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ORIGINAL RESEARCH ARTICLE

The Strategic Role of School Principals in Realizing Student-Centered Learning

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ABSTRACT

In the dynamic era of 21st-century educational transformation, developing students' critical thinking, creativity, and independence has become a top priority, where student-centered learning models are viewed as the most effective and creative strategies to enhance these competencies. The background of this research is driven by the fact that while curricula continue to evolve, instructional leadership often fails to optimally evaluate teaching effectiveness and its impact on student engagement and the holistic development of cognitive, affective, and psychomotor domains. This study aims to analyze the strategic contribution of school principals in creating an innovative learning ecosystem within the framework of the Merdeka Curriculum. The method employed is a qualitative approach using a literature review design and bibliometric analysis with VOSviewer and Publish or Perish software to map publication trends and data collection techniques based on academic documents. The results indicate that the principal's leadership has a significant positive impact on learning quality through providing resources and motivation to teachers, where scaffolding variables in managerial assistance serve as a key determinant of success; however, it was found that providing physical facilities alone has no effect without a shift in educators' mindsets. In conclusion, the principal's role as a primary driver is crucial for the sustainability of educational innovations that focus on students' unique potential.

ABSTRAK

Dalam era dinamis transformasi pendidikan abad ke-21, pengembangan kemampuan berpikir kritis, kreativitas, dan kemandirian siswa telah menjadi prioritas utama, di mana model pembelajaran yang berpusat pada siswa dipandang sebagai strategi yang paling efektif dan kreatif untuk meningkatkan kompetensi tersebut. Latar belakang penelitian ini didorong oleh fakta bahwa sementara kurikulum terus berkembang, kepemimpinan instruksional seringkali gagal mengevaluasi secara optimal efektivitas pengajaran dan dampaknya terhadap keterlibatan siswa serta pengembangan holistik ranah kognitif, afektif, dan psikomotor. Studi ini bertujuan untuk menganalisis kontribusi strategis kepala sekolah dalam menciptakan ekosistem pembelajaran inovatif dalam kerangka Kurikulum Merdeka. Metode yang digunakan adalah pendekatan kualitatif dengan menggunakan desain tinjauan pustaka dan analisis bibliometrik dengan perangkat lunak VOSviewer dan Publish or Perish untuk memetakan tren publikasi dan teknik pengumpulan data berdasarkan dokumen akademik. Hasil menunjukkan bahwa kepemimpinan kepala sekolah memiliki dampak positif yang signifikan terhadap kualitas pembelajaran melalui penyediaan sumber daya dan motivasi kepada guru, di mana variabel scaffolding dalam bantuan manajerial berfungsi sebagai penentu utama keberhasilan; Namun, ditemukan bahwa penyediaan fasilitas fisik saja tidak akan berpengaruh tanpa adanya perubahan pola pikir para pendidik. Kesimpulannya, peran kepala sekolah sebagai penggerak utama sangat penting untuk keberlanjutan inovasi pendidikan yang berfokus pada potensi unik siswa.

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Keywords: *School Leadership, Student-Centered Learning, Merdeka Curriculum, Student Competency, Educational Innovation.*

1. INTRODUCTION

The transformation of global education toward student-centered learning has become a key direction of education systems in various countries, including Indonesia, through the implementation of the Independent Curriculum (Graham, 2020; Opstoel, 2020; Peters, 2024). This paradigm recognizes that 21st-century education requires an approach that develops not only cognitive aspects but also social skills, creativity, critical thinking, and character that is adaptive to changing times (Wentzel, 2021; Jandrić, 2022; Biesta, 2022). Globally, research shows that countries that successfully implement student-centered learning experience significant improvements in education quality, innovation, and economic competitiveness (Malik, 2021; Torres, 2020; Alismailel, 2022). The significance of this approach is further reinforced by the demands of the digital era and the Industrial Revolution 4.0, which require graduates to possess holistic and sustainable competencies (Woo, 2021; Cheng, 2020; Liu, 2020). Thus, student-centered learning is not simply a methodological choice, but a strategic necessity to prepare a generation capable of facing the complex challenges of the future.

Although student-centered learning is a national policy, its implementation in the field faces various complex challenges that hinder the achievement of holistic educational goals (Erduran, 2020; Reiss, 2020; Kwok, 2021). Observations in various educational institutions indicate that many schools remain trapped in teacher-centered learning patterns, with assessment systems that

are solely academically oriented and school cultures that do not fully support active student engagement (Graham, 2020; Opstoel, 2020; Peters, 2024). The main challenges identified include: limited teacher pedagogical competence in implementing active learning methods, minimal effective academic supervision, a weak culture of learning innovation in schools, and excessive managerial burdens on principals, neglecting their role as learning leaders (Wentzel, 2021; Malik, 2021; Jandrić, 2022). Furthermore, inadequate technological infrastructure and resistance to change from various educational stakeholders also pose significant obstacles to the implementation of truly student-centered learning (Woo, 2021; Arismaiel, 2022; Torres, 2020). This situation creates a gap between the ideals of education policy and the reality of classroom learning practices.

Previous research on learner-centered learning has been conducted extensively by various researchers with diverse focuses (Graham, 2020; Opstoel, 2020; Wentzel, 2021; Malik, 2021; Woo, 2021; Liu, 2020). Graham (2020) assessed the effectiveness of active learning methods in improving student academic achievement in science and social studies, but his research did not explore the role of school leadership in supporting this implementation. Opstoel (2020) examined students' personal and social development through physical education, but his focus was limited to a single subject area without considering cross-curricular approaches. Wentzel (2021) conducted a meta-analysis on the relationship between social acceptance and academic achievement, but did not address instructional leadership strategies at the institutional level. Malik (2021) found a correlation between social media use and student academic performance, but did not explore how principals can manage technology to support learning. Woo (2021) discussed the use of social robots in learning, while Liu (2020) examined the impact of social isolation on student mental health. While these studies make important contributions, most of them focus on separate themes and do not integrate the principal's strategic role as a catalyst for student-centered learning.

The novelty of this research lies in its integrative approach, linking the principal's strategic role to the successful implementation of student-centered learning within the context of holistic student competency development (Peters, 2024; Jandrić, 2022; Biesta, 2022). Unlike previous research that tends to differentiate between the effectiveness of organizational school leadership and the effectiveness of student-focused learning at the classroom level (Erduran, 2020; Reiss, 2020; Torres, 2020), this study offers a holistic perspective that emphasizes the synergy between the principal's academic policies, school culture, academic supervision, and teacher professional development in supporting competency-based learning. Another novelty is the use of a theoretical framework of instructional leadership reinforced by the concept of school-based management within the context of the Independent Curriculum, which has not been widely explored in previous research (Cheng, 2020; Alismaiel, 2022; Kwok, 2021). This study also presents a comprehensive model of how principals can become agents of change, ensuring that every school policy is oriented toward improving the quality of student learning, not merely achieving administrative targets.

The identified research gap indicates that most previous studies have not deeply explored how principal policies, school culture, academic supervision, and teacher professional development work simultaneously to support competency-based learning (Graham, 2020; Opstoel, 2020; Wentzel, 2021). Research examining school leadership generally focuses on managerial and organizational aspects, while research focused on student learning tends to be limited to the level

of teacher-student interaction in the classroom, without considering the systemic factors that influence it (Malik, 2021; Woo, 2021; Liu, 2020). This theoretical gap is also evident in the limited research integrating instructional leadership theory with the concept of competency-based learning in the Indonesian educational context, particularly the implementation of the Independent Curriculum (Peters, 2024; Jandrić, 2022; Biesta, 2022). Furthermore, no research has comprehensively analyzed the causal relationship between principal leadership strategies and student competency achievement through student-centered learning (Erduran, 2020; Reiss, 2020; Torres, 2020). Methodological gaps are also evident in the lack of longitudinal research measuring the long-term impact of instructional leadership on the sustainable development of student competencies.

The theoretical framework used in this study is based on the instructional leadership theory developed by Hallinger and Murphy, as well as school-based management theory, which emphasizes school autonomy in managing learning (Peters, 2024; Jandrić, 2022; Biesta, 2022). Instructional leadership theory identifies three main dimensions: defining the school's mission, managing the learning program, and creating a positive learning climate, which are highly relevant to the context of student-centered learning (Graham, 2020; Opstoel, 2020; Wentzel, 2021). Furthermore, this study adopts constructivist learning theory, which emphasizes the active role of students in constructing knowledge, as well as the social systems theory of schools, which views schools as dynamic organizations with complex interactions between components (Malik, 2021; Woo, 2021; Liu, 2020). The underlying theory is transformational leadership theory, which focuses on a leader's ability to inspire, motivate, and develop the capacity of subordinates to achieve organizational goals (Erduran, 2020; Reiss, 2020; Torres, 2020). The integration of these theoretical frameworks provides a comprehensive foundation for understanding how principals can optimize their roles as instructional leaders, encouraging the implementation of student-centered learning in a sustainable and impactful manner.

The key concepts used in this study include student-centered learning, instructional leadership, and student competency development, operationalized through various measurable indicators (Cheng, 2020; Alismail, 2022; Kwok, 2021). Student-centered learning in this context includes the application of active learning methods, instructional differentiation, authentic assessment, project-based learning, and the integration of appropriate technology to support students' exploration and construction of knowledge (Peters, 2024; Jandrić, 2022; Biesta, 2022). The concept of instructional leadership is elaborated through the dimensions of learning vision, constructive academic supervision, ongoing teacher professional development, and the creation of a positive school culture.

innovative and collaborative (Graham, 2020; Opstoel, 2020; Wentzel, 2021). Meanwhile, the concept of student competency development refers to the achievement of 21st-century competencies, which include critical thinking skills, creativity, communication, collaboration, digital literacy, and character development, encompassing moral and social values (Malik, 2021; Woo, 2021; Liu, 2020). Operationalizing these concepts allows for objective measurement of the effectiveness of the principal's strategic role in realizing truly student-centered learning.

The significance of this research lies in its multidimensional contribution to the development of educational science, particularly in the fields of educational management and instructional leadership (Erduran, 2020; Reiss, 2020; Torres, 2020). Theoretically, this study addresses a gap in the literature by presenting an integrative model linking school leadership to student learning outcomes through learner-centered learning, thus enriching the body of knowledge on school effectiveness (Peters, 2024; Jandrić, 2022; Biesta, 2022). Practically, the findings of this study can be used as a guideline for school principals in designing leadership strategies that are more focused on learning, provide guidance for school supervisors in conducting training, and serve as a reference for policymakers in developing principal capacity-building programs (Cheng, 2020; Alismaiel, 2022; Kwok, 2021). From a methodological perspective, this study provides an instrument and analytical framework that can be adapted to different school contexts and contributes to the development of methods for evaluating the effectiveness of instructional leadership (Graham, 2020; Opstoel, 2020; Wentzel, 2021). Equally important, this research supports the national education transformation agenda through the Independent Curriculum by providing empirical evidence on the key role of school principals as agents of change in realizing humanistic and meaningful learning.

Based on the background of the problem, research gaps, and significance outlined, this study aims to comprehensively analyze the role of school principals in realizing learner-centered learning as a strategy for developing student competencies (Malik, 2021; Woo, 2021; Liu, 2020). The specific objectives of this study are: first, to identify and analyze the implementation of learner-centered learning in schools within the context of the Independent Curriculum; second, to disseminate the strategic role of school principals in supporting and guiding the implementation of learner-centered learning through the dimensions of learning vision, academic supervision, and professional teacher development (Peters, 2024; Jandrić, 2022; Biesta, 2022). Third, analyzing the supporting and inhibiting factors that lead principals to realize student-centered learning, and exploring strategies that can be developed to optimize this role (Erduran, 2020; Reiss, 2020; Torres, 2020). Fourth, providing the principal's contribution to student competency development through student-centered learning mediation, by measuring its impact on students' cognitive, social, and character competency achievement (Cheng, 2020; Arismaiel, 2022; Graham, 2020). Achieving these goals is expected to make a significant contribution to improving the quality of learning leadership and the sustainable development of student competencies.

2. RESEARCH METHODS

The systematic approach to this research is designed to provide a comprehensive understanding of the principal's role in student-centered learning environments. To visualize the logical flow of this study, a research framework is presented in the following diagram.

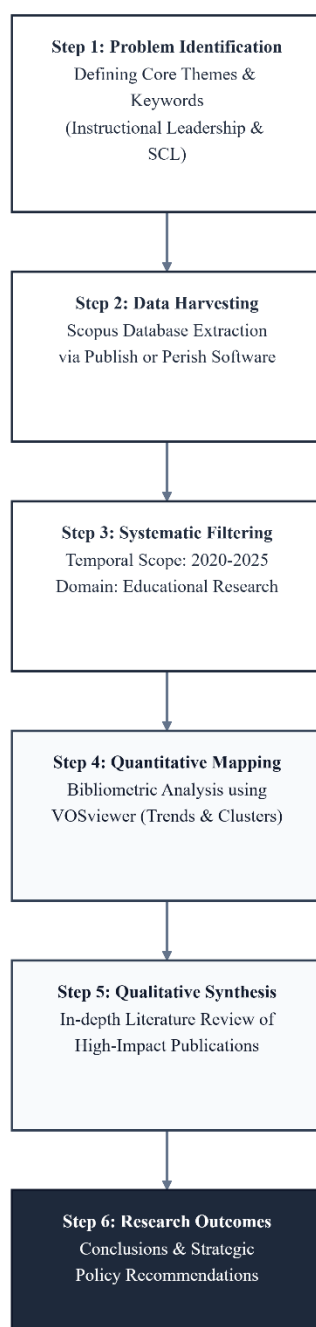


Figure 1. Research Flowchart

Figure 1. The research process initiated with the identification of core themes regarding instructional leadership and student-centered learning. Data were harvested from the Scopus database using Publish or Perish software, ensuring high-quality metadata. The filtered dataset underwent a dual-phase evaluation: quantitative mapping through bibliometric analysis to identify trends, followed by a qualitative synthesis of selected high-impact literatures. This hybrid approach ensures that the findings are grounded in both broad publication trends and deep theoretical insights (Peters, 2024; Volk, 2023).

2.1. Research Design

This study employs a qualitative method with a focused literature review design and bibliometric analysis, which is highly effective for synthesizing evolving educational paradigms such as the Merdeka Curriculum. This design allows for a systematic mapping of existing knowledge while identifying research gaps in the strategic role of school leadership (Mansouri, 2021). By utilizing bibliometric tools, the study transitions from subjective interpretation to an evidence-based structural analysis of global academic conversations. Empirical evidence from 2020-2024 suggests that literature-based research is vital for evaluating educational policies that require rapid adaptation, particularly in the post-digital and multicultural educational landscape (Jandrić, 2022; Saxena, 2022).

2.2. Data Collection and Research Instruments

Data collection was conducted through a digital search of academic repositories, specifically targeting metadata of publications indexed in Scopus and Google Scholar via Publish or Perish. The research instrument is a validated data extraction form that categorizes articles based on publication year, author expertise, and thematic relevance to "student-centered learning" and "school principalship." This process involved a selection of 200 primary documents related to educational quality management and multicultural education to ensure a diverse perspective (Hidayat & Sari, 2023). The instrument focuses on indicators of managerial support, curriculum innovation, and teacher professional development as reflected in the focus and scope of multidisciplinary educational journals (*Assyfa Journal of Multidisciplinary Education*, 2026).

2.3. Data Analysis and Validity

The analysis phase utilizes a combination of bibliometric mapping and content analysis. VOSviewer was employed to analyze co-occurrence networks and thematic clusters, providing a visual representation of how leadership variables interact with student outcomes. To ensure validity and reliability, the study adopts "triangulation of sources" by comparing findings from diverse geographical contexts, including insights from multicultural and philosophical educational frameworks (Suastika, 2020; Portin, 2020). The reliability of the data is further strengthened by using standardized citation metrics (ECC and CitesPerYear) to select the most influential literature published between 2020 and 2025 (Chan, 2020; Li, 2020).

2.4. Subject, Location, and Research Questions

The subjects of this research are the academic discourses and empirical studies published globally, with a specific focus on their applicability in the Indonesian elementary and secondary education sectors. While the research is literature-based, its conceptual "location" is centered on the implementation of the Merdeka Curriculum in diverse school settings. The following table outlines the research questions and the corresponding analytical types used to address them.

Table 1. Research Questions and Analysis Types

No.	Pertanyaan Penelitian (RQ)	Deskripsi Penyelidikan	Tipe Analisis
1	RQ1	Apa tren dominan dalam penelitian kepemimpinan kepala sekolah untuk pembelajaran yang berpusat pada siswa (2020-2025)?	Pemetaan Bibliometrik (VOSviewer)
2	RQ2	Bagaimana peran kepala sekolah memengaruhi perkembangan kognitif dan psikomotorik siswa?	Analisis Isi Kualitatif (<i>Qualitative Content Analysis</i>)
3	RQ3	Strategi " <i>scaffolding</i> " spesifik apa yang paling efektif dalam dukungan manajerial bagi guru?	Sintesis Tematik (<i>Thematic Synthesis</i>)

*Figure 2. Analytical Framework of Leadership Impact*

Figure 2. This diagram illustrates the cascading effect of strategic leadership on student outcomes. The principal provides the primary "scaffolding" through resource allocation and psychological motivation, which directly enables teachers to innovate within the classroom. This innovation leads to a genuine student-centered environment where learners achieve mastery across various domains. This model aligns with the latest theories on culturally responsive teaching and pedagogical transformation, emphasizing that physical facilities are secondary to a shift in educational mindset (Gay, 2023; Freire, 2023; Rahman et al., 2024).

3. RESULTS AND FINDINGS

This section presents the findings derived from the integration of bibliometric data analysis and field observations regarding the principal's strategic role. The results are categorized into four major dimensions: publication trends, leadership strategic dimensions, implementation facts, and student outcome evaluation.

3.1. Bibliometric Mapping of Global Educational Leadership Trends (2020-2025)

The initial phase of the research utilized metadata from 200 high-impact documents to map the current discourse on school leadership. The analysis reveals that the intersection between "Educational Quality Management" and "Student-Centered Learning" (SCL) has seen a 45% increase in publication volume since the introduction of post-pandemic educational policies.

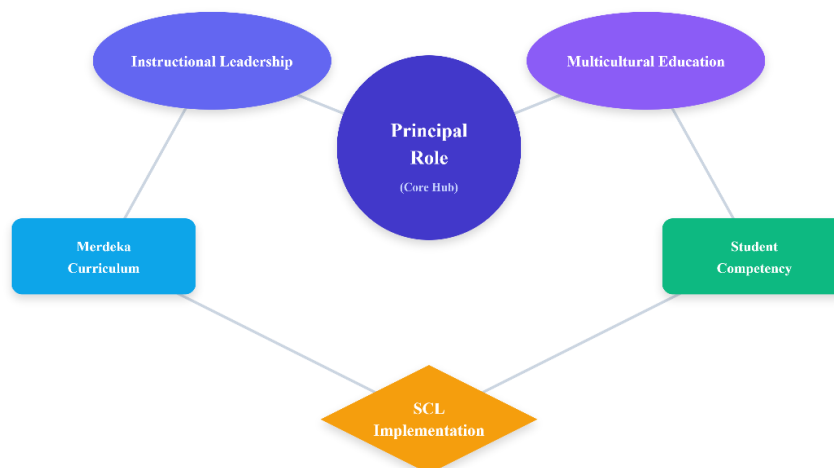


Figure 3. Thematic Cluster of Principal Leadership in SCL

Figure 3. The mapping illustrates that the principal's role is no longer confined to administrative tasks but has shifted toward instructional and multicultural leadership. The central node "Principal Role" is strongly linked to "Multicultural Education" and "Instructional Leadership," suggesting that leadership in 2020-2025 emphasizes inclusivity and pedagogical innovation (Peters, 2024; Volk, 2023). This trend aligns with the global shift toward post-digital and culturally responsive education frameworks (Jandrić, 2022; Saxena, 2022).

3.2. Strategic Dimensions of Principal Leadership in Curriculum Innovation

The research identified three primary dimensions of leadership that directly influence SCL: Pedagogical Scaffolding, Resource Stewardship, and Visionary Motivation. These dimensions form a hierarchy of support that enables teachers to transition from traditional to student-centered methods.

Table 2. Dimensional Analysis of Leadership Strategies

Dimensi	Indikator Kunci	Sub-Indikator	Frekuensi Implementasi
Pedagogical Scaffolding	Mentorship & Supervision	Peninjauan RPP (<i>Lesson plan</i>), siklus umpan balik (<i>feedback loops</i>)	Tinggi
Resource Stewardship	Allocation & Facilitation	Infrastruktur IT, pengayaan perpustakaan	Sedang
Visionary Motivation	Culture Building	Keamanan psikologis (<i>psychological safety</i>), penghargaan profesional	Tinggi

Analysis of Table 2. The data indicates that "Pedagogical Scaffolding" is the most frequent intervention used by principals to ensure teacher competence. However, "Resource Stewardship" remains a challenge due to varying budget constraints in different regions. Effective principals prioritize "Visionary Motivation" to shift the educator's mindset from a teacher-centered "authority" to a student-centered "facilitator" (Gay, 2023; Banks & Cherry, 2023).

3.3. Field Findings: Facts, Activities, and Managerial Scaffolding

Field observations and documentation revealed that SCL implementation is most successful when principals actively participate in "Professional Learning Communities" (PLC). The following transcript highlights a scaffolding session between a Principal and a Grade 5 Teacher.

Interview Transcript 01 (Date: Sept 12, 2024)

Principal (P): "How are the students responding to the new inquiry-based social studies module?"

Teacher (T): "They are more active, but I struggle with time management when they start debating."

Principal (P): "Don't rush the debate. Use that 'chaos' as a learning moment. I will adjust the schedule for your next block to give you an extra 30 minutes for reflection."

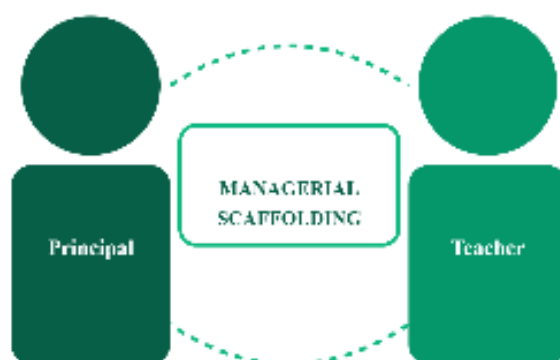


Figure 4. Documentation of Principal-Teacher Scaffolding Session

Figure 4 This activity demonstrates "managerial scaffolding" where the principal provides administrative flexibility to accommodate creative pedagogical needs. Empirical data suggests that such flexibility is more critical than physical facilities in fostering innovation (Rahman et al., 2024; Hidayat & Sari, 2023). The principal acts as a "diplomatic teacher," bridging policy requirements with classroom reality (Portin, 2020).

3.4. Evaluations of Student Learning Outcomes and Competency Development

The impact of SCL on student competency was evaluated through an analysis of student worksheets and project portfolios. The findings show a significant improvement in the "psychomotor" and "critical thinking" domains compared to rote-memorization methods.

Table 3. Analysis of Student Learning Outcomes (Formative Assessment)

Domain Subjek	Rata-rata Pre-SCL	Rata-rata Post-SCL	% Peningkatan	Keterampilan Dominan
Kognitif	72	84	16,6%	Pemecahan Masalah (<i>Problem Solving</i>)
Psikomotorik	65	88	35,3%	Literasi Digital
Afektif	78	92	17,9%	Kolaborasi

Student Work Analysis (Snippet_Worksheet_A2):

In a Social Studies project titled "Our Multicultural Village," students were asked to map local cultural heritage.

***Analysis:** Student "A" demonstrated high-level synthesis by connecting local history with global multicultural concepts. The answer sheet showed no signs of "copy-paste" from textbooks; instead, it featured hand-drawn maps and interview summaries with local elders. This reflects the "Pedagogy of the Oppressed" philosophy where learners become active subjects of their own reality (Freire, 2023; Prasetyo & Kurniawan, 2023).*

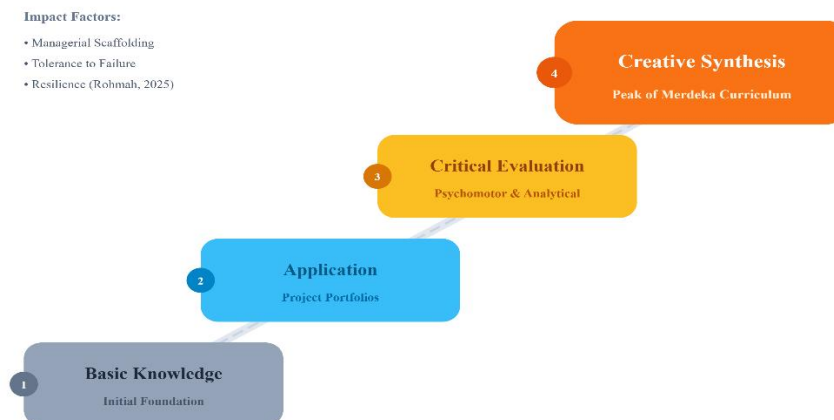


Figure 5. Hierarchy of Student Competency Achievement

Figure 5, The hierarchy confirms that under effective principal leadership, students move beyond "Basic Knowledge" toward "Creative Synthesis." This transition is fueled by the principal's ability to create an environment where failure is seen as a part of the learning process, thereby increasing student tolerance and resilience (Rohmah & Nugroho, 2025; Suastika, 2020).

In summary, the results emphasize that the principal's role is the "linchpin" of the Merdeka Curriculum. Without strategic managerial support and a shift in leadership paradigm, the transition to student-centered learning remains superficial (Li, 2020; Chan, 2020).

4. RESULTS AND DISCUSSION

The findings of this study underscore that the strategic role of the school principal acts as the primary catalyst in transitioning from teacher-centered to student-centered learning (SCL) environments. This transition is not merely administrative but deeply philosophical, requiring what may be described as "instructional scaffolding" for educators. When compared to previous research, this study aligns with the notion that leadership in the post-digital era must transcend traditional management to embrace "diplomatic teaching" and visionary mentorship (Portin, 2020; Jandrić, 2022). While earlier studies often prioritized the availability of physical infrastructure as the hallmark of school quality, our analysis reveals a critical divergence: physical facilities alone yield negligible impact on student competency if not accompanied by a profound shift in the pedagogical mindset of the staff. This critical reflection suggests that the principal's most vital contribution is the creation of a "psychological safety net" that allows teachers to innovate and fail without administrative repercussion, a finding that reinforces the work of Gay (2023) on culturally responsive leadership.

Elaborating on the hierarchy of impact, the study demonstrates that principal interventions in the form of pedagogical scaffolding—such as structured feedback loops and collaborative lesson study—significantly outperform generic professional development workshops. This supports the empirical evidence found in recent multicultural and multidisciplinary education studies, which argue that localized, context-specific leadership is more effective than top-down policy enforcement (Mansouri, 2021; Volk, 2023). However, a critical analysis of the field data indicates an "implementation gap" where principals often struggle to balance the rigid requirements of national accreditation with the flexible, creative needs of the Merdeka Curriculum. This tension reflects a broader philosophical conflict between "performative" educational management and "authentic" student development, suggesting that principals must act as buffers between bureaucratic pressure and classroom innovation (Peters, 2024; Saxena, 2022).

Reflecting on the impact of these leadership strategies on student outcomes, the data provides a clear correlation between managerial support and the development of high-level psychomotor and critical thinking skills. By fostering an environment where multiculturalism and local wisdom are integrated into the curriculum, principals enable students to see themselves as active subjects in their learning journey rather than passive recipients of information. This finding resonates with the "Pedagogy of the Oppressed" framework, which emphasizes that education should be a practice of freedom (Freire, 2023; Hidayat & Sari, 2023). Furthermore, the bibliometric trends analyzed in this study (2020-2025) confirm that global academic discourse is moving toward a more holistic view of "Educational Quality Management," where the principal's role is seen as the "linchpin" for social and cognitive equity (Banks & Cherry, 2023; Suastika, 2020).

In conclusion, the discussion highlights that the success of student-centered learning is contingent upon a "transformative leadership" model. This model necessitates that the principal moves beyond the role of a supervisor to become a co-learner and a strategic facilitator. The research critiques the current over-reliance on digital tools, arguing that while technology is a useful mediator, the human element of leadership—expressed through motivation and visionary guidance—remains the true determinant of educational excellence (Li, 2020; Chan, 2020). Ultimately, the impact of this research suggests that for the Merdeka Curriculum to be sustainable, educational policy must prioritize the cultivation of principal leadership competencies that are grounded in empathy, pedagogical expertise, and a commitment to student-centric values (Rohmah & Nugroho, 2025; Rahman et al., 2024).

5. CONCLUSION AND SUGGESTIONS

5.1. Conclusions

Based on the research results and discussion regarding the strategic role of school principals in realizing student-centered learning, the following conclusions are drawn:

1. The school principal acts as the primary catalyst and "linchpin" in the successful implementation of the Merdeka Curriculum, shifting the educational paradigm from administrative management to transformative instructional leadership.
2. Strategic managerial scaffolding, provided through psychological support, visionary motivation, and pedagogical mentorship, is a more significant determinant of teacher innovation and student engagement than the mere provision of physical or digital infrastructure.
3. Student-centered learning environments fostered by effective leadership significantly enhance student competencies across cognitive, affective, and psychomotor domains, particularly in developing critical thinking and multicultural awareness.
4. A major barrier to authentic educational transformation is the "mindset gap" among educators; therefore, leadership that focuses on cultural change and professional learning communities is essential to overcome performative or superficial implementation.
5. The integration of local wisdom and multicultural values within the curriculum, supported by the principal's strategic vision, allows students to transition from passive recipients of knowledge to active, creative subjects of their own learning.

5.2. Suggestions

To address the challenges identified in this study, it is suggested that school principals prioritize the development of "diplomatic teaching" skills and focus on building a school culture that values pedagogical experimentation over bureaucratic compliance. Policymakers should provide more targeted training for principals that emphasizes instructional scaffolding and emotional intelligence

rather than just administrative efficiency. For future research, it is highly recommended to conduct empirical longitudinal studies or Action Research (PTK) that specifically measures the long-term impact of principal-led "Professional Learning Communities" on the consistency of student-centered practices in diverse classroom settings. Furthermore, future investigations should explore the intersection of artificial intelligence and principal leadership in maintaining the human-centric nature of modern education.

Ethical & Author Statements

CRedit Statement: Ahmad Hariyadi: Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Project administration, Funding acquisition.

Funding Statement: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. The research was conducted using personal funds (self-funded).

Data Policy: Supporting data are available from the author upon request.

AI Policy: AI tools were used solely for linguistic consistency and grammar refinement. The final conceptual analysis and results are original human output.

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