



Special Schools as NPDL Resource Centers for Inclusion

Reposisi SLB dan ULD sebagai Pusat Sumber NPDL Inklusif

Khoiri Nugraheni¹, Iding Tarsid²

^{1,2} Department of Special Education, Faculty of Educational Sciences, Universitas Pendidikan Indonesia, INDONESIA

Abstract

General Background: Inclusive education prioritizes equity, participation, and quality learning for all students within unified school systems. **Specific Background:** In Indonesia, Special Schools (SLB) and Disability Service Units (ULD) are mandated to support inclusive education and increasingly operate as pedagogical resource centers aligned with the New Pedagogies for Deep Learning (NPDL) framework. **Knowledge Gap:** Empirical and conceptual studies rarely explain how these institutions systematically integrate collaborative inquiry with NPDL to support inclusive transformation at the system level. **Aims:** This study formulates a conceptual framework that repositions SLBs and ULDs as NPDL-oriented resource hubs through structured collaborative inquiry cycles. **Results:** Based on a structured literature review (2020–2024) and thematic synthesis, findings indicate that SLBs and ULDs provide assessment, mentoring, co-teaching, and professional learning communities corresponding to the NPDL Inquiry Cycle—Assess, Design, Implement, Measure, Reflect, and Change—while leadership and institutional capacity serve as key enabling conditions. **Novelty:** The study integrates inclusive education principles, NPDL architecture, and collaborative inquiry into a coherent reform model centered on resource-based institutional transformation. **Implications:** The framework informs policy and practice by outlining leadership preparation, systemic support, and structured professional collaboration as foundations for sustainable, competency-based inclusive education.

Highlights

- Thematic synthesis (2020–2024) confirms institutional mentoring, assessment, and co-teaching functions within inclusive networks.
- Inquiry cycles align deep learning competencies with structured professional collaboration across school systems.
- Leadership preparation and systemic support are foundational for sustainable educational reform.

Keywords: Inclusive Education; Special Schools; Disability Service Units; Collaborative Inquiry; New Pedagogies For Deep Learning

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DeniAdi Putra

**Correspondence:*

Khoiri Nugraheni

khoirin49@outlook.com

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INTRODUCTION

Inclusive education has become a core pillar of global education policy, emphasizing equity, participation, and the right of all learners to access quality education. Yet, the relationship between inclusive and special education remains conceptually complex. As Florian (2019) asserts, inclusive education is not a replacement for special education but a redefinition of difference—viewing learner diversity as a fundamental attribute of all educational environments. In this context, special school (SLB) are increasingly seen not as segregated institutions, but as resource-rich centers that can lead inclusive transformation.

In Indonesia, while inclusive schools often face constraints in expertise, support systems, and adaptive pedagogy, special school (SLB) hold extensive pedagogical experience, particularly in supporting students with disabilities. Recognizing this, national regulations (e.g., Permendiknas No. 70/2009) designate special school (SLB) as potential resource centers. As Brussino (2020) notes, true inclusion requires structural reform—encompassing equitable enrollment systems, curriculum redesign, and whole-school approaches that extend beyond mere accommodations.

Simultaneously, the New Pedagogies for Deep Learning (NPDL) framework (Fullan et al., 2018) provides a pedagogical model rooted in six global competencies—character, citizenship, collaboration, communication, creativity, and critical thinking. When implemented through collaborative inquiry, NPDL fosters inclusive, student-centered learning and sustained professional development.

Despite global advocacy for inclusive practices, few studies—especially in Southeast Asia—have explored the institutional role of special schools as pedagogical resource hubs. Most research has concentrated on classroom-level adaptations or policy development, with limited attention to the transformative capacity of special school (SLB) in supporting broader inclusive reform.

This study responds to that gap by examining how special school (SLB), through collaborative inquiry, can function as resource centers that promote the implementation of NPDL within inclusive education systems. It proposes a conceptual model that repositions special schools as NPDL-aligned professional learning centers, acting as strategic partners in inclusive reform.

This investigation also aligns with Article 24 of the UN Convention on the Rights of Persons with Disabilities (CRPD), which emphasizes the need to dismantle structural and cultural barriers to ensure meaningful participation and learning for all students (De Beco, 2014).

LITERATURE REVIEW

While the global discourse often emphasizes

mainstream schools as the primary site of inclusive reform, emerging research recognizes the potential of special schools—particularly in the Indonesian context—as pivotal resource centers. Scholars such as Loreman (2014) and Florian (2019) advocate for inclusive systems that value diversity and promote shared responsibility among educators. At the same time, frameworks like Fullan’s New Pedagogies for Deep Learning (NPDL) offer a competency-based model that aligns well with inclusive goals, emphasizing collaboration, creativity, and critical thinking.

The Transformative Role of Special Schools

In multi-track education systems like Indonesia’s, special school operate alongside mainstream schools and are increasingly recognized as resource centers under Permendiknas No. 70 Tahun 2009 (Brussino, 2020). Rather than functioning as isolated institutions, Special School are becoming pedagogical hubs, offering training, technical assistance, and mentorship to inclusive schools (Bahrudin et al., 2021). This shift reflects a broader international trend toward integrating specialized expertise into general education systems (Goldan et al., 2022).

While special education systems have historically provided essential support, they often reinforce segregation and marginalization (De Beco, 2014). A gradual transition is needed—redefining special schools not as separate, but as collaborative agents for inclusive reform. Florian (2019) argues that when special schools adopt inclusive values and universal design principles, they can help dismantle systemic barriers and support diversity within mainstream settings.

Collaborative Inquiry: From Reflection to Innovation

Collaborative inquiry is a cyclical process—identifying problems, co-planning, implementing strategies, reflecting, and refining practice—that fosters deep professional learning (Katz & Dack, 2013). It is particularly vital for inclusive education, where shared responsibility and reflective teaching practices are needed to address learner diversity (Loreman, 2014).

Bryant et al. (2020) highlight collaboration as foundational to inclusive pedagogy. Whether through co-teaching, joint lesson planning, or behavior management, general and special educators work as equals in designing responsive instruction. Such collaboration strengthens collective efficacy and makes instructional improvement a shared enterprise. Importantly, co-teaching should be voluntary to promote authentic engagement (Scruggs et al., 2007, as cited in Bryant et al., 2020).

New Pedagogies for Deep Learning (NPDL)

The New Pedagogies for Deep Learning (NPDL) framework (Fullan et al., 2018) supports deep learning through six global competencies—character, citizenship, collaboration, communication, creativity, and critical thinking. Its four-layer structure integrates collaborative inquiry (Layer 4) as a method for refining pedagogy and promoting inclusive practices.

McLeskey et al. (2021) emphasize that school leaders play a critical role in embedding New Pedagogies for Deep Learning (NPDL), especially by protecting instructional time, fostering collaboration, and ensuring progress monitoring. Tools like the Multi-Tiered Systems of Support (MTSS) align with the NPDL Inquiry Cycle—Assess, Design, Implement, Measure, Reflect & Change—allowing instruction to be tailored to diverse learner needs.

METHODS

This study adopts a structured literature review and conceptual framework development approach, appropriate for exploring theoretical relationships between inclusive education, New Pedagogies for Deep Learning (NPDL), and collaborative inquiry practices. The aim is to construct a conceptual model that repositions special schools as resource centers facilitating inclusive transformation through professional collaboration and deep learning competencies.

Source Selection and Inclusion Criteria

Sources were selected based on relevance to three key domains: inclusive education principles, particularly those articulated by Loreman and Florian; the NPDL framework, emphasizing the six global competencies and its layered implementation model; and collaborative inquiry cycles, rooted in action research and school-based professional learning communities. Only peer-reviewed journal articles, scholarly books, and institutional reports published between 2020 to 2024 were included. Publications were required to be available in English and Indonesian language, and directly inform the theoretical model under construction. Editorials, opinion pieces, and unrelated pedagogical models were excluded.

Thematic Synthesis and Matrix Development

To ensure analytical coherence, the literature was examined using a thematic synthesis approach informed by Miles and Huberman (1994). This process consisted of:

1. Data reduction, where relevant text segments were coded to identify recurring concepts.
2. Data display, in the form of a thematic matrix summarizing the contributions of key texts to the three conceptual domains.
3. Conclusion drawing, which involved synthesizing the matrix into a comprehensive framework guiding the study's proposition.

The matrix enabled comparative analysis across sources, highlighting both convergences and conceptual gaps. It also supported transparent mapping of how each selected reference informed the design of the proposed framework, ensuring thematic clarity and intellectual integration.

Validation Strategies

To ensure the rigor and credibility of the conceptual

model, the thematic coding and matrix development underwent inter-rater validation. Two independent reviewers cross-checked the literature classifications and interpretations. Discrepancies were resolved through collaborative discussion. In addition, triangulation across conceptual literature, empirical studies, and policy frameworks ensured that insights were not drawn from a single genre of evidence.

Theoretical Foundations for Framework Design

The conceptual framework itself integrates multiple theoretical sources: Loreman's inclusive education principle emphasizing equity, participation, and collaboration; Fullan's NPDL framework, particularly its Layer 3 (system conditions) and Layer 4 (collaborative inquiry) structures; and Katz and Dack's (2013) cyclical model of collaborative inquiry as an engine for professional growth. These elements are operationalized within the context of special schools acting as mentoring hubs, guiding inclusive instructional change and deep learning integration.

Figure 1 Proposed Conceptual Framework

This methodological structure enables the study not only to synthesize diverse conceptual strands but also to offer a practical model for implementation in multi-track education systems like Indonesia's. By embedding the review within a thematic matrix and validating through inter-rater consensus, the approach balances conceptual depth with methodological transparency.

FINDINGS AND DISCUSSION

This section synthesizes findings from a structured literature review with thematic synthesis both global and regional studies. These insights are woven into the study's conceptual framework to analyze the role of special school as resource centers. It explores how these schools embed collaborative inquiry with the New Pedagogies for Deep Learning (NPDL) framework. Central to this analysis is the NPDL the Inquiry Cycle—Assess, Design, Implement, Measure, Reflect, and Change—offers a structured pathway for inclusive transformation, positioning special schools as key agents in professional and instructional development.

Thematic Synthesis Process

To build a robust conceptual framework grounded in both global theory and local practice, this study employed a systematic thematic synthesis approach. This process followed three key phases: data Reduction, data display, and conclusion drawing.

Relevant literature published between 2020 and 2024 was systematically reviewed and coded to extract recurring concepts related to the evolving role of special schools (SLB) and Disability Service Units (ULD) as inclusive resource centers. Special attention was given to themes intersecting inclusive education policy, collaborative inquiry, and NPDL-

aligned pedagogies. Key national and institutional sources included Susilawati et al. (2020), Ishartiwi (2023), Hikmat (2021), as well as academic outputs accessed in Google Scholars.

The extracted data were organized into a thematic matrix (see Table 1), categorizing how each study contributed to one or more of the framework's core dimensions: Inclusive Education Principles (drawing from Loreman and Florian), the New Pedagogies for Deep Learning (NPDL) model, and Collaborative Inquiry processes. This visual mapping allowed for comparison across studies and revealed patterns in implementation strategies, leadership roles, and structural supports within inclusive settings.

Table 1 Thematic Matrix (2020 – 2024)

The thematic matrix directly informed the refinement of the conceptual model used in this study. Specifically, it illuminated how each phase of the NPDL Inquiry Cycle—Assess, Design, Implement, Measure, Reflect & Change—is enacted within Special Schools (SLB) and Disability Service Units (ULD) contexts. These findings strengthened the model's applicability for understanding how special schools can systematically support inclusive education through embedded professional learning and distributed leadership.

Special Schools as Catalysts for Inclusive Reform

The analysis affirms that Special Schools (SLB) and Disability Service Units (ULD) in Indonesia—particularly in regions such as Malang and Yogyakarta—are playing a growing role as pedagogical resource centers within the national inclusive education agenda. Susilawati et al. (2020) highlight that SLBs have expanded their functions beyond segregated service delivery by offering assessment, resource-sharing, teacher training, and materials support, including Braille literacy tools. Similarly, Ishartiwi (2023) documents how ULDs support mainstream institutions through program adjustments, individualized training, and capacity building. However, these initiatives are often constrained by limited staffing, underfunding, and low public visibility.

These emerging practices resonate with the Assess and Design phases of the Collaborative Inquiry Cycle, where learning needs are identified and co-constructed solutions—such as differentiated instruction and curriculum adaptations—are collaboratively planned. This reflects Brussino's (2020) assertion that inclusive reforms must move beyond individual accommodations and address broader systemic inequalities, especially in curriculum access and teacher preparedness. To bridge these disparities, resource centers must be equitably distributed and institutionally supported to lead curriculum co-design, embed Universal Design for Learning (UDL) principles, and promote context-responsive pedagogies.

As hubs of expertise, SLBs are uniquely positioned to mentor mainstream educators, model inclusive strategies, and lead system-wide instructional innovation. These functions are further amplified through the Design and Implement stages of the NPDL Inquiry Cycle, where collaborative teams translate inclusive goals into classroom practices grounded in the six global competencies. This approach transforms SLBs into

centers of professional learning aligned with deep learning principles—moving beyond the traditional role of segregated instruction toward one of instructional leadership and systemic capacity building.

An expanding body of literature affirms this repositioning. Bahrudin et al. (2021) describe SLBs as active agents of change, providing services ranging from diagnostic assessments to professional mentoring. De Beco (2014) reinforces this by framing inclusive education not merely as a policy preference but as a legal and human rights obligation under frameworks like the UNCRPD. He further notes that inclusive systems are not only more socially just but also more cost-effective than parallel, segregated structures.

In sum, reimagining SLBs / ULDs as resource centers supports both the moral imperatives and operational requirements of inclusive education. Grounded in the NPDL framework and structured through collaborative inquiry, these institutions are positioned to lead Indonesia's inclusive transformation from the inside out.

The Role of Leadership in Inclusive Transformation

As demonstrated in thematic matrix, leadership consistently emerges as a pivotal factor in successful inclusive education reform. Effective collaborative inquiry depends not only on teacher engagement but also on strong leadership that can cultivate a school culture of reflective practice, data-informed decision-making, and sustained collaboration. Leaders must actively structure opportunities for collective dialogue, build trust, and guide teams through each stage of the inquiry process—particularly during the *Measure* and *Reflect & Change* phases. When Special Schools (SLB) leaders take on the role of resource center facilitators, they help embed inquiry cycles into broader school improvement strategies, positioning inclusive education not as an isolated initiative but as an integral part of systemic reform.

However, the evidence indicates a persistent gap in leadership preparation. Melloy et al. (2022) emphasize that visionary leadership—defined by a proactive stance on inclusion and a commitment to high expectations for all learners—is what distinguishes superficial policy compliance from authentic transformation. Despite growing recognition of the importance of inclusive leadership, many principals remain ill-prepared to meet this challenge. Pazey and Cole (2013) found that educational leadership programs often neglect to include adequate training in special education, resulting in school leaders who approach inclusion as a matter of legal compliance rather than instructional transformation.

This lack of preparation has significant implications. Without the skills to mentor staff, lead instructional change, or integrate inclusive practices into everyday school functioning, principals may struggle to support both special and general educators. When Special Schools (SLB) are expected to function as resource centers, their leaders must be equipped not only with administrative knowledge but with the pedagogical and relational competencies necessary to coach others and lead distributed professional learning.

To this end, inclusive leadership requires the intentional design of school structures that support collaborative practice.

As noted by Billingsley et al. (2021) and DeMatthews et al. (2021), principals play a critical role in creating the conditions for effective inclusion—such as setting aside time for co-planning, facilitating shared goal setting, and sustaining professional learning communities. By aligning school vision, resources, and scheduling with inclusive priorities, school leaders enable educators to collaborate meaningfully across roles and disciplines. In doing so, they ensure that the goals of inclusion are translated into daily practice, not confined to policy rhetoric.

New Pedagogies for Deep Learning (NPDL) in Special School settings

The New Pedagogies for Deep Learning (NPDL) framework presents a comprehensive model for integrating inclusive education values with innovative, student-centered pedagogies. Developed by Fullan et al. (2018), NPDL emphasizes the cultivation of six interrelated global competencies—character, citizenship, collaboration, communication, creativity, and critical thinking—collectively referred to as the 6Cs. These competencies provide a scaffold for inclusive learning by promoting student agency, meaningful engagement, and identity development across diverse learning profiles.

In contrast to the traditional special education paradigm, which often focuses on individualized supports within segregated settings, NPDL advocates for universally designed, deep learning experiences that serve all students equitably. By foregrounding relevance, collaboration, and differentiation, NPDL offers a pathway for bridging the long-standing divide between special and general education. Its emphasis on authentic, real-world learning aligns directly with inclusive education's core objective: not merely to provide access, but to ensure full participation and success for every learner. Within this framework, Special Schools (SLB)—functioning as resource centers—are uniquely positioned to model how competency-based and differentiated instruction can transform mainstream classrooms (Quinn et al., 2020).

Moreover, NPDL incorporates a dynamic, inquiry-based cycle that supports continuous instructional improvement through collaborative planning, feedback, and adaptation. Educators engage in co-design processes, often in interdisciplinary teams, to craft lessons that reflect both academic goals and students' lived experiences. Tools such as Deep Learning Progressions are employed to assess not only cognitive growth but also socio-emotional and interpersonal development—dimensions particularly vital for students with special educational needs. This approach disrupts the binary between “special” and “inclusive” by embedding inclusive principles within the core design of teaching and learning.

The operationalization of the NPDL framework in special school (SLB) settings has already shown promising alignment with inclusive goals. Recent studies illustrate how SLB resource centers support deep learning in subjects such as science and literacy by fostering critical thinking, creativity, and collaboration—hallmarks of the 6Cs. These efforts are particularly evident in the *Implement* stage of the inquiry cycle, where SLBs model instructional strategies grounded in

Universal Design for Learning (UDL). Such practices not only benefit students with disabilities but also enhance learning environments for all, illustrating the transformative potential of SLBs as agents of inclusive, high-impact pedagogy.

Collaborative Inquiry as Professional Growth

Collaborative inquiry lies at the heart of this inclusive transformation model. Special schools (SLBs) and Disability Service Units (ULDs) serve as facilitators of professional learning communities, enabling cross-role collaboration and mutual capacity building. Said et al. (2023) document a case study in Kendari where an inclusive education initiative led by SLBs “successfully enhances collaboration among stakeholders, provides relevant training, and creates inclusive facilities.” This example underscores the vital role of collaborative structures in anchoring sustainable inclusive practices. Within such frameworks, inquiry cycles—including the stages of designing, piloting, and reflecting—are enacted not as isolated practices but as institutional routines that deepen pedagogical ownership and engagement across diverse educator teams.

As Donohoo (2013) and Loreman (2014) argue, collaborative inquiry should be understood not merely as a reflective activity but as a mechanism for adaptive pedagogy and systems-level change. These cycles build collective efficacy among educators by centering evidence-informed decision-making and co-responsibility for learner success. Through sustained collaborative experimentation, educators generate and refine inclusive strategies that are responsive to their unique school contexts. As such, SLBs and ULDs become more than support institutions—they evolve into engines of innovation that model how inclusive education can be both equitable and transformative when rooted in authentic, collaborative professional learning.

Implications for Practice and Policy

This study affirms the vital role that special schools (SLBs) and Disability Service Units (ULDs) can play in leading inclusive education reform, particularly when positioned as resource centers that guide inquiry-based professional learning. The evidence underscores the need for intentional structural and policy interventions across practice, leadership development, and research.

From a practice perspective, the findings emphasize the importance of establishing collaborative inquiry mechanisms within school systems. SLBs are well-positioned to lead the creation of inquiry teams, co-teaching laboratories, and professional learning communities (PLCs) that foster a culture of reflective experimentation. These spaces enable educators to engage in iterative cycles of planning, piloting, reflecting, and adapting teaching strategies—aligned with the NPDL Inquiry Cycle. By modeling and mentoring inclusive pedagogical approaches, SLBs help embed differentiated, student-centered practices into mainstream settings, ultimately fostering sustainable instructional transformation.

On the policy front, there is an urgent need to enhance leadership preparation for inclusive education. As McLeskey et al. (2021) argue, many existing leadership programs do not

adequately prepare school leaders to form collaborative teams, implement inclusive pedagogy, or lead data-informed decisions for students with disabilities. To address this, licensure and administrator preparation standards must explicitly incorporate inclusive leadership competencies. Moreover, education policy should support the transformation of Special Schools (SLB) into fully functional resource centers through dedicated funding streams, infrastructure for inter-school collaboration, and institutional mechanisms that encourage distributed leadership and shared accountability. These policy changes are essential to ensure that the inquiry-driven reform process is not only initiated but sustained over time.

In terms of research, further studies are needed to assess the long-term and system-wide impacts of SLB-led resource center models. Longitudinal research across diverse regional contexts would provide insights into how such models affect instructional quality, student engagement, and equity outcomes. This includes examining how variations in policy implementation, socio-economic context, and institutional readiness influence the scalability and effectiveness of collaborative inquiry structures.

Finally, it is essential to avoid the common pitfall of replicating exclusionary practices under the banner of inclusion. Florian (2019) warns against the reliance on individualized education plans (IEPs) and categorical placements that preserve dual-track systems. Instead, special schools—reimagined as resource hubs—must model how inclusive systems can evolve from differentiated, inquiry-based practices. This means adapting the system to meet the needs of learners, rather than expecting learners to conform to a rigid system. Inclusive school and SLB leaders must be empowered to co-lead instructional improvement efforts, aligning IEP goals with universal instructional design and data-informed scheduling. Such integration ensures equity and coherence in students' learning experiences.

By fostering reflective professional learning cultures anchored in collaborative inquiry, SLBs and ULDs can become transformative agents within inclusive networks. Their leadership in guiding inquiry, mentoring mainstream educators, and embedding inclusive pedagogy contributes to a shared vision of educational equity—where deep learning and meaningful participation are available to all students.

CONCLUSIONS

The thematic synthesis confirms that special schools (SLB) and Disability Service Units (ULDs) in Indonesia can function as New Pedagogies for Deep Learning (NPDL)–aligned resource centers, effectively bridging theory and practice through collaborative inquiry. By harnessing their specialized expertise, these institutions can lead system-level inclusive transformation rooted in deep learning. This study advances the field by offering a robust, contextually relevant blueprint for educational equity that positions SLBs not on the margins but at the core of inclusive reform. Grounded in Florian's (2019) post-Salamanca vision, this model

champions shared responsibility, reflective practice, and pedagogical innovation, recasting learner diversity as an asset rather than a challenge.

A key finding is the transformative power of collaborative inquiry in harmonizing NPDL's six global competencies with inclusive educational goals. As resource centers, special schools are well-placed to develop, implement, and disseminate inclusive pedagogies through structured cycles of reflection and dialogue. The study calls for the formal establishment of collaborative inquiry teams—comprising special and general educators—where inclusive strategies are co-designed, piloted, and refined. Further, SLBs should lead practice-based mentoring initiatives, including co-teaching demonstrations and reflective workshops in partner schools. This embedded, inquiry-driven professional development strengthens teacher agency and enhances classroom effectiveness.

On the policy front, the study highlights the urgency of operationalizing special schools as resource centers, in line with Permendiknas No. 70 Tahun 2009. Achieving this requires targeted funding for specialized staffing, integrated data systems, and continuous professional learning—structural supports essential for enabling consultation, capacity building, and pedagogy innovation across school networks. To evaluate the model's long-term impact, longitudinal and comparative studies aligned with the NPDL framework are vital. Such research can elucidate collaborative inquiry's effects over time, inform regional policy adaptation, and identify enablers of effective implementation and scalability.

Following De Beco's (2014) guidance, the transition toward inclusive systems must be gradual to safeguard access for students with disabilities. Rather than dismantling SLBs, repurposing them as resource-rich hubs—embedded within or closely connected to mainstream schools—provides a balanced, rights-based path that honors both Article 24 of the UN CRPD and NPDL's pedagogical principles. This twin-track model (Brussino, 2020) supports local flexibility and maintains specialized expertise, meeting diverse learner needs without reverting to segregation. Critically, ensuring equitable implementation requires resource centers to be strategically located and well-funded—addressing socio-economic, geographic, and stratification inequalities.

Leadership emerges as a pivotal factor in this transformation. Inspirational, inclusive leaders are not optional—they are fundamental. Realizing the full potential of SLBs as resource centers requires reimagined educational leadership programs that mold administrators equipped for inclusive inquiry, distributed leadership, and systemic pedagogy change. Empowered leaders can position special schools at the heart of inclusive education, transforming them from peripheral to catalytic—catalytic agents for lasting and equitable educational transformation.

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Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Figure 1 Proposed Conceptual Framework

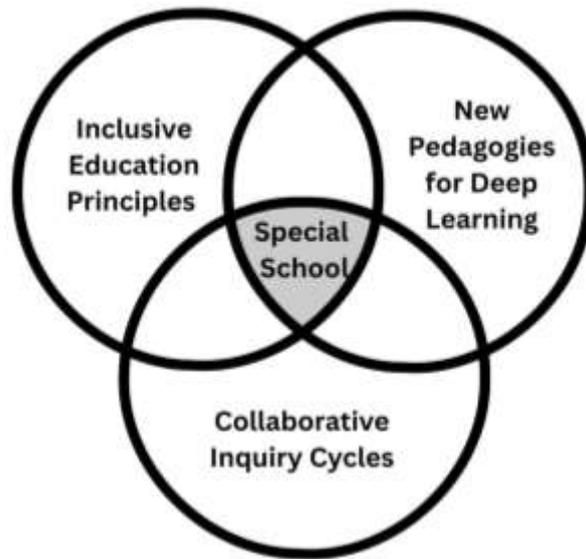


Table 1 Thematic Matrix (2020 – 2024)

| Authors | Inclusive Education | NPD L | Collaborative Inquiry / PLC | Key Implication |
|------------------------------------|--|---|--|---|
| Susilawati et al. (2020) | Defines SLB as resource centers that support inclusion via assessments and teacher guidance. | Supports competency-based professional development aligned with global 6 Cs. | Resource centers provide guided training, mentoring, and co-planning. | Affirms SLB' roles in assessment, consultation, and capacity-building within inclusive networks. |
| Bahrudin et al. (2021) | Emphasizes SLB' institutional mandate to support inclusive classrooms through specialized services and resource sharing. | Implicit link to system-wide support for competency-based learning through structured consultation and intervention planning. | Positions SLB as mentors and facilitators in inclusive implementation, suggesting an embedded inquiry model. | Validates SLBs as anchors for inclusive transformation—highlighting assessment, mentoring, training, and pedagogical modeling as key components of resource center roles. |
| Hikmat (2021) | Identifies policy–practice gaps, inadequate facilities, and need for systemic reform. | Recommends flexible, deep-learning-aligned curricula. | Calls for structured collaborative professional learning teams (PLCs). | Stresses systemic infrastructure and staffing needed for inquiry-driven NPD L integration. |
| Said et al. (2021) | Documents community-based forums supporting inclusive education. | Training included partnership and co-creation, resonating with Layer 4. | Collaborative forum enabled co-teaching and community-led curriculum design. | Validates local collaborative structures for inclusive deep-learning interventions. |
| Ishartiwi (2023) | Highlights ULD's central role in offering specialist resources and teacher support. | Implicitly aligns specialized support with deep-learning pedagogy in Layers 3–4. | ULD teams coordinate, guide, and monitor inclusive teaching practices. | Emphasizes institutional resource units as nodes for integrating NPD L and leadership. |
| Maryanti et al. (2023) | Demonstrates need for curriculum adaptations in SLB for all learners. | Differentiated science lessons promote critical thinking and collaboration (6 Cs). | Teachers engage in action-research-like cycles of design and reflection. | Illustrates SLB inquiry practices strengthening inclusive pedagogy across curricular domains. |
| Hanafi & Wiyanti (2022) | Shows community support and reveals gaps in teacher readiness for inclusion. | Advocates for competency-based curriculum adaptations in line with NPD L. | Emphasizes inter-stakeholder collaboration to scale inclusion via inquiry. | Reinforces importance of community–school partnerships in implementing NPD L through collaborative inquiry. |

