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Policy Ideals vs. Classroom Realities: Teacher Readiness and Barriers in *Kurikulum Merdeka*

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Abstract

The nationwide implementation of *Kurikulum Merdeka* represents a significant paradigm shift toward student-centered learning in Indonesia; however, its operationalization has exposed deep structural challenges within the school ecosystem. This systematic literature review synthesizes empirical evidence from sixteen peer-reviewed articles published between 2023 and 2026 to evaluate teacher readiness, localized classroom friction, and institutional barriers across different educational strata. The findings demonstrate that initial teacher adaptation is severely constrained by low conceptual readiness regarding deep learning pedagogy, which is inadequately resolved by self-directed digital training tools such as the *Platform Merdeka Mengajar* (PMM). Furthermore, the review identifies a distinct structural divergence between educational levels: primary school teachers (SD) are primarily burdened by classroom management and tracking complexities driven by high student heterogeneity and a lack of verified diagnostic data, whereas secondary school instructors (SMA/SMK) are restricted by rigid content-pacing dilemmas, subjective grading metrics for differentiated products, and technological infrastructure deficits. Across all levels, the successful execution of pedagogical autonomy is systematically undermined by excessive administrative inflation, particularly the complex e-Rapor P5 application, which induces acute cognitive exhaustion and forces a dangerous shift from instructional quality to bureaucratic compliance. These insights imply that successful educational reform depends not on expanding standardized regulatory mandates, but on providing localized, tier-specific pedagogical coaching and structurally reducing institutional reporting burdens to restore instructional agency.

Keywords: *Kurikulum Merdeka*, Differentiated Instruction, Teacher Readiness, Administrative Burden, Classroom Management Friction

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INTRODUCTION

The ongoing era of global educational reform has fundamentally reshaped the way instructional stakeholders' access, produce, and consume contemporary pedagogical strategies. In the context of Indonesian education, this landscape has undergone a massive paradigm shift through the nation-wide implementation of the *Kurikulum Merdeka* (Independent Curriculum). At the core of this structural reform is a profound transition toward a deep learning pedagogy, a highly student-centered approach where differentiated instruction and the Project for Strengthening the Profile of Pancasila Students (P5) serve as its primary operational pillars. Differentiated instruction strictly demands that frontline educators dynamically accommodate classroom diversity based on individual learning readiness, fluid interests, and cognitive profiles (Elviya, 2023; Suyitno & Damopolii, 2023). Concurrently, the P5 framework is introduced as an intensive project-based co-

curricular structure designed to deliberately cultivate overarching national character traits (Adiningsih et al., 2024).

However, the rapid transition from conventional teaching frameworks to this new adaptive model has triggered a widespread wave of socio-pedagogical, technical, and systemic challenges across various institutional settings. Growing empirical accounts indicate a significant, unresolved gap between regulatory ideals and teachers' actual capacity to implement these concepts (Salido et al., 2025; Situmorang et al., 2025). Frontline educators are suddenly confronted with the intricate demands of conducting continuous diagnostic assessments, developing highly customized lesson modules, and exercising complex time-management strategies (Elviya, 2023; Hasanah & Sukartono, 2024). Furthermore, teachers frequently grapple with a sharp increase in administrative burdens that inadvertently shift their focus away from actual classroom interactions (Afdhol & Hakim, 2025). This issue has become increasingly significant given that the efficacy of contemporary curriculum implementation relies heavily on the pedagogical readiness of teachers, who act as the ultimate external determinants of educational well-being and instructional quality.

Crucially, these operational barriers are far from uniform, yet the existing literature often treats them as a homogenous phenomenon. A closer look reveals a stark disparity in implementation characteristics between Primary Education (SD) and Secondary Education (SMA/SMK) environments. At the primary level, classroom teachers (*guru kelas*) frequently wrestle with intense classroom management dilemmas within the lower grades due to the highly fluid social and cognitive development of young children (Elviya, 2023). Primary teachers also face distinct sosiopedagogical hurdles when attempting to accurately map the learning profiles of highly heterogeneous young learners (Hasanah & Sukartono, 2024; Nurjanah & Syamsudin, 2023). In response to these primary school constraints, global scholarship has emphasized the urgency of developing digital adaptive tools, such as interactive mathematics e-modules, to scaffold differentiated learning tasks effectively .(Ramdhani et al., 2025)

Conversely, the landscape of secondary education presents an entirely different set of institutional problems. At the secondary level, subject-matter teachers face the dilemma of balancing dense, essential academic content with highly varying individual learning speeds (Suhartono et al., 2024). Secondary school educators also exhibit significant variance in their readiness levels depending on the efficacy and accessibility of independent professional training platforms (Adiningsih et al., 2024; Situmorang et al., 2025). Furthermore, evaluating student outcomes in secondary settings introduces complex psychometric challenges, particularly regarding the objectivity of grading highly diverse, student-generated physical or digital products (Jayanti et al., 2023; Septiani et al., 2025). These difficulties are further compounded by infrastructure deficits, where a lack of robust digital tools limits the proper execution of adaptive teaching models (Situmorang et al., 2025).

Despite these evident variations, the existing body of literature remains fragmented. Most initial empirical investigations have predominantly focused on isolated pedagogical outcomes within a single demographic or institutional level. Consequently, the current educational literature lacks a comprehensive, macro-level synthesis capable of explaining how curriculum reform affects different dimensions of teaching practices across diverse contexts. While isolated studies have documented localized teaching barriers, there remains a critical research gap: a lack of a rigorous, integrated synthesis that directly maps, evaluates, and compares the dual-level dynamics of these obstacles within a unified comparative framework. Existing domestic studies have predominantly relied on isolated quantitative or descriptive designs within heavily restricted geographic locations, thereby limiting the generalizability of their insights. Most investigations have emphasized localized

descriptive reports rather than providing a comprehensive synthesis of the underlying structural mechanisms and the overall trajectory of research development across different educational tiers.

To address these distinct gaps, the present study offers a novel contribution through a systematic literature review that synthesizes empirical evidence regarding the implementation challenges of *Kurikulum Merdeka*. Rather than analyzing a single institutional tier, this review systematically integrates findings concerning pedagogical readiness, socio-pedagogical obstacles, classroom management constraints, and administrative burdens into a coherent comparative model. The specific aims of this systematic review are to examine the implementation dynamics of deep learning pedagogy through a synthesis of empirical studies. Specifically, the study seeks to identify the dominant socio-pedagogical and technical consequences of curriculum transition on teachers' pedagogical readiness, analyze the underlying administrative and systemic mechanisms that compound classroom management difficulties for frontline educators, and develop a comprehensive comparative model explaining how implementation barriers vary across multiple dimensions between Primary School (SD) and Secondary School (SMA/SMK) settings.

RESEARCH METHOD

This study employed a Systematic Literature Review (SLR) using a qualitative-descriptive approach to synthesize empirical evidence regarding the implementation challenges of Kurikulum Merdeka across primary and secondary educational settings in Indonesia. The systematic literature review approach was selected because it enables researchers to identify, evaluate, and integrate findings from previous studies in a systematic, transparent, and reproducible manner, thereby producing more comprehensive conclusions than those generated through conventional narrative reviews. The review process strictly adhered to three major stages: planning, conducting the review, and reporting. During the planning stage, the research questions were formally formulated using the SPIDER framework (Sample, Phenomenon of Interest, Design, Evaluation, and Research Type), which served as the structural foundation for defining the precise scope of the review.

The sample (S) was defined as frontline primary and secondary school teachers in Indonesia; the phenomenon of interest (PI) was the transition to Deep Learning Pedagogy under the *Kurikulum Merdeka* framework; the design (D) included quantitative, qualitative, mixed-method, and case study approaches; the evaluation (E) focused on teacher readiness, socio-pedagogical hurdles, and administrative burdens; and the research type (R) was qualitative synthesis. Subsequently, a comprehensive literature search strategy was developed by identifying relevant keywords, including *Kurikulum Merdeka*, *differentiated instruction*, *project-based learning*, *P5*, *teacher readiness*, and *pedagogical barriers*.

Data collection was conducted through a multi-stage systematic search across three primary academic databases: Google Scholar, Portal Garuda, and the international Education Resources Information Center (ERIC) database. During the initial identification phase, the database search yielded a total of 185 records (n = 185), consisting of 110 articles from Google Scholar, 74 articles from Portal Garuda, and 1 international article from ERIC. To address specific literature gaps concerning secondary education (SMA/SMK) and technical barriers, a secondary search strategy utilizing targeted snowballing via the advanced search feature in Google Scholar was implemented. All retrieved records were systematically compiled to facilitate duplicate detection and initial screening. Study selection was carried out in multiple rigorous stages, beginning with title and abstract screening, followed by a full-text review to determine each article's eligibility and relevance to the research objectives. Out of the 185 records initially identified, a total of 28 duplicate articles were removed before screening (n = 28), leaving 157 unique articles for title and abstract review (n = 157). During the title and abstract assessment, 125 articles were excluded as they did not match

the core focus or scope of the study (n = 125), leaving 32 articles for full-text eligibility assessment (n = 32).

The full-text articles were then rigorously evaluated against strict inclusion and exclusion criteria. The inclusion criteria comprised: (1) empirical studies examining the implementation of Kurikulum Merdeka as the primary independent variable and teacher outcomes (readiness or barriers) as the outcome variable; (2) participants consisting of active primary (SD) or secondary (SMA/SMK) school teachers; (3) studies published in peer-reviewed scientific journals; and (4) articles published between 2023 and 2026. Conversely, studies were excluded if they were unpublished university repositories (theses or dissertations), conference proceedings, macro-policy reports, books, or news articles.

Following the application of these criteria, 18 articles were excluded because they were identified as university repositories, non-journal conference proceedings, or non-empirical reports (n = 18). Ultimately, a final sample of 14 peer-reviewed empirical studies (comprising 13 domestic articles and 1 international article from the ERIC database) fully satisfied all eligibility criteria and were included in the final qualitative thematic synthesis. The comprehensive process of study identification, screening, eligibility assessment, and inclusion is illustrated in the PRISMA study selection framework in Figure 1.

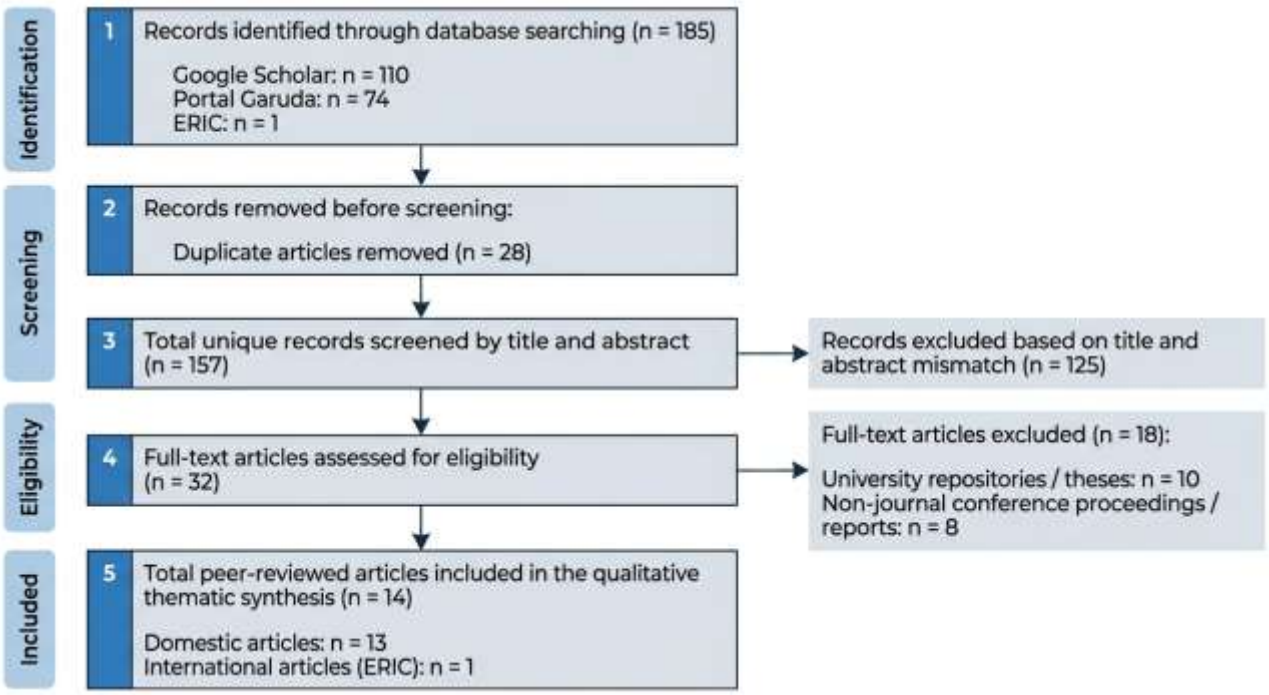

Figure 1. PRISMA Flow Diagram of the Study Selection Process

FINDINGS AND DISCUSSION

The systematic screening of the literature yielded sixteen peer-reviewed empirical studies that explicitly document the implementation realities, educator readiness, and operational barriers of the *Kurikulum Merdeka* framework across Indonesian primary and secondary education. To provide an initial structured mapping of the extracted literature, a comprehensive synthesis of the sixteen final articles, detailed by author, institutional levels, and key findings, is systematically presented in Table 1.

Table 1. Synthesis of Literature Characteristics on Kurikulum Merdeka

Authors	Title of the Article	Institutional Level	Main Findings
Elviya & Sukartiningsih (2023)	Penerapan Pembelajaran Berdiferensiasi dalam Kurikulum Merdeka pada Pelajaran Bahasa Indonesia Kelas IV SD	Primary Education (SD)	Diagnostic assessments and heterogeneous classroom management present significant operational challenges when implementing differentiated instruction.
Nunung Nurjanah & Syamsudin (2023)	Kendala Guru Sekolah Dasar dalam Mengimplementasikan Kurikulum Merdeka	Primary Education (SD)	Primary school teachers experience substantial difficulty in identifying diverse student learning needs and creating suitable differentiated scenarios.
Sri Dinawaty Suyitno & Mujahid Damopolii (2023)	Pembelajaran Berdiferensiasi dalam Kurikulum Merdeka	Secondary Education (SMA/SMK)	Clear assessment rubrics are critical to prevent teacher subjectivity when grading diverse, student-generated products in product differentiation.
Sindy Dwi Jayanti dkk. (2023)	Pembelajaran Berdiferensiasi Pada Mata Pelajaran Sejarah Kurikulum Merdeka di SMA Negeri 22 Surabaya	Secondary Education (SMA/SMK)	Evaluation instruments for differentiated products lack standardized frameworks, making the grading process heavily reliant on teacher subjectivity.
Ni Komang Ayu Trianita Adiningsih dkk. (2024)	Manajemen Kurikulum dalam Penyusunan Perangkat Pembelajaran dan Asesmen pada Pembelajaran Kurikulum Merdeka	Secondary Education (SMA/SMK)	Complexities in digital assessment administration and lesson planning create significant technical friction and strain teacher capacity.
Riri Hartati & Waskito (2024)	Evaluasi Penilaian Hasil Belajar Pembelajaran Berdiferensiasi Berbasis Digital Melalui e-Rapor Kurikulum Merdeka	Secondary Education (SMA/SMK)	Infrastructure deficits in technology (42% of responses) and digital grading software (e-Rapor) severely burden teachers' daily workflow.
Suhartono dkk. (2024)	Penerapan Pembelajaran Berdiferensiasi Berbasis Kurikulum Merdeka Belajar pada Mata Pelajaran Pendidikan Pancasila	Secondary Education (SMA/SMK)	Pacing dilemmas arise from strict time constraints (90 minutes) when balancing dense essential academic content with varying student learning speeds.
Oktavia Nur Hasanah & Sukartono (2024)	Analisis Hambatan Guru Sekolah Dasar dalam Menerapkan Pembelajaran Berdiferensiasi pada Mata Pelajaran IPAS	Primary Education (SD)	Mapping individual learning readiness and interests in science/social studies constitutes a major socio-pedagogical hurdle for primary educators.
Lidia Kristiani Situmorang dkk. (2025)	Evaluasi Implikasi Kurikulum Merdeka: Antara Tantangan dan Peluang dalam Meningkatkan Quality Pendidikan	Cross-level Evaluation (SD & SMA/SMK)	Technical infrastructure glitches (server downtime) and socio-pedagogical adjustments reveal a gap in aligning teacher mindsets with national goals.
Ahmad Taufiq dkk. (2025)	Analysis of Physical Education Teachers' Challenges in Implementing the Independent Curriculum at SMAN 1 Sikur	Secondary Education (SMA/SMK)	Limited digital competence, tight instruction time, and additional non-teaching tasks divert teachers' primary focus away from classroom delivery.
Zaitun Tri Mulya Sari dkk. (2024)	Implementasi Pembelajaran Berdiferensiasi dalam Kurikulum Merdeka di SMP Negeri 5 Rejang Lebong	Secondary Education (SMP)	Differentiated instruction is applied across content, process, and product, yet teacher and student adaptation to new pedagogical frameworks remains a primary hurdle.
Retno Septiani dkk. (2025)	Problematic Implementation of the Independent Curriculum and Teacher	Secondary Education	Misunderstandings regarding project-based learning (P5) and non-objective

	Adaptation Efforts in High School	(SMA/SMK)	assessment frameworks hamper classroom environment stability.
Ahmad Farhan Afdhol dkk. (2025)	Kesiapan Guru Sekolah Dasar dalam Menghadapi Perubahan Kurikulum ke Deep Learning	Primary Education (SD)	Transitioning to deep learning models demands extensive instructional scaffolding that primary teachers struggle to prepare without sustained mentoring.
Sendi Ramdhani dkk. (2025)	Designing Interactive E-Modules Based on Differentiated Instruction and the Theory of Didactical Situations for Primary Mathematics Education	Primary Education (SD)	Integrating custom interactive digital e-modules provides a viable solution to scaffold individual learning pathways in primary mathematics.

To establish a rigorous thematic mapping of the extracted data from Table 1, the narrative findings are categorized into three core themes: pedagogical and psychological readiness profiles, localized classroom management and assessment constraints, and systemic administrative burdens.

Regarding the first theme, the empirical data consistently demonstrates that initial teacher readiness is highly suboptimal across multiple dimensions. Nurjanah & Syamsudin (Nurjanah & Syamsudin, 2023) identified that primary school classroom teachers lack a solid conceptual understanding of deep learning pedagogy, which heavily restricts their initial ability to plan adaptive instruction. This lack of conceptual clarity directly correlates with heightened psychological anxiety and professional stress among frontline educators when forced to transition away from traditional teaching methods (Sari et al., 2024). Furthermore, the reliance on self-directed professional development tools introduces operational bottlenecks; Afdhol & Hakim (Afdhol & Hakim, 2025) and suhartono et al., (Suhartono et al., 2024) revealed that independent training via the *Platform Merdeka Mengajar* (PMM) fails to translate into actual classroom readiness unless it is heavily supported by hands-on instructional mentoring and collaborative workshops.

The second theme highlights localized classroom management and assessment friction, exposing a stark divergence between institutional levels. At the primary education tier, the primary operational challenge stems from high student heterogeneity. Elviya & Sukartiningsih (Elviya, 2023) reported that lower-grade primary teachers face extreme classroom management friction and loss of behavioral control when trying to track and facilitate multiple small groups during process differentiation activities. This tracking difficulty is heavily compounded by the failure of early diagnostic instruments; Oktavia Nur Hasanah & Sukartono (Hasanah & Sukartono, 2024) found that primary educators struggle to accurately map individual student profiles due to a severe lack of home-school transparency and validation from parents regarding non-cognitive diagnostic data. To bridge this operational gap in primary geometry and mathematics classes, empirical data suggests that transitioning to digitally engineered scaffolding tools, such as interactive e-modules based on the Theory of Didactical Situations, significantly reduces the manual tracking load of primary teachers (Ramdhani et al., 2025).

Conversely, the secondary education level encounters an entirely different set of operational constraints driven by rigid disciplinary boundaries. Suhartono et al., (Suhartono et al., 2024) demonstrated that secondary mathematics teachers experience severe pacing dilemmas, as they are structurally caught between meeting dense, mandated curriculum targets and accommodating the slow learning speeds of struggling students. During the evaluation phase, secondary educators also face acute psychometric challenges; Jayanti et al., (Jayanti et al., 2023) documented that grading objectivity is severely compromised because teachers lack standardized, transparent rubrics to fairly evaluate the highly diverse physical or digital artifacts generated by students through product differentiation. Furthermore, these instructional difficulties are structurally locked by technological deficits, where severe shortages in school digital infrastructure completely halt the

equitable deployment of adaptive teaching platforms (Adiningsih et al., 2024; Situmorang et al., 2025).

The third theme reveals that these localized challenges are systematically anchored by heavy institutional administrative inflation. Across both primary and secondary sectors, the practical execution of the new curriculum is heavily constrained by bureaucratic compliance. Sri Dinawaty & Mujahid (Suyitno & Damopolii, 2023) noted that primary teachers face significant structural confusion and time-management deficits when managing the thematic tracking required by co-curricular P5 projects. At the secondary level, this administrative burden becomes acute during reporting periods; Riri Hartati & Waskito (2024) found that the complex technological configuration and data-entry demands of the automated e-Rapor P5 application induce extreme cognitive exhaustion among subject teachers. Ultimately, macro-level evaluation data confirms that these heavy reporting requirements create a dangerous structural diversion, where teachers across the nation are forced to prioritize bureaucratic documentation and administrative compliance over actual classroom instructional quality (Afdhol & Hakim, 2025; Septiani et al., 2025).

Discussion

The dynamic insights obtained from this systematic review indicate that the nation-wide implementation of *Kurikulum Merdeka* serves as a critical stress-test for the adaptive capacity of the Indonesian educational ecosystem. When evaluated through the lens of contemporary curriculum change models, the persistent transition toward a student-centered curriculum cannot succeed merely through regulatory macro-mandates. The findings of this review support the proposition that initial teaching adaptation originates from individuals' attempts to regain instructional agency under conditions of systemic uncertainty. However, the present synthesis extends this explanation by demonstrating that once the curriculum is established, the operational bottlenecks are no longer driven solely by a lack of initial information. Instead, they evolve into a habitual pedagogical friction reinforced by the interaction between teachers' low conceptual readiness and the highly demanding pedagogical features embedded within the new independent curriculum framework (Afdhol & Hakim, 2025; Nurjanah & Syamsudin, 2023; Septiani et al., 2025). This progression suggests that teacher readiness should be conceptualized not merely as a temporary cognitive deficit but as a complex socio-pedagogical adaptation pattern maintained through reciprocal interactions between educators and their shifting institutional environments (Situmorang et al., 2025).

The review further highlights the importance of considering how the lack of interactive instructional support transforms a well-intentioned curriculum policy into a source of continuous professional vulnerability. The heavily pushed *Platform Merdeka Mengajar* (PMM) operates under a flawed assumption that digital self-directed training can seamlessly replace hands-on, tier-specific pedagogical coaching. Without practical, interactive mentorship to bridge the gap between curriculum ideals and daily implementation, educators are left in a state of professional isolation. This lack of active instructional support establishes a self-reinforcing loop of operational confusion. Individuals repeatedly return to digital platforms in an attempt to resolve conceptual uncertainty; paradoxically, this exposure increases contact with abstract regulatory frameworks without providing concrete solutions, thereby intensifying professional anxiety and directly degrading the socio-pedagogical well-being of frontline teachers (Afdhol & Hakim, 2025; Suhartono et al., 2024). Consequently, pedagogical adaptation must be understood as a dynamic process shaped by both individual willingness and structural support architectures.

The findings of this systematic review clearly demonstrate that the operationalization of differentiated instruction introduces severe socio-pedagogical and classroom management friction, which displays highly divergent characteristics between primary (SD) and secondary (SMA/SMK)

tiers. Across the reviewed studies, classroom management constraints, content-pacing dilemmas, grading subjectivity, and digital deficits repeatedly emerged as tier-specific consequences of prolonged exposure to the new curriculum mandates (Adiningsih et al., 2024; Elviya, 2023; Taufiq et al., 2025). The consistency of these findings suggests that the operational challenges are not limited to specific demographic regions but instead represent a broader structural phenomenon associated with the inherent design of different educational strata. Among all identified outcomes, classroom tracking friction appears to constitute the earliest and most prominent operational response at the primary school level. Primary school classroom teachers face intense operational friction when conducting process differentiation, as keeping track of multiple active groups inside a single space frequently degrades basic classroom control due to the highly fluid socio-emotional behaviors of young children (Elviya, 2023; Nurjanah & Syamsudin, 2023).

This primary tracking problem is further compounded by a clear systemic failure in initial diagnostic assessment procedures. Primary teachers find it exceptionally difficult to construct valid non-cognitive student profiles due to a severe deficit in home-school transparency and a lack of collaborative verification from parents regarding student learning characteristics (Hasanah & Sukartono, 2024; Nurjanah & Syamsudin, 2023). Unlike secondary assessments that can lean on independent study habits, primary instruction requires a high degree of interactive scaffolding. When teachers are unable to securely map individual student profiles, the subsequent execution of differentiated instruction becomes highly compromised, turning classroom tracking into an unpredictable behavioral hazard (Elviya, 2023). To counter this heavy manual tracking load at the primary level, contemporary global advancements suggest a transition toward digital adaptive frameworks. Leveraging tools like interactive mathematics e-modules rooted in the Theory of Didactical Situations can systematically scaffold individual student learning pathways, thereby structurally relieving primary teachers from the friction of physical multi-tracking constraints (Ramdhani et al., 2025).

Conversely, the landscape of secondary education (SMA/SMK) operates under a completely different matrix of structural restrictions, primarily dictated by rigid academic disciplines and dense content delivery timelines. Secondary subject teachers are continuously caught in a severe content-pacing dilemma, where they are torn between fulfilling dense, mandated disciplinary targets and accommodating the varying, slow learning speeds of struggling students within the same room (Afdhol & Hakim, 2025; Suhartono et al., 2024; Taufiq et al., 2025). Furthermore, the evaluation phase in secondary schools introduces unique psychometric and infrastructure obstacles. Unlike primary assessments that tolerate holistic developmental descriptive rubrics, secondary instruction requires strict grading objectivity, yet subject teachers completely lack standardized matrices to fairly evaluate the highly diverse, student-determined digital or physical outcomes produced through product differentiation (Jayanti et al., 2023; Septiani et al., 2025; Suyitno & Damopolii, 2023). These secondary school challenges are heavily compounded by architectural infrastructure deficits, where a severe lack of stable digital equipment in secondary schools completely halts the equitable deployment of data-driven teaching models (Hartati & Waskito, 2024; Situmorang et al., 2025).

Another important contribution of this review concerns the identification of the overarching structural mechanism that anchors these level-specific challenges: the extreme administrative inflation built into the current institutional reporting framework (Afdhol & Hakim, 2025; Hartati & Waskito, 2024). Across both educational tiers, the decentralized pedagogical autonomy promised by the new curriculum is actively counteracted by rigid administrative compliance mechanisms. The synthesized literature demonstrates that the complex technological design of the automated evaluation database, specifically the e-Rapor P5 system, induces acute cognitive exhaustion and

severe time-management deficits among frontline educators (Adiningsih et al., 2024; Hartati & Waskito, 2024). On a macro-level scale, this excessive administrative focus creates a dangerous structural diversion. Instead of spending their cognitive energy to refine classroom differentiation strategies and facilitate actual deep learning experiences, educators across the nation are systematically forced to prioritize bureaucratic data entry to satisfy rigid national accountability standards (Afdhol & Hakim, 2025; Taufiq et al., 2025). This observation extends previous literature by demonstrating that curriculum barriers should not be attributed exclusively to individual teacher competence but should also be understood as a consequence of interactions between educators and digitally engineered reporting environments (Situmorang et al., 2025).

From a theoretical standpoint, these findings support the conceptualization of curriculum implementation as a multidimensional construct situated at the intersection of educational management, cognitive psychology, pedagogical science, and digital communication research. The behavior of school adaptation cannot be adequately explained solely through traditional models of teacher training. Instead, successful curriculum reform reflects a complex interaction among the need for conceptual certainty, tier-specific classroom management support, adaptive digital infrastructure, and streamlined institutional reporting (Afdhol & Hakim, 2025; Hartati & Waskito, 2024; Situmorang et al., 2025). This integrative framework provides a more comprehensive explanation of why educators persist in struggling with implementation bottlenecks despite recognizing the theoretical benefits of independent learning principles.

The practical implications are equally important for the future of Indonesian educational policy. The findings indicate that interventions focusing exclusively on deploying standardized digital modules or multiplying independent application tasks are entirely insufficient to mitigate the operational pressures experienced by teachers (Suhartono et al., 2024). More comprehensive preventive strategies should incorporate localized instructional mentoring, tier-specific rubric engineering, cross-sector digital infrastructure investment, and a drastic reduction in automated reporting complexities (Adiningsih et al., 2024; Hartati & Waskito, 2024; Situmorang et al., 2025) Helping regional education departments recognize how excessive database compliance selectively diminishes actual teaching focus may reduce compulsive engagement with bureaucratic paperwork while fostering healthier, more impactful patterns of classroom instructional delivery. At the societal level, these findings also encourage policymakers, educators, school principals, and teacher professional groups to actively collaborate in designing educational environments that better support teacher well-being and pedagogical efficacy without compromising the core quality of student learning (Afdhol & Hakim, 2025; Septiani et al., 2025).

CONCLUSION

The synthesizing evidence from sixteen empirical studies, demonstrate that the implementation of *Kurikulum Merdeka* in Indonesia is significantly constrained by a critical structural mismatch between macro-policy ideals and frontline instructional realities. The review indicates that implementation barriers manifest through tier-specific operational friction, where primary school educators (SD) face intense classroom tracking complexities due to high student heterogeneity, while secondary school instructors (SMA/SMK) are restricted by rigid content-pacing dilemmas, grading subjectivity, and digital infrastructure deficits. This process is systematically anchored by heavy institutional administrative inflation, particularly the e-Rapor P5 system, which induces acute cognitive exhaustion and diverts teachers' focus from actual deep learning delivery toward bureaucratic compliance. These findings highlight an important implication: the ultimate success of contemporary educational reform is determined not merely by the deployment of independent digital training applications or regulatory mandates, but more crucially, by the quality of hands-on,

tier-specific pedagogical coaching and the structural reduction of systemic reporting burdens to restore instructional agency in the classroom.

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