated four interrelated dimensions: curriculum planning, classroom learning practices, P5 implementation, and the supporting and inhibiting factors that shaped implementation. Particular attention was given to variation between formal plans and classroom enactment rather than assuming uniform implementation success.

Method

This study used a qualitative single-case study design (Creswell & Poth, 2017; Sugiyono, 2022), bounded by one institution—MI Miftahul Ulum Kanigoro Pagelaran, Malang Regency—and the first semester of the 2025/2026 academic year. The design was selected to provide an in-depth account of how the Merdeka Curriculum was implemented in classroom learning practices. Effectiveness was examined using three prespecified criteria: (1) *implementation fidelity*, referring to the extent to which planned curriculum documents, including the Madrasah Operational Curriculum (*Kurikulum Operasional Madrasah* [KOM]), ATP, and teaching modules, were reflected in classroom practice; (2) *stakeholder-perceived usefulness*, referring to participants' assessments of the curriculum's relevance to student needs; and (3) *organizational readiness*, referring to the availability of training, collaborative planning, resource allocation, and other supporting structures. The study did not measure direct student learning outcomes.

The site was selected purposively because it was among the first madrasah in the district to adopt the Merdeka Curriculum and had maintained P5 implementation documentation since 2023.

These characteristics enabled the study to examine a relatively established implementation process rather than an initial adoption phase. The first author served as the primary data collector and conducted eight weeks of fieldwork from August to September 2025. The researcher had no prior institutional affiliation with the site.

Participants were selected purposively based on their direct involvement in curriculum planning or implementation. The 12 informants comprised the madrasah principal, six classroom teachers representing Grades 1–6, three members of the curriculum development team, and two administrative staff members. Eligibility required at least one full academic year of involvement in Merdeka Curriculum implementation at the site. Each interview lasted 45–70 minutes ($M = 55$ minutes) and was audio-recorded with informed consent. Data saturation was monitored throughout data collection; no new themes emerged after the tenth interview, and two additional interviews were conducted to confirm saturation.

Data were collected through three complementary techniques:

1. Classroom observations. Ten sessions across four grade levels were observed for approximately 350 minutes in total, with attention to the alignment between curriculum plans and enacted learning activities.
2. In-depth interviews. Twelve interviews totaling approximately 660 minutes were conducted with the principal, classroom teachers, curriculum development team members, and administrative staff. The interviews addressed curriculum planning, classroom implementation, P5 activities, institutional support, and implementation constraints.
3. Document analysis. The documents reviewed included the KOM, eight teaching modules, six ATP documents, and three P5 implementation reports.

Data were analyzed iteratively through data reduction, data display, and conclusion drawing and verification. An initial codebook containing 18 deductive codes was developed from the three effectiveness criteria and refined inductively as additional patterns emerged; two codes were added during analysis. The first author coded all data, and the second author independently cross-checked 20% of the interview transcripts. Disagreements were resolved through discussion, producing 87% intercoder agreement. Negative and disconfirming cases, including reports of incomplete or difficult implementation, were retained and examined alongside positive accounts. An audit trail consisting of transcripts, coding memos, and records of analytic decisions was maintained.

Credibility was strengthened through source triangulation, which compared accounts from the principal, teachers, curriculum team members, and administrative staff, and method triangulation, which compared interview data with observation notes and documentary evidence. When sources diverged—for example, when planning documents did not fully correspond with observed classroom practice—the discrepancy was retained and analyzed as a finding rather than resolved in favor of the more positive account.

Result and Discussion

Result

Findings from classroom observations, interviews, and document analysis were interpreted using the three effectiveness criteria established in the Method section: implementation fidelity, stakeholder-perceived usefulness, and organizational readiness. The evidence indicates that MI Miftahul Ulum Kanigoro Pagelaran had established the principal administrative and pedagogical structures required for the Merdeka Curriculum, although implementation quality varied across

components and teachers. Planning documents, training records, P5 files, classroom observations, and participant accounts showed that implementation had progressed beyond an introductory stage. Divergent evidence appeared in decision-making authority, continuity of training, consistency of student-centered instruction, teacher capacity to prepare contextual modules and assessments, and the availability of technological and human resources. Table 1 summarizes the principal findings.

Table 1. Summary of Merdeka Curriculum Implementation at MI Miftahul Ulum Kanigoro Pagelaran

Component	Sources of Evidence	Main Finding	Interpretation
Curriculum planning	KOM, meeting records, and interviews	Multiple stakeholders were involved, but final priorities were predominantly determined by the principal and curriculum team.	Participation was evident, but strategic authority was not fully distributed.
Teacher training	Attendance records and interviews	All teachers attended training on CP, TP, ATP, and module development, although the frequency varied.	Professional support was available but not continuous or uniform.
Classroom practice	Ten classroom observations	Seven lessons were predominantly student-centered, while three remained teacher-led.	The pedagogical transition was meaningful but incomplete.
Module and assessment development	Teaching documents and interviews	Some teachers contextualized materials, whereas others relied considerably on existing templates.	Confidence, workload, and preparation time affected implementation fidelity.
P5 implementation	Planning files, project records, and interviews	Activities followed planning, implementation, and exhibition stages.	Procedural fidelity was established, but student competency growth was not directly measured.
Constraints and institutional responses	Interviews and institutional documents	Limited technology, administrative workloads, and staffing constraints were addressed through mentoring, collaboration, literacy assessment, and parent socialization.	The responses were relevant, although their effectiveness was not independently evaluated.

Planning the Merdeka Curriculum

MI Miftahul Ulum Kanigoro Pagelaran has implemented the Merdeka Curriculum since 2023. Review of the *Kurikulum Operasional Madrasah* confirmed that formal curriculum planning involved the madrasah principal, classroom teachers, curriculum development team, school committee, and foundation administrators. Interview data generally supported this documentary evidence. Nevertheless, two teachers explained that participation in planning meetings did not necessarily entail equal influence over strategic decisions. Final curriculum priorities were commonly determined by the principal and curriculum team, while teachers contributed more extensively to scheduling, lesson organization, and other technical aspects of implementation. The process can therefore be characterized as participatory but not fully distributed. This distinction is important because implementation fidelity depends not only on teachers’ attendance at meetings but also on their opportunities to interpret policy, negotiate contextual priorities, and influence school-level curriculum decisions.

Professional preparation was also evident. All teachers reported attending training on learning outcomes (*Capaian Pembelajaran* [CP]), learning objectives (*Tujuan Pembelajaran* [TP]),

learning-objective sequences (*Alur Tujuan Pembelajaran* [ATP]), and teaching-module development. Attendance records corroborated these claims. However, the reported frequency of training ranged from once per semester to occasional participation. Training provision should therefore be understood as an organizational input rather than evidence that all teachers had acquired equivalent competence in curriculum design, differentiated instruction, contextual module development, and assessment. The uneven frequency of professional development may partly explain the differences found in classroom practice.

Implementing Learning Practices and P5

Classroom observations demonstrated a substantive but incomplete transition toward student-centered pedagogy. Seven of the ten observed lessons included student exploration, discussion, collaborative work, questioning, or guided problem-solving. In these sessions, teachers functioned more as facilitators, and participants perceived students as more active and responsive. By contrast, three lessons remained predominantly teacher-led, with limited opportunities for learner choice, interaction, and independent exploration. Student-centered principles had therefore entered routine classroom practice but had not yet become consistent across teachers and subjects.

Variation was also evident in the preparation and adaptation of teaching modules. Several teachers modified government-provided materials by contextualizing examples, learning activities, and assignments according to student needs. Other teachers relied substantially on available templates and made only limited modifications because of insufficient preparation time and confidence in independent module development. The available evidence indicates that this reliance reflected capacity and workload constraints rather than resistance to the curriculum. This finding is consistent with Ariesanti et al. (2023), who identified teaching-module and assessment development as persistent difficulties among elementary-school teachers implementing the Merdeka Curriculum.

The implementation of the *Projek Penguatan Profil Pelajar Pancasila* followed a recognizable procedural sequence comprising coordination meetings, project planning, team formation, activity implementation, and an exhibition of student work. Planning documents, project records, and interview accounts consistently confirmed these stages. Teachers reported that students worked collaboratively, addressed practical tasks, and produced tangible outputs that were presented to the school community. These findings demonstrate that P5 had been incorporated into the madrasah's organizational routines rather than being treated as an incidental extracurricular activity.

Nevertheless, the evidence does not establish that P5 directly improved collaboration, creativity, critical reasoning, character, or other student competencies. The study did not employ validated competency instruments, repeated performance assessments, or pre- and post-project measurements. Consequently, the findings support conclusions regarding the procedural implementation of P5 and stakeholder-perceived student engagement, but not independently verified competency development. Visible project products indicate participation and task completion, yet they do not necessarily demonstrate the quality of student inquiry, depth of reflection, or progression of student agency.

Supporting Factors, Constraints, and Institutional Responses

Implementation was supported by proactive principal leadership, teacher collaboration, stakeholder participation, periodic training, and mentoring. Participants consistently described the principal as facilitating coordination, motivating teachers, and supporting curriculum-related activities. A

collaborative culture among teachers also enabled the exchange of instructional materials and practical assistance when teachers encountered difficulties.

At the same time, teachers reported challenges in developing contextual modules and assessments, sharing a limited number of projectors, completing substantial administrative work, and operating with restricted human resources. Because these concerns appeared across informants and were consistent with observational and documentary evidence, they should be interpreted as systemic constraints rather than isolated individual problems. Limited access to technology, for example, influenced teachers' opportunities to use digital media and conduct technology-supported learning consistently.

The madrasah responded through peer mentoring and collaborative module development within the Teacher Working Group (*Kelompok Kerja Guru* [KKG]). It also administered initial reading and writing assessments and conducted parent-socialization sessions concerning the Merdeka Curriculum. These responses were aligned with the identified implementation needs. Nevertheless, the study did not determine whether mentoring improved teacher competence over time, whether literacy assessment data were systematically used to design differentiated instruction, or whether parent socialization generated sustained family participation.

Discussion

This study examined Merdeka Curriculum implementation at MI Miftahul Ulum Kanigoro Pagelaran through implementation fidelity, stakeholder-perceived usefulness, and organizational readiness. The findings show differentiated rather than uniform effectiveness. Planning, training, curriculum documentation, and the procedural cycle of the *Projek Penguatan Profil Pelajar Pancasila* (P5) were substantially established, and stakeholders regarded the curriculum as relevant to students' needs. Nevertheless, fidelity varied during enactment: strategic decisions remained concentrated among the principal and curriculum team, student-centered practices appeared in seven of ten observed lessons, teachers differed in module and assessment design capacity, and technology, workload, and staffing constraints reduced consistency. Procedural establishment and perceived usefulness therefore did not automatically produce uniform classroom practice or verified student outcomes.

The planning results align with international evidence that reform becomes more meaningful when teachers have professional autonomy, opportunities to interpret policy, and influence over local decisions (Hughes & Lewis, 2020; Sullanmaa et al., 2021). However, this case distinguishes attendance in participatory meetings from substantive decision-making authority. Similar tensions occur in rural and contextually distinctive schools, where formal autonomy is mediated by organizational history, resources, and leadership arrangements (Chapman, 2020; Lin & Chen, 2024). Research on teacher agency and curriculum leadership likewise shows that enactment depends on expertise, confidence, collegial relationships, institutional structures, and policy expectations (Chen et al., 2021; Wang, 2022; Wang et al., 2022; Wan, 2026). Concentrated leadership may support coordination during reform, but sustained contextualization requires protected opportunities for teachers to shape curricular priorities, not merely execute technical decisions.

The coexistence of proactive leadership and uneven teacher capacity is also consistent with research on organizational readiness. Instructional and teacher leadership strengthen professional learning when leaders facilitate feedback, collaboration, and curriculum-focused development (Daşçı Sönmez et al., 2024). Yet teacher efficacy and receptivity influence how reform is interpreted and enacted (Latt, 2025). Resilience during continuing reform is developed through professional

interaction, experimentation, and reflection rather than isolated training (Yang & Zhang, 2023), while the transfer of professional learning remains culturally and organizationally mediated (Klatt et al., 2020). These studies explain why participation in training coexisted with different levels of confidence in module and assessment development. Training attendance is therefore an input, not evidence that the intended competence has been achieved.

Student-centered learning in seven lessons indicates meaningful pedagogical movement, whereas three teacher-led lessons reveal an incomplete transition. International research cautions that learner-centered pedagogy is shaped by historical traditions, teacher beliefs, assessment systems, and classroom norms (Msonde, 2021; Sakata et al., 2021). Even learner-centered schools show variable fidelity and difficulty translating personalization into routine practice (Huh et al., 2022). Teachers may accept the principle while struggling to operationalize student-centered assessment, feedback, and differentiated decisions (Orabah et al., 2022; Bergner & Chen, 2022). Student participation also depends on activity design and perceived usefulness, not the adoption of a pedagogical label (Tholibon et al., 2022). The observed variation is thus better interpreted as a difference in pedagogical repertoire, preparation time, and confidence than as resistance to reform.

The P5 evidence similarly requires separating procedural fidelity from educational impact. The documented cycle of coordination, planning, project execution, and exhibition corresponds with project-based learning that emphasizes authentic tasks, collaboration, reflection, and public products (Arantes do Amaral, 2021; Lim et al., 2023). In early education, however, project work requires substantial teacher orchestration and organizational support (Aizenberg & Zadok, 2025). Because this study did not directly assess creativity, collaboration, critical reasoning, character, or long-term engagement, it demonstrates that P5 was organized and perceived as engaging, not that it caused competency growth. Visible products may indicate participation while leaving the quality of inquiry and progression of student agency unverified.

Resource and workload constraints deepen this interpretation. Implementation fidelity includes adherence, dosage, delivery quality, and participant responsiveness (Clayback et al., 2022; Lemire et al., 2020). Time shortages, contextual modification, and competing demands can lower adherence even when teachers support an innovation (Combs et al., 2022), while attitudes and social influence affect whether adaptations preserve core components (Swindle et al., 2022). Dependence on templates, shared projectors, and limited preparation time should therefore be viewed as an implementation-system problem rather than individual deficiency. Multiple data sources were essential because self-report can conceal enactment variation, and fidelity measures require construct clarity (van Dijk et al., 2021). Peer mentoring, consultation, and self-monitoring may improve consistency, although their effects depend on sustained and high-quality support (Partee et al., 2021; Scheibel et al., 2022). Other elementary initiatives show that targeted resources and training can improve fidelity (Bigelow et al., 2023), while culturally responsive implementation requires local adaptation without weakening core expectations (Raubaugh & Purmensky, 2021).

The findings also converge with Indonesian evidence. Studies of Sekolah Penggerak identify leadership, collaborative planning, mentoring, and teacher learning as central, while documenting continuing difficulty in translating flexibility into classroom practice (Sumarsih et al., 2022). Comparisons between the 2013 Curriculum and Merdeka Curriculum show greater flexibility but an enduring need for guidance and professional assistance (Angga et al., 2022). Elementary-level analysis emphasizes that national teaching resources and training become useful only through

school-level capacity (Rahmadayanti & Hartoyo, 2022). The principal's supervisory, resource-allocation, and professional-development roles reported by Putri and Kalstum (2022) parallel this madrasah's proactive leadership. Nevertheless, Nihayah et al. (2023) found that autonomy alone does not ensure student-centered instruction, which closely matches the mixed classroom enactment observed here. Foundation governance, Ministry of Religious Affairs administration, restricted technology, and a limited staff base may further intensify these common implementation challenges.

Theoretically, the findings refine the three-criterion framework by showing that implementation fidelity, perceived usefulness, and organizational readiness are interdependent but non-equivalent. Perceived relevance may generate acceptance and readiness may provide structures, yet neither guarantees fidelity in particular lessons. Fidelity is better understood as an enacted outcome produced through teacher agency, curriculum leadership, resources, workload, and professional-learning opportunities. The results also extend ecological accounts of agency by locating agency in everyday adaptation decisions. A refined model should distinguish structural readiness (documents, facilities, schedules), professional readiness (knowledge, confidence, and assessment literacy), and relational readiness (shared authority, mentoring quality, and psychological safety).

Pedagogically, the madrasah should prioritize job-embedded design clinics, lesson study, differentiated-instruction exemplars, and P5 rubrics that monitor participation and competency progression rather than project completion alone. Technology provision should include equitable scheduling and low-technology alternatives. Although emotional well-being, media literacy, online behavior, and identity formation were not measured, reflective dialogue, digital-source evaluation, respectful online collaboration, and psychosocial referral pathways may be incorporated as separately evaluated supports. At policy level, monitoring should move beyond counts of training, modules, and exhibitions toward evidence of classroom enactment, teacher workload, assessment quality, and equitable resource access. Policy should protect time for KKG mentoring, provide differentiated funding for resource-constrained madrasah, and establish student-data and well-being safeguards when digital tools are introduced.

The study's novelty lies in integrating planning, observed classroom practice, P5 organization, stakeholder perceptions, and organizational conditions within one bounded madrasah case. Triangulation revealed a productive discrepancy between formal establishment and uneven enactment: an institution may be procedurally ready and positively oriented toward reform while displaying variable classroom fidelity. This challenges binary labels of implementation as simply successful or unsuccessful and offers a diagnostic interpretation in which components progress at different rates and require different interventions. It also expands curriculum-reform evidence from madrasah ibtidaiyah, a setting that should not be assumed to replicate general elementary schools.

Several limitations qualify these interpretations. The study involved one madrasah, 12 informants, one semester, and 10 observed lessons, so the pattern cannot be statistically generalized. Interviews and institutional documents may retain social-desirability bias despite triangulation, and the study did not quantify fidelity dimensions or measure student learning, character, engagement, emotional well-being, and digital literacy. Future research should use multisite and longitudinal designs, repeated structured observations, validated fidelity instruments, and student-level outcomes. Comparative studies should evaluate whether distributed leadership, KKG mentoring, workload reduction, and technology investment improve enactment over time, and whether context-

sensitive adaptations preserve core curriculum principles and produce sustained P5 competency development.

Conclusion

This single-site case study demonstrates that Merdeka Curriculum implementation at MI Miftahul Ulum Kanigoro Pagelaran was procedurally well established but remained uneven at the classroom level. Although planning involved multiple stakeholders, decision-making authority was largely concentrated among the principal and curriculum team, while teachers were primarily responsible for operational implementation. Student-centered learning was evident in most observed sessions, yet several lessons remained predominantly teacher-led, indicating that pedagogical transformation was still incomplete. P5 was implemented through a structured cycle of planning, execution, and exhibition; however, the study documented implementation processes and stakeholder-perceived engagement rather than independently measured improvements in student character or competencies. Implementation was facilitated by proactive principal leadership, teacher collaboration, stakeholder participation, training, mentoring, peer support, KKG-based module development, initial literacy assessment, and parent socialization, but persistent constraints included uneven teacher capacity in developing contextual modules and assessments, limited access to educational technology, substantial administrative workloads, and restricted human resources. The effectiveness of these institutional responses in reducing capacity and resource gaps was not directly assessed. Because the study was conducted in one madrasah over one semester, relied substantially on interviews and document analysis, and included only 10 classroom observations, the findings should be interpreted cautiously and cannot be generalized to other madrasah or curriculum settings without comparative evidence. Moreover, as the study focused on implementation processes and stakeholder perceptions rather than direct student outcomes, no causal conclusions can be drawn regarding the effects of the curriculum on students' competencies or character development. Strengthening implementation therefore requires targeted professional support for independent module and assessment development, broader access to learning technology, and measures to reduce teachers' administrative burden. Future research should employ multisite and longitudinal designs, incorporate objective measures of student outcomes, and evaluate whether mentoring and KKG-based professional support generate sustained improvements in implementation fidelity.

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