



## Strategic Challenges and Integrated Models for Dual Curriculum Implementation: A Systematic Review (2015–2025)

Bening Kirana Jingga<sup>1\*</sup>; Heru Santosa<sup>2</sup>; Sugiarto<sup>3</sup>; Kamaludin<sup>4</sup>

<sup>1,2,3</sup>Department of Education, Universitas Negeri Jakarta, Indonesia

<sup>1\*</sup>Corresponding Email: [bkiranajingga@gmail.com](mailto:bkiranajingga@gmail.com)

### Article History:

Received: Dec 12, 2025

Revised: Feb 01, 2026

Accepted: Feb 08, 2026

Online First: Feb 28, 2026

### Keywords:

Curriculum Integration,  
Dual Curriculum,  
Educational Policy,  
Systematic Literature  
Review,  
Teacher Professional  
Development.

### Kata Kunci:

Integrasi Kurikulum,  
Kebijakan Pendidikan,  
Kurikulum Ganda,  
Pengembangan Profesional  
Guru,  
Tinjauan Literatur  
Sistematis.

### How to cite:

Jingga, B. K., Santosa, H., Sugiarto, S., & Kamaludin, K. (2026). Strategic Challenges and Integrated Models for Dual Curriculum Implementation: A Systematic Review (2015–2025). *Edunesia : Jurnal Ilmiah Pendidikan*, 7(2), 963-981.

This is an open-access article under the CC-BY-NC-ND license



**Abstract:** The increasing demand for globally competitive yet locally grounded education has encouraged many countries, including Indonesia, to implement dual-curriculum systems integrating national and international frameworks. In Indonesian K–12 schools, this integration commonly involves the national curriculum alongside international programs such as Cambridge, the International Baccalaureate (IB), and the International Primary Curriculum (IPC). While this model offers opportunities to enhance global competence and academic quality, its implementation remains complex and multidimensional. Schools must navigate policy alignment, teacher readiness, curriculum integration, assessment compatibility, and stakeholder coordination simultaneously. Despite growing scholarly attention, existing studies on dual-curriculum implementation remain fragmented, often focusing on isolated variables and failing to provide a comprehensive systemic synthesis. Addressing this gap, the present study employs a PRISMA-guided Systematic Literature Review of 20 peer-reviewed articles published between 2015 and 2025. Through thematic and bibliometric analyses, the study identifies dominant implementation challenges and evolving research trends. As its primary contribution, the research proposes the Integrated Dual Curriculum Implementation (IDCI) Model, a theory-grounded framework designed to support sustainable dual-curriculum practice and inform policy, leadership, and instructional strategies in Indonesia’s evolving education system.

**Abstrak:** Meningkatnya tuntutan akan pendidikan yang berdaya saing global namun tetap berakar pada konteks lokal mendorong banyak negara, termasuk Indonesia, untuk mengimplementasikan sistem kurikulum ganda yang mengintegrasikan kurikulum nasional dan internasional. Pada jenjang pendidikan K–12 di Indonesia, integrasi ini umumnya melibatkan Kurikulum Nasional dengan program internasional seperti Cambridge, International Baccalaureate (IB), dan International Primary Curriculum (IPC). Model ini diyakini mampu meningkatkan kompetensi global dan kualitas akademik peserta didik. Namun, implementasinya tidaklah sederhana karena sekolah harus menghadapi berbagai kompleksitas, mulai dari keselarasan kebijakan, kesiapan guru, integrasi desain kurikulum, kompatibilitas sistem asesmen, hingga koordinasi antar pemangku kepentingan. Meskipun kajian mengenai kurikulum ganda terus berkembang, penelitian yang ada masih bersifat terfragmentasi dan cenderung membahas aspek implementasi secara parsial tanpa sintesis sistemik yang komprehensif. Menjawab kesenjangan tersebut, studi ini menggunakan pendekatan Systematic Literature Review berbasis PRISMA terhadap 20 artikel bereputasi periode 2015–2025. Melalui analisis tematik dan bibliometrik, penelitian ini mengidentifikasi tantangan utama serta tren solusi implementatif, sekaligus mengusulkan Model Integrated Dual Curriculum Implementation (IDCI) sebagai kerangka teoretis-praktis untuk mendukung implementasi kurikulum ganda yang berkelanjutan di Indonesia.

## A. Introduction

Nowadays, the quality of education continues to improve as education systems around the world adapt and evolve to respond to the demands of globalisation and twenty-first-century competencies (Dunphy et al., 2014). In this context, the implementation of a dual curriculum has emerged as a strategic approach to balancing national educational priorities with global academic standards. Many countries, including Indonesia, have adopted dual-curriculum models within their schooling systems. In Indonesia, schools implement the national curriculum—commonly referred to as *Kurikulum Nasional*—alongside internationally recognised frameworks such as the Cambridge International Curriculum, the International Baccalaureate (IB), and the International Primary Curriculum (IPC). The integration of these curricula enables students to engage with both local values and international perspectives within the learning process (Widagsa, 2022). This dual approach reflects broader efforts to prepare learners for participation in interconnected global and national contexts.

Empirical evidence highlights multiple benefits associated with dual-curriculum implementation. Studies indicate that integrating national and international curricula can enhance students' competencies across global and domestic standards, thereby improving academic performance (McDowall & Hipkins., 2019). Furthermore, dual-curriculum environments have been shown to strengthen English proficiency, critical thinking skills, and intercultural awareness while maintaining national identity and values (Mustadi & Junaidi et al., 2024). Despite these advantages, implementing dual curricula remains highly complex in practice. Schools are required to meet two sets of standards simultaneously, often resulting in challenges related to policy alignment, resource availability, infrastructure readiness, and teacher capacity (San Htay & Hadiyanto, 2022). These structural constraints frequently create a gap between policy expectations and classroom realities. Teachers, for instance, often experience difficulties aligning learning outcomes, integrating instructional content, and adopting student-centred pedagogical approaches, particularly when professional development opportunities are limited (Data, 2025; Sari & Jihad, 2020). Financial and administrative constraints further compound these challenges, as schools must invest substantial resources to provide facilities and learning environments that meet the requirements of both curricula.

Although the body of research on dual-curriculum implementation continues to grow, existing studies remain fragmented and partial in scope. Much of the prior literature focuses on single international curriculum frameworks, such as Cambridge or IB, or examines implementation within specific subject domains, particularly English and science. In addition, many studies investigate isolated aspects of practice—such as classroom instruction or student outcomes—without sufficiently integrating institutional, pedagogical, and policy dimensions. As a result, there is still no comprehensive systematic synthesis that consolidates empirical findings across multiple international curriculum frameworks while situating them within Indonesia's educational context. More importantly, no prior research has offered a systematic literature review that not only maps dominant

implementation challenges but also develops an integrative, evidence-based implementation model tailored specifically to Indonesia's dual-curriculum landscape.

To address these limitations, the present study makes several original contributions to the field. Methodologically, it integrates bibliometric and thematic analyses within a PRISMA-guided Systematic Literature Review, enabling both macro-level mapping of research trends and in-depth qualitative synthesis of implementation challenges and strategic responses. Conceptually, the study moves beyond descriptive review by proposing the Integrated Dual Curriculum Implementation (IDCI) Model as a systemic framework for practice. Grounded in Fullan's Change Theory and the Systems Approach to Curriculum Development, the model conceptualises dual-curriculum implementation as a dynamic, multi-level change process involving policy structures, institutional systems, and instructional practices. By combining empirical evidence with established theoretical perspectives, this study contributes a context-sensitive framework designed to support sustainable curriculum integration within Indonesia's education system.

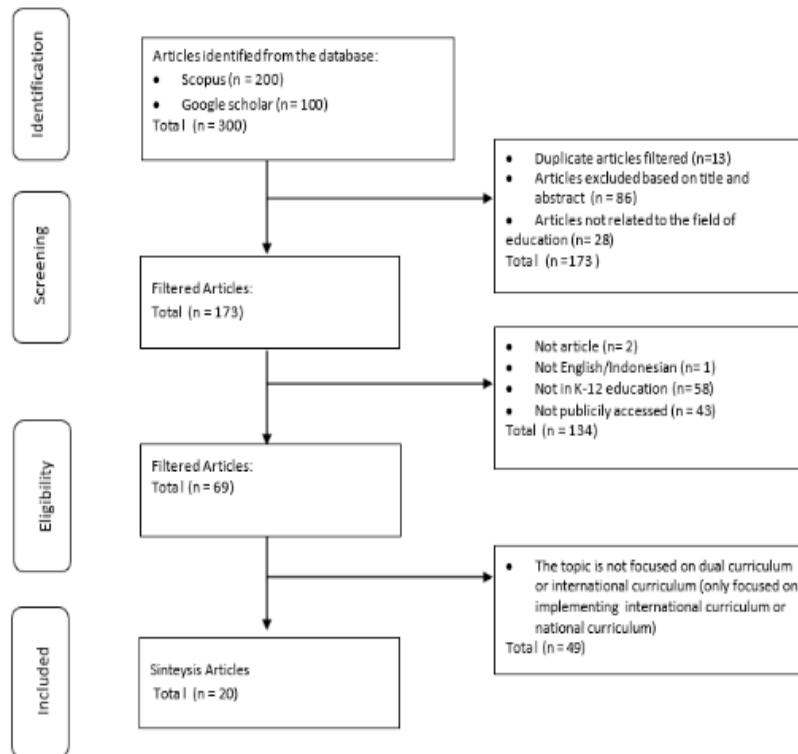
Guided by this conceptual and empirical positioning, the study seeks to systematically examine the landscape of dual-curriculum research and generate evidence-based strategic insights for implementation. Specifically, it analyses bibliometric trends in dual-curriculum studies published between 2015 and 2025, identifies major challenges schools face in integrating national and international curricula, and synthesises strategic solutions proposed across the literature. Ultimately, the study aims to develop a coherent implementation model that informs policymakers, school leaders, and educators in strengthening globally oriented dual-curriculum practices that remain responsive to Indonesia's national educational goals and local educational contexts.

## **B. Method**

This study employs a Systematic Literature Review (SLR) design to systematically analyse and synthesise findings from previous research on the implementation and integration of dual curricula—combining national and international curricula—in Indonesian schools. The review follows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure a transparent, rigorous, and replicable research process. The SLR approach was selected to enable a comprehensive examination of existing empirical evidence and to identify dominant challenges and strategic solutions related to dual-curriculum implementation.

The data sources for this study were Scopus and Google Scholar, selected for their extensive coverage and credibility in publishing educational and curriculum-related research. Publications from 2015 to 2025 were considered. The initial search yielded 300 articles, which were subsequently screened based on predefined inclusion and exclusion criteria. Eligible studies were peer-reviewed journal articles published in English or Indonesian and publicly accessible. They focused on issues related to national and international curriculum integration, teacher readiness, curriculum implementation, or

policy challenges in K-12 education, particularly within the Indonesian context. The flow is stated in the research flow below:



**Figure 1.** Research Flow

Data collection followed several systematic steps. First, relevant studies were identified using keywords such as “dual curriculum,” “implementation of national and international curriculum,” and “international curriculum” through the Publish or Perish software. Second, all retrieved references were exported to Mendeley for organisation, deduplication, and initial screening against the inclusion criteria. Third, abstracts of the shortlisted articles were reviewed to confirm relevance and eligibility. Finally, key information – including publication year, authors, research context, methodology, and main findings – was extracted using an SLR matrix to facilitate systematic comparison and synthesis.

Following data extraction, two analytical techniques were applied. Bibliometric analysis was conducted using VOSviewer to identify publication trends, research focus shifts, and thematic relationships within the literature. In addition, a formal thematic analysis was employed as the primary qualitative synthesis technique to identify recurring patterns and dominant challenges in dual-curriculum implementation. The thematic analysis followed established procedures of coding, categorisation, and theme development. Data from the selected studies were coded and organised into five overarching challenge themes: (1) policy and regulatory issues, (2) teacher competence and

professional development, (3) curriculum design and alignment, (4) assessment and evaluation systems, and (5) stakeholder involvement and communication.

During the identification stage, 300 articles were collected, comprising 200 articles from Scopus and 100 from Google Scholar. After removing 13 duplicate records, 287 articles remained for screening. At the screening stage, 173 articles were retained after excluding irrelevant studies ( $n = 86$ ) based on title and abstract review or those not related to the field of education ( $n = 28$ ). In the eligibility stage, articles were further assessed against the inclusion and exclusion criteria. Studies were excluded if they were not academic journal articles ( $n = 2$ ), were not written in English or Indonesian ( $n = 1$ ), were not focused on K-12 education ( $n = 58$ ), or were not publicly accessible ( $n = 43$ ). This process resulted in 69 eligible articles. In the final inclusion stage, studies that did not explicitly address dual-curriculum implementation—such as those examining only national or international curricula without integration—were excluded ( $n = 49$ ). Consequently, 20 articles were included in the final synthesis.

## **C. Result**

### **Literature Review Result**

The 20 selected studies, published between 2015 and 2025, reflect diverse educational contexts, methodological approaches, and curriculum frameworks. Most studies were conducted in Asian countries, particularly Indonesia, with several comparative studies from other regions that implemented international curricula, such as the Cambridge International Examinations, the International Baccalaureate (IB), and the International Primary Curriculum (IPC). In terms of research design, qualitative approaches dominated the literature, including case studies, interviews, and document analyses, followed by mixed-methods studies. The reviewed articles primarily focused on curriculum integration, teacher readiness and professional development, assessment alignment, and policy-related challenges in dual curriculum settings. This diversity of study characteristics provided a comprehensive foundation for synthesising patterns and identifying recurring challenges across different institutional and policy contexts.

Thematic analysis was also employed as a formal qualitative method to synthesise findings across the selected studies. Through iterative coding and categorisation, five dominant themes of challenge emerged consistently in the literature. These themes represent recurring structural, pedagogical, and institutional issues affecting the implementation of dual curricula in K-12 education. The five themes include: (1) policy and regulatory inconsistencies, (2) teacher competence and professional development, (3) curriculum design and alignment challenges, (4) assessment and evaluation system discrepancies, and (5) stakeholder involvement and communication. These themes were derived from cross-study comparisons and reflect the most frequently reported barriers across educational settings.

**Table 1.** Systematic Literature Review Result

No.	Author(s) (Year)	Title	Main Focus of Findings	Theme
1	Hidayat, M. T., Suryadi, S., Latifannisa, N., Sari, S. N., & Rino, R. (2025).	Evolution of The Education Curriculum in Indonesia	Frequent curriculum changes create confusion and weak alignment between national and international frameworks.	Policy and Regulatory Challenges
2	Setiawan, B., & Suwandi, E. (2022).	The Development of Indonesia's National Curriculum and Its Changes: The Integrated Science Curriculum Development in Indonesia	Policy shifts challenge long-term curriculum consistency and hinder smooth integration.	Policy and Regulatory Challenges
3	Nasywaa H. S. H., Inayah D. S., Gibran S. A., & Elis S. (2025).	Dynamics of Ministerial Change and Curriculum Rotation: Analyzing Indonesian Education Policy through Literature Study	Finds that frequent ministerial shifts trigger new curriculum reforms, causing confusion, teacher fatigue, and systemic instability.	Policy and Regulatory Challenges
4	Ni'am, M. D., & Raikhan. (2025).	Transformation Of Educational Curriculum Development In Indonesia: History, Challenges, And Future Opportunities	Highlights the socio-political, technological, and economic factors that shape curriculum changes. This research found that changing the curriculum affects teacher readiness.	Policy and Regulatory Challenges
5	Erlina, D., Marzulina, L., Holandyah, M., Herizal, H., Harto, K., Putri, H. Z., & Sari, I. P. (2024).	Teaching English and Curriculum: Teachers' Challenges and Strategies in an Indonesian Madrasah	Teachers face linguistic and methodological barriers when adapting to the Plus curriculum.	Teacher Competence and Professional Development
6	Shalihah, M. A., Ramadani, N., Mellian, Y. A., & Arifmiboy. (2024).	Bringing English to Life: The Implementation of the Cambridge Curriculum in SMP Islam Al-Azhar 39 Bukittinggi	Need for teacher capacity building in bilingual and intercultural pedagogy.	Teacher Competence and Professional Development

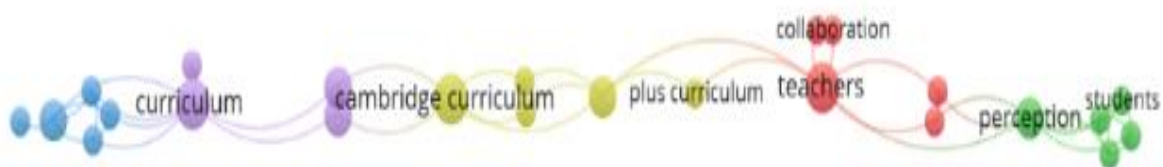
No.	Author(s) (Year)	Title	Main Focus of Findings	Theme
7	Widagsa, R. (2022).	An EFL Teacher Perspective on Implementation of Dual Curriculum (Cambridge and Indonesian K13 National Curriculum) at Mutiara Persada School, Yogyakarta	Teachers struggle to meet both curricula's learning targets and language requirements.	Teacher Competence and Professional Development
8	Muamaroh, A., Sutopo, A., & Muzaedah. (2024).	The Challenge of Implementing the Cambridge Curriculum in Elementary School	Teachers face classroom management challenges, student attention issues, and a lack of confidence in English-speaking activities; bilingual strategies and varied methods help address these.	Teacher Competence and Professional Development
9	Purwati, E., & Sukirman, D. (2024).	Teacher competence development in Kurikulum Merdeka implementation: A literature study	Highlights digital competence, ongoing teacher training, and collaborative strategies as key to the effective implementation of the Kurikulum Merdeka.	Teacher Competence and Professional Development
10	Adilah, N., Galvez, J., Suliyanah, & Deta, U. A (2023).	Analisis Implementasi Kurikulum Cambridge pada Salah Satu Sekolah Internasional di Jakarta	Teacher competence lies in adapting teaching methods to balance international approaches, emphasising process and critical thinking, with local expectations focused on results. Additionally, some teachers struggle to maintain student engagement and discipline, which undermines the consistent application of Cambridge's student-centred learning model.	Teacher Competence and Professional Development
11	Mustadi, A., & Junaidi, A. D. (2024).	The Implementation of the Cambridge Curriculum in the International Elementary School	Difficulty aligning learning objectives between the Indonesian national and Cambridge curricula.	Curriculum Design and Alignment
12	Magfiroh, V. S., Qamariah, S., Salsabila, S., & Ramadani, N. D. (2025).	Implementasi Kurikulum Cambridge di Al-irsyad Satya Islamic School Bandung	Overlapping content and a heavy workload result from partial curriculum fusion.	Curriculum Design and Alignment

No.	Author(s) (Year)	Title	Main Focus of Findings	Theme
13	Riza, M., Slamet, I., & Pramudya, I. (2025).	Analysis of Cambridge Curriculum Implementation in Mathematics Learning in Indonesia: A Systematic Literature Review	Curriculum integration requires stronger subject-level alignment and assessment mapping.	Curriculum Design and Alignment
14	Pratama, A. B., Martono, T., & Sudarno. (2022)	Efektivitas Implementasi Kurikulum <i>International Baccalaureate</i> (IB) Pada Pembelajaran Ekonomi Kelas X di SMA Al Firdaus Sukoharjo	Assessment standards differ widely between IB and national exams, complicating grading and reporting.	Assessment and Evaluation Systems
15	Muktamar, A. (2023).	Tantangan Implementasi Asesmen dalam Kurikulum Merdeka	Implementing assessments in Indonesia's Kurikulum Merdeka is challenging. Teachers face difficulties designing appropriate assessments due to limited training, resources, and stakeholder support.	Assessment and Evaluation Systems
16	Lubis, N. S., Hanafi, M. S., & Hidayat, S. (2025).	The Impact of the Implementation of the International Baccalaureate (IB) Curriculum on Shaping the Quality of Teacher Performance at Islamic Village Tangerang School	Parent and management expectations drive teacher performance in dual- curriculum environments.	Stakeholder Involvement and Communication
17	Nasir, A. M., Yawan, H., & Saifullah, S. (2023).	A Comparative Study: Similarities and Differences between Indonesia's Curriculum and the Philippines' Curriculum	Highlights regional alignment challenges and cross-country lessons for curriculum internationalization.	Stakeholder Involvement and Communication
18	Salmon, Y., Saefudin, D., Mujahidin, E.,	Development of an Integrated Islamic	Collaboration among parents, teachers, and administrators	Stakeholder Involvement and Communication

No.	Author(s) (Year)	Title	Main Focus of Findings	Theme
	& Husaini, A. (2024).	School Curriculum At Junior High School Level In Islamic Boarding Schools	enhances the adaptation of the dual curriculum.	
19	Valmay, A. C., Supriyanto, A., & Sunandar, A. (2025).	Dynamic Stakeholder Adaptation to Cambridge Curriculum-Based Learning: Challenges And Strategies	Successful implementation of the Cambridge curriculum depends on collaboration among stakeholders (teachers, parents, administrators) and on dynamic adaptation strategies, such as supervision, English-language habits, and contextualized management.	Stakeholder Involvement and Communication
20	Prihantini, P., & Hasmar, J. (2024).	The Impact of School and Parent Collaboration in Curriculum Implementation in Elementary School Education	Strong collaboration between school and parents enhances student learning outcomes; effective communication increases engagement and trust.	Stakeholder Involvement and Communication

### Research Trends and Bibliometric Analysis

Bibliometric analysis was conducted using VOSviewer to identify research trends and thematic relationships within the selected literature. The network visualisation reveals three interconnected clusters: curriculum policy and alignment, teacher capacity and collaboration, and student learning and assessment. These clusters indicate that dual-curriculum implementation is a multidimensional issue that requires coherence among policy frameworks, teacher preparedness, and assessment practices. The strong interconnections among these clusters highlight teacher collaboration as a central link between curriculum planning and classroom implementation. This finding suggests that teachers play a critical role in translating curriculum policy into instructional practice, particularly in dual-curriculum contexts that require alignment between national and international standards.



**Figure 3.** Network Visualization of Dual Curriculum research Theme

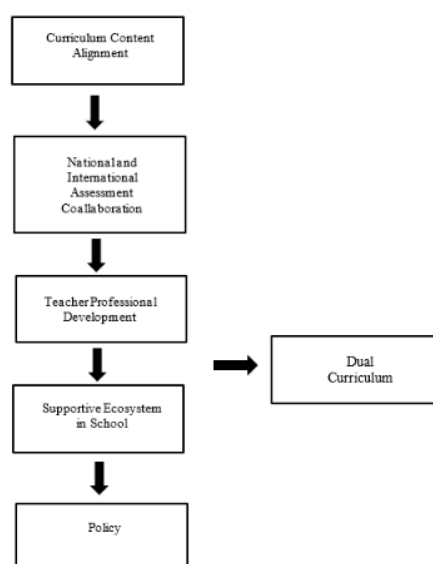
The overlay visualisation illustrates the evolution of research topics over time. Studies published between 2015 and 2020 primarily focused on structural and regulatory challenges, including policy inconsistencies and curriculum misalignment. In contrast, more recent studies (2021–2025) demonstrate a shift toward solution-oriented research, emphasising curriculum mapping models, teacher professional development, integrated assessment strategies, and stakeholder collaboration. This trend reflects a growing maturity in dual-curriculum research, moving from problem identification toward practical, context-sensitive solutions.



**Figure 4.** Overlay Visualization of research Trends (2015–2025)

### Summary of Key Challenges Identified in the Literature

To synthesise the findings further, the five thematic challenges were consolidated into an integrative summary illustrating their interrelated nature. The literature indicates that policy instability often influences curriculum alignment and assessment practices, while limited teacher capacity exacerbates implementation difficulties at the classroom level. Inadequate stakeholder collaboration further compounds these challenges by weakening institutional support and communication. This synthesis demonstrates that dual curriculum challenges should not be viewed as isolated problems but as interconnected components within an educational system. Addressing one challenge without considering its systemic relationship with others may limit the sustainability of implementation efforts. Therefore, a comprehensive and integrated framework is required to respond effectively to these interdependent challenges.



**Figure 5.** Summary of Key Challenges in Dual Curriculum Implementation

## D. Discussion

Policy-related challenges are the dominant factor influencing the success or failure of dual-curriculum implementation. The findings indicate that frequent changes and inconsistencies in national education policies create uncertainty for schools attempting to integrate relatively fixed international curriculum frameworks. This condition aligns with Ball's concept of policy turbulence, which explains how continual policy shifts disrupt institutional practices and complicate implementation processes. In the Indonesian context, such instability often generates confusion among school leaders and teachers, who must simultaneously respond to evolving national regulations while maintaining compliance with international curriculum standards (Ball, 2017). This situation reflects what has been described as institutional uncertainty, where overlapping and sometimes contradictory regulations hinder long-term planning and sustainable curriculum integration (Kusnawan, 2019; Rusydiyah et al., 2021). Comparable dynamics have also been reported in Southeast Asian contexts such as Malaysia and Singapore, where misalignment between national policies and international curriculum expectations complicates implementation processes (Jamaludin et al., 2023; Kwan, 2023). These patterns contribute to what can be conceptualised as dual-policy fatigue, in which schools are required to continuously adjust to national reforms while adhering to relatively stable international frameworks. Consequently, coherent and collaborative policy alignment becomes a foundational requirement for sustainable dual-curriculum practice.

Beyond regulatory structures, teacher competence and professional development represent another critical implementation determinant. The reviewed literature consistently highlights language barriers, limited pre-service and in-service preparation, and increased workload demands as persistent constraints (Padmadewi et al., 2020). These findings

reinforce earlier research positioning teachers as the strongest predictor of success in bilingual and dual-curriculum classrooms (Surayatika, 2020). However, while prior studies emphasise individual teacher readiness, the present synthesis suggests that competence gaps should also be understood as systemic institutional capacity issues rather than solely personal limitations. Without sustained professional learning systems, teachers struggle to reconcile inquiry-based pedagogies promoted by international curricula with the content-intensive and examination-oriented orientation of the national curriculum. As a result, many revert to traditional instructional approaches that may weaken student engagement and the development of higher-order thinking. This indicates the need for continuous, collaborative, and practice-embedded professional development rather than short-term training interventions.

Stakeholder involvement further shapes implementation sustainability. Effective collaboration among school leaders, teachers, parents, and the wider educational community strengthens shared ownership and institutional coherence (Prabowo & Wibowo, 2018; Prihantini & Hasmar et al., 2024). Communication between schools and parents plays a particularly strategic role in aligning expectations related to learning outcomes, assessment practices, and student workload. Similar findings emphasise stakeholder synergy as a critical success factor in dual-curriculum environments (Halimah et al., 2020). Leadership, therefore, functions not only administratively but also relationally, cultivating supportive professional ecosystems that enable effective curriculum integration.

Curriculum alignment constitutes another recurring structural challenge. Integrating two curriculum frameworks often results in overlapping content, instructional redundancy, and excessive learning demands. Several studies report that addressing dual standards simultaneously may overload classroom activities and exceed students' cognitive capacity (Retnawati et al., 2018; Zamroni & Haryanto, 2020). Comparable tensions in curriculum integration have been observed in hybrid models implemented internationally, including in Vietnam (Kieu & Vo, 2017). However, variations across contexts suggest that well-resourced schools with strong curriculum planning structures experience fewer alignment constraints, indicating that institutional capacity mediates integration complexity. Systematic curriculum mapping, therefore, emerges as a strategic mechanism to ensure coherence across learning objectives, instructional design, and workload distribution.

Assessment discrepancies add another layer of complexity. International frameworks such as the International Baccalaureate emphasise formative assessment, inquiry processes, and critical thinking, whereas the Indonesian national system relies more heavily on summative examinations and standardised indicators (Hidayat & Sukmawati, 2022; Nirwana et al., 2024). Similar tensions have been documented in Singapore and other Asian systems (Kwan, 2023). These divergences create challenges in reporting, grading, and evaluation for schools operating dual systems. The findings support the adoption of assessment pluralism, integrating national examinations with performance-based and portfolio assessments. Such integration requires institutional coordination and targeted

professional development to ensure that assessment practices remain both globally responsive and nationally accountable.

Synthesising these interconnected structural, pedagogical, and institutional challenges reveals that dual-curriculum implementation operates as a systemic reform ecosystem rather than a set of isolated technical adjustments. Policy instability triggers curriculum misalignment, which in turn increases teacher workload and reduces pedagogical innovation capacity, while weak stakeholder collaboration further constrains institutional responsiveness. This causal interdependence indicates that fragmented interventions are insufficient. Responding to this systemic complexity, the present study proposes the Integrated Dual Curriculum Implementation (IDCI) Model as an integrative implementation framework.

Within the model, curriculum content alignment functions as the foundational subsystem ensuring coherence among learning objectives, instructional materials, and assessment structures. This emphasis resonates with Fullan's Change Theory, which underscores consistency and shared meaning as prerequisites for successful educational reform (Fullan, 2006). Teacher professional development operates as the human subsystem driving pedagogical transformation, reinforcing Fullan's positioning of teachers as central change agents. A supportive school ecosystem strengthens collaboration, trust, and organisational learning capacity—conditions identified as essential for sustaining innovation. Policy stability, meanwhile, operates as the regulatory control mechanism that provides structural direction, accountability, and long-term implementation security.

Theoretically, this synthesis extends Fullan's Change Theory by situating curriculum reform within dual-policy environments rather than single-system change contexts. It also advances the Systems Approach to Curriculum Development by empirically demonstrating the dynamic interaction among regulatory, institutional, and pedagogical subsystems (Rajasekar, 2019). Nevertheless, the applicability of the IDCI Model may vary across institutional contexts, particularly between well-resourced international schools and under-resourced regional schools, suggesting boundary conditions for the scalability of implementation.

Overall, the IDCI Model offers an evidence-based and theoretically grounded framework that responds to the multifaceted realities of dual-curriculum practice. By integrating empirical synthesis with change and systems theory, the model provides strategic guidance for policy formulation, school leadership, and instructional design, supporting the development of globally oriented yet locally grounded dual-curriculum systems in Indonesia.

## E. Implication

The findings of this study offer significant implications for the development and sustainability of dual-curriculum implementation in Indonesian schools. From a policy perspective, the synthesis provides an evidence-based reference to support the design of more coherent regulatory frameworks, particularly in addressing dual-policy fatigue and

ensuring alignment between national education standards and international curriculum requirements. Strengthening policy stability is essential to reducing institutional uncertainty and enabling schools to implement dual curricula more strategically and sustainably.

From an institutional and leadership perspective, the study underscores the importance of developing structured curriculum-mapping systems that facilitate alignment among national and international learning outcomes, instructional content, and assessment practices. School leaders can utilise this framework to design integrative planning mechanisms, optimise resource allocation, and foster organisational readiness for curriculum innovation.

Pedagogically, the findings highlight the urgency of continuous teacher professional development and collaborative learning ecosystems. Strengthening teacher capacity through sustained training, peer collaboration, and reflective practice is critical for bridging pedagogical differences across curricula. Additionally, enhancing stakeholder synergy – particularly among schools, parents, and educational communities – emerges as a strategic lever for improving communication, shared responsibility, and implementation effectiveness.

Collectively, these implications position the proposed framework as a practical resource for policymakers, school leaders, and educators to advance educational quality through context-responsive, globally oriented dual-curriculum systems in Indonesia.

## **F. Limitation and Suggestion for Further Research**

This study is subject to several limitations that should be acknowledged when interpreting the findings. First, the review relies exclusively on secondary data derived from published studies between 2015 and 2025, which limits the ability to capture detailed contextual realities of dual-curriculum implementation at the school level. Excluding grey literature, unpublished institutional reports, and local policy documents may narrow the analytical scope and introduce publication bias.

Second, the heterogeneity of the reviewed studies in terms of research design, methodological rigor, and contextual focus poses challenges for cross-study comparison and generalisation. Variations in data collection methods, sample characteristics, and analytical approaches may influence the consistency of synthesised findings.

Third, most of the reviewed literature focuses on urban or well-resourced schools, while paying limited attention to rural, remote, or underfunded educational settings. Consequently, the synthesis may not fully represent the broader diversity of dual-curriculum practices across Indonesia.

Future research is therefore encouraged to complement systematic reviews with empirical, field-based approaches, such as case studies, ethnographic inquiry, or mixed-method designs, to capture implementation dynamics more comprehensively. Greater scholarly attention to rural and resource-constrained contexts would further enrich understanding by revealing additional structural and pedagogical challenges influencing dual-curriculum sustainability.

## G. Conclusion

The implementation of dual curricula in Indonesian schools through the integration of national and international programs poses multidimensional challenges, including policy coherence, teacher competence, curriculum alignment, assessment systems, and stakeholder engagement. The findings of this study demonstrate that sustainable implementation requires systemic alignment across these interrelated domains. Policy consistency, continuous teacher professional development, structured curriculum mapping, and collaborative stakeholder participation emerge as critical enabling conditions. Strategic efforts such as regulatory stabilisation, capacity building, integrated assessment design, and strengthened school–community partnerships are therefore essential to support effective practice.

This study also proposes the Integrated Dual Curriculum Implementation Model as a conceptual and practical framework grounded in Fullan’s Change Theory and the Systems Approach to Curriculum Development. The model offers a systemic perspective for understanding and managing dual-curriculum reform by emphasising coherence among structural, institutional, and pedagogical subsystems. Although derived from secondary data, the study provides an evidence-based foundation that can inform policy formulation, school leadership strategies, and instructional planning. Collectively, these insights advance sustainable, high-quality, and globally oriented education while remaining responsive to Indonesia's national educational context.

## References

- Adilah, N., Galvez, J., Suliyannah, & Deta, U. A. (2023). Analisis Implementasi Kurikulum Cambridge pada Salah Satu Sekolah Internasional di Jakarta. *Jurnal Ilmu Pendidikan dan Pembelajaran (JIPP)*, 2(1), 48–64. <https://doi.org/10.58706/jipp.v2n1.p48-64>
- Ball, S. J. (2017). *The Education Debate* (2nd ed.). Policy Press.
- Data, A. (2025). Students’ and Teachers’ Perceptions of the Cambridge Curriculum Implementation in English Subject at an SPK School in Surabaya. *Esteem Journal of English Education Study Programme*, 8(2), 509–521. <https://doi.org/10.31851/esteem.v8i2.19408>
- Dunphy, E., Dooley, T., Shiel, G., Butler, D. W., Corcoran, D., Ryan, M., Travers, J., Hughes, C., Acedo, C., Farrell, T., Nic Mhuirí, S., O’Connor, M., & Walshaw, M. (2014). Guiding Principles for Learning in the Twenty-First Century. *Prospects*, 44(4), 495–508.
- Erlina, D., Marzulina, L., Holandyah, M., Herizal, H., Harto, K., Putri, H. Z., & Sari, I. P. (2024). Teaching English and Plus Curriculum: Teachers' Challenges and Strategies in an Indonesian Madrasah. *Indonesian Research Journal in Education (IRJE)*, 8(1), 90–106. <https://doi.org/10.22437/irje.v8i1.32885>

- Fullan, M. (2006). *Change Theory: A Force for School Improvement. Centre for Strategic Education Seminar Series*, 157, 1–14.
- Halimah, L., Margaretha, S., & Mirawati. (2020). Teacher–Parent Partnership on Early Childhood Education Curriculum Development. In S. Aisyah (Ed.), *Proceedings of the 4th International Conference on Early Childhood Education (ECPE 2020)* (Vol. 487, pp. 212–222). Atlantis Press. <https://doi.org/10.2991/assehr.k.201112.038>
- Hidayat, M. T., & Sukmawati, R. (2022). Dilemmas of Assessment Integration: Bridging National and International Standards. *Educational Assessment Journal*, 7(1), 33–41.
- Hidayat, M. T., Suryadi, S., Latifannisa, N., Sari, S. N., & Rino, R. (2025). Evolution of the Education Curriculum in Indonesia. *Journal of Innovation in Educational and Cultural Research*, 6(2), 381–395. <https://doi.org/10.46843/jiecr.v6i2.1312>
- Jamaludin, K. A., Ealangov, S., Saleh, S. N. H. M., Zabidi, N. A., Alias, N., Yasin, M. H. M., & Alias, B. S. (2023). Reshaping the Curriculum for Academy in Factory in Malaysia. *Frontiers in Psychology*, 14, 1120611. <https://doi.org/10.3389/fpsyg.2023.1120611>
- Kieu, K. T., & Vo, M. V. (2017). Transforming Education in Central Vietnam by Integrated Curriculum Approach: From Initiatives to Sustainability. *European Journal of Education Studies*, 3(12), 370–383. <https://doi.org/10.5281/zenodo.1127790>
- Kusnawan, W. (2019). Inconsistency of Curriculum of Education in Indonesia. *Istawa: Jurnal Pendidikan Islam*, 4(1), 1–20. <https://doi.org/10.24269/ijpi.v4i1.1667>
- Kwan, J. (2023). Classroom-Based Assessment: Tension Between Summative and Formative Assessment Practices Among Primary Schools in Singapore. *Biomedical Journal of Scientific & Technical Research*, 53(3), 44749–44758. <https://doi.org/10.26717/BJSTR.2023.53.008403>
- Lubis, N. S., Hanafi, M. S., & Hidayat, S. (2025). The Impact of the Implementation of the International Baccalaureate (IB) Curriculum on Shaping the Quality of Teacher Performance at Islamic Village Tangerang School. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 10(1), 308–321. <https://doi.org/10.25217/ji.v10i1.4567>
- Magfiroh, V. S., Qamariah, S., Salsabila, S., & Ramadani, N. D. (2025). Implementasi Kurikulum Cambridge di Al-Irsyad Satya Islamic School Bandung. *Semantik: Jurnal Riset Ilmu Pendidikan, Bahasa dan Budaya*, 3(1), 239–254. <https://doi.org/10.61132/semantik.v3i1.1414>
- McDowall, S., & Hipkins, R. (2019). Curriculum Integration: What Is Happening in New Zealand Schools? *New Zealand Council for Educational Research*.
- Muamaroh, M., Hastuti, D. M., & Muzaedah, M. (2024). The Challenge of Implementing Cambridge Curriculum in Elementary School. *Jurnal Pendidikan Bahasa Inggris Undiksha*, 12(3). <https://doi.org/10.23887/jpbi.v12i3.86008>

- Muktamar, A. (2023). Challenges to the Implementation of Assessment in the Merdeka Curriculum. *Cigarskruie: Journal of Educational and Islamic Research*, 1(1), 55–65. <https://doi.org/10.65190/636411>
- Mustadi, A., & Junaidi, A. D. (2024). The Implementation of Cambridge Curriculum in the International Elementary School. *International Journal of Elementary Education*, 8(1), 122–131. <https://doi.org/10.23887/ijee.v8i1.64803>
- Nasir, A. M., Yawan, H., & Saifullah, S. (2023). A Comparative Study: Similarities and Differences Between Indonesia's Curriculum and Philippine's Curriculum. *International Journal of Education, Social Studies, and Management (IJESSM)*, 2(3). <https://doi.org/10.52121/ijessm.v2i3.121>
- Nasywaa, H. S. H., Inayah, D. S., Gibran, S. A., & Elis, S. (2025). Dynamics of Ministerial Change and Curriculum Rotation: Analyzing Indonesian Education Policy Through Literature Study. *Social Impact Journal*, 4(1), 74–82. <https://doi.org/10.61391/sij.v4i1.200>
- Ni'am, M. D., & Raikhan. (2025). Transformation of Educational Curriculum Development in Indonesia: History, Challenges, and Future Opportunities. *GAJIE: Global Journal of Islamic Education*, 1(1), 1–16. <https://doi.org/10.58518/gajie.v1i1.3262>
- Nirwana, R., Hidayati, A. I., Assayyidah Ifcha, F., Azzahra, S. F., Sayyidah, A., & Jannah, R. (2024). Penilaian dalam Kurikulum Merdeka: Mendukung Pembelajaran Adaptif dan Berpusat pada Siswa Madrasah Ibtidaiyah. *Jurnal Madrasah Ibtidaiyah (JMI)*, 2(2), 213–226.
- Padmadewi, N. N., Artini, L. P., & Utami, L. P. R. A. (2020). Teacher Readiness in Promoting 21st-Century Skills in Teaching English as a Foreign Language at Primary Schools. *SOSHUM: Jurnal Sosial dan Humaniora*, 10(3), 271–283. <https://doi.org/10.31940/soshum.v10i3.1976>
- Prabowo, S. A., & Wibowo, A. (2018). The Role of Parental Engagement in Sustaining Dual-Curriculum Schools. *School Leadership & Management*, 38(3), 280–295.
- Pratama, A. B., Martono, T., & Sudarno, S. (2022). Efektivitas Implementasi Kurikulum International Baccalaureate (IB) pada Pembelajaran Ekonomi Kelas X di SMA Al Firdaus Sukoharjo. *BISE: Jurnal Pendidikan Bisnis dan Ekonomi*, 7(2). <https://doi.org/10.20961/bise.v7i2.59810>
- Prihantini, & Hasmar, J. (2024). The Impact of School and Parent Collaboration in Curriculum Implementation in Elementary School Education. *Jurnal Ilmiah Sekolah Dasar*, 8(3), 510–521. <https://doi.org/10.23887/jisd.v8i3.69770>
- Purwati, E., & Sukirman, D. (2024). Teacher Competence Development in Kurikulum Merdeka Implementation: A Literature Study. *Inovasi Kurikulum*, 21(1).
- Rajasekar, S. (2019). The Systems Approach to Curriculum Development. (Unpublished manuscript or online monograph, pp. 1–7).

- Retnawati, H., Hadi, S., & Nugraha, A. C. (2018). Voices of Teachers on the Implementation of the Curriculum. *Journal of Physics: Conference Series*, 1097, 012148. <https://doi.org/10.1088/1742-6596/1097/1/012148>
- Riza, M., Slamet, I., & Pramudya, I. (2025). Analysis of Cambridge Curriculum Implementation in Mathematics Learning in Indonesia: A Systematic Literature Review. *Al-Ta'dib: Jurnal Kajian Ilmu Kependidikan*, 18(1), 1–20. <https://doi.org/10.31332/atdbwv18i1.10728>
- Rusdiyah, E. F., Indrawati, E., & Supriyanti, F. (2021). Policy Inconsistency and Curriculum Reform in Indonesia: A Critical Analysis. *Journal of Education and Learning*, 15(2), 210–220.
- Salmon, Y., Saefudin, D., Mujahidin, E., & Husaini, A. (2024). Development of an Integrated Islamic School Curriculum at Junior High School Level in Islamic Boarding Schools. *Jurnal Impresi Indonesia*, 2(12). <https://doi.org/10.58344/jii.v2i12.4262>
- San Htay, S., & Hadiyanto, H. (2022). Challenges Involved in Multicultural Education Curriculum Development. *Journal of Educational and Learning Studies*, 5(1), 37–41.
- Sari, M. P., & Jihad, A. (2020). Pedagogical Challenges for Teachers in Bilingual Curriculum Implementation. *International Journal of Instruction*, 13(1), 45–58.
- Setiawan, B., & Suwandi, E. (2022). The Development of Indonesia National Curriculum and Its Changes: The Integrated Science Curriculum Development in Indonesia. *Journal of Innovation in Educational and Cultural Research*, 3(4), 528–535. <https://doi.org/10.46843/jiecr.v3i4.211>
- Shalihah, M. A., Ramadani, N., Mellian, Y. A., & Arifmiboy. (2025). Bringing English to Life: The Implementation of the Cambridge Curriculum in SMP Islam Al-Azhar 39 Bukittinggi. *Semantik: Jurnal Riset Ilmu Pendidikan, Bahasa dan Budaya*, 3(1), 239–254. <https://doi.org/10.61132/semantik.v3i1.1414>
- Surayatika, D. (2020). Students' Perception of Teachers' Bilingual Language Use in EFL Classroom. *Global Expert: Jurnal Bahasa dan Sastra*, 8(2), 45–51. <https://doi.org/10.36982/jge.v8i2.963>
- Valmay, A. C., Supriyanto, A., & Sunandar, A. (2025). Dynamic Stakeholder Adaptation to Cambridge Curriculum-Based Learning: Challenges and Strategies. *IJECA (International Journal of Education and Curriculum Application)*, 8(1).
- Widagsa, R. (2022). An EFL Teacher's Perspective on the Implementation of Dual Curriculum (Cambridge and Indonesian K13 National Curriculum) at Mutiara Persada School, Yogyakarta. *ELTICS: Journal of English Language Teaching and English Linguistics*, 7(1), 1–14. <https://doi.org/10.31316/eltics.v7i1.2074>
- Zamroni, Y. S., & Haryanto. (2020). School Curriculum Planning in Integrating National and International Curriculum: A Case Study at Kesatuan Bangsa High School Yogyakarta. In *Proceedings of the 2nd Yogyakarta International Conference on*

*Educational Management and Administration* (YICEMA 2020) (pp. 1-8). <https://doi.org/10.2991/assehr.k.201221.054>

### Author's Biography

	<p><b>Bening Kirana Jingga, S.Pd.</b>    She Was Born in Jakarta on April 2, 2001. She is a graduate of the English Education Bachelor's Program at the State University of Jakarta, Indonesia, completed in 2023. She is currently pursuing a Master's degree in Educational Management at the same institution. Her academic interests include curriculum development, educational management, and international curriculum implementation. Email: <a href="mailto:bkiranajingga@gmail.com">bkiranajingga@gmail.com</a></p>
	<p><b>Dr. Heru Santosa, S.Pd, M.Pd.</b>    He is a lecturer in the Master's Program in Education at the State University of Jakarta (Universitas Negeri Jakarta). He is actively engaged in teaching, academic supervision, and education research. His scholarly interests include educational management, curriculum development, and teacher professional development. He has contributed to various academic activities, including research publications and postgraduate student supervision. Email: <a href="mailto:hsantosa@unj.ac.id">hsantosa@unj.ac.id</a></p>
	<p><b>Dr. H. Sugiarto, M.A.</b>    He is a lecturer in the Master's Program in Education (Magister Pendidikan) at the Faculty of Education (Fakultas Ilmu Pendidikan/FIP) of the State University of Jakarta (Universitas Negeri Jakarta/UNJ). He is engaged in teaching, research, and postgraduate academic supervision, with academic interests in educational management, curriculum studies, and educational policy. He actively contributes to scholarly activities, including research publications and supervising graduate students. Email: <a href="mailto:sugiarto@unj.ac.id">sugiarto@unj.ac.id</a></p>
	<p><b>Dr. Kamaludin, S.Pd.I., M.Pd.</b>    He is a lecturer in the Master's Program in Educational Management at the Faculty of Education, State University of Jakarta (Universitas Negeri Jakarta). He is actively involved in teaching, research, and postgraduate academic supervision. His scholarly interests include educational management, leadership, and education policy. He has contributed to various academic research and professional activities in the field of educational management. Email: <a href="mailto:kamaludin@unj.ac.id">kamaludin@unj.ac.id</a></p>