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Adaptive leadership in managing organizational change: implementing indonesia's merdeka curriculum

Abstract

Background:
The implementation of the Merdeka Curriculum represents a significant educational reform in Indonesia that requires substantial organizational transformation at the school level. However, curriculum change often encounters challenges related to teacher readiness, organizational culture, resource limitations, and resistance to change.

Purpose:
This study aims to explore how adaptive leadership contributes to managing organizational change during the implementation of the Merdeka Curriculum in Indonesian schools.

Method:
Using a qualitative case study approach, this research investigates the adaptive leadership practices of school principals in facilitating curriculum transformation. Data were collected through semi-structured interviews, observations, and document analysis involving school leaders and teachers engaged in the curriculum implementation process. The findings indicate that adaptive leadership plays a critical role through several dimensions: creating a shared vision, facilitating collaborative learning, empowering teachers, managing resistance, and developing organizational flexibility.

Findings:
The study contributes to the literature on educational change management by proposing an adaptive leadership framework for curriculum reform contexts. The findings highlight that successful curriculum implementation requires leaders who are capable of responding dynamically to complex challenges, fostering collective commitment, and building sustainable organizational capacity.

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INTRODUCTION

Globally, educational systems are undergoing profound structural transformations driven by rapid technological advancements, evolving societal needs, and dynamic policy frameworks. Within this landscape of ongoing change, school leadership plays a pivotal role in guiding institutions through complex operational and pedagogical transitions. Modern educational management increasingly emphasizes adaptive leadership—a approach that prioritizes organizational learning, flexibility, and collective problem-solving over rigid hierarchical control. Scholars across various domains, ranging from healthcare systems (Bailey et al., 2012) and environmental management (Burke, 2007; Haubold, 2012) to higher education and school governance (Campbell-Evans et al., 2014; Edmonstone, 2016; Wolfe, 2015; Woolard, 2018), highlight that adaptive frameworks are essential for navigating complex challenges. This paradigm is particularly relevant in crisis management and social justice initiatives within academic institutions (Brown & Jones, 2025; Sarid, 2024), establishing adaptive leadership as a fundamental mechanism for systemic educational reform.

Understanding the mechanisms of adaptive leadership during large-scale educational reform yields significant academic, practical, and socio-economic benefits. At the institutional level, effective leadership behaviors directly optimize teacher performance, boost self-efficacy, and cultivate positive school climates. Furthermore, strong change leadership enables schools to seamlessly integrate modern instructional models, such as mobile learning (Al-Emran et al., 2020), interactive digital platforms (Fatayan et al., 2023, 2024), and contextual project-based learning (Arfida et al., 2024; Condliffe et al., 2017). On a macro level, aligning school management with robust educational standards supports national goals, including the Sustainable Development Goals (SDGs) and total quality management in public and vocational education (Pamancar et al., 2025). Ultimately, research into adaptive practices helps institutions address urgent educational challenges—such as remote learning adjustments during

crises (El Khuluqo et al., 2021) and international student integration (Tas, 2013)—thereby safeguarding overall educational quality.

Despite extensive literature on educational change, a significant research gap remains regarding how adaptive leadership specifically functions during the nationwide implementation of Indonesia's *Merdeka Curriculum*. While existing studies have extensively explored the challenges of implementing the *Merdeka Curriculum* in elementary and secondary schools (Fauzi, 2023; Sucipto et al., 2024), their focus remains largely confined to teacher readiness, instructional hurdles, or general policy compliance. Although research acknowledges the role of principals as change agents and visionary leaders (Habibah, 2025; Syakur, 2024), as well as the influence of social media and instructional supervision (Elfira et al., 2024; Prasojo & Yuliana, 2021), there is a noticeable lack of empirical investigation into how school leaders systematically leverage adaptive leadership processes—specifically diagnosing adaptive challenges, mobilizing stakeholders, and fostering learning capacity. Consequently, the precise organizational processes through which adaptive school leaders navigate resistance and facilitate pedagogical transformation in Indonesian schools remain insufficiently articulated.

This study addresses this empirical void by examining the operationalization of adaptive leadership within the specific socio-cultural and administrative context of Indonesia's current curriculum reform. Unlike previous quantitative evaluations that isolate leadership styles, work environment, and teacher motivation (Hartinah et al., 2020; Widayati et al., 2025), or conceptual analyses on the relevance of the *Merdeka Curriculum* to Society 5.0 (Indarta et al., 2022), this research employs an in-depth qualitative case study approach rooted in qualitative methodology (Moleong, 2017). By integrating Heifetz's adaptive leadership framework directly with qualitative data sources—comprising semi-structured interviews, classroom observations, and document analysis—this study offers a novel theoretical synthesis connecting

leadership adaptation to school-level curriculum management. It moves beyond traditional instructional leadership perspectives to provide empirical evidence on how adaptive behaviors systematically convert policy mandates into sustainable institutional culture.

To resolve these unexamined dynamics, this study explicitly investigates how adaptive leadership manages organizational change during the implementation of the *Merdeka Curriculum*. Specifically, this research aims to achieve three primary objectives:

- Analyze how school principals demonstrate concrete adaptive leadership practices in navigating curriculum shifts.
- Identify the specific change management strategies deployed by educational leaders to mitigate teacher resistance and structural barriers.
- Evaluate how adaptive leadership contributes to building sustainable organizational learning capacities and improving student literacy and numeracy outcomes (Rosnelli & Ristiana, 2023).

This investigation is particularly urgent given the ongoing operational challenges and paradigm shifts associated with the national rollout of the *Merdeka Curriculum* in Indonesia. School communities currently face unprecedented pressures to move away from standardized content delivery toward flexible, student-centered learning, differentiated instruction, and character building. Without effective, adaptive leadership at the institutional level, schools risk falling into mere surface-level policy compliance rather than achieving deep pedagogical reform. Addressing these immediate field reality challenges is essential for preventing learning gaps, mitigating teacher burnout, and ensuring that schools successfully transition into flexible, future-ready organizations.

Ultimately, this research provides significant theoretical and practical contributions to the field of educational management. Theoretically, it expands adaptive leadership literature by offering an empirically grounded framework tailored to large-scale curriculum reforms in developing educational systems. Practically, the study offers actionable insights, strategic guidelines, and policy recommendations for school principals, district supervisors, and educational policymakers seeking to optimize change management strategies. By demonstrating how adaptive behaviors cultivate collaborative cultures and empower teachers, this study serves as a valuable blueprint for achieving sustainable, long-term educational transformation.

METHODS

This study employed a qualitative research approach utilizing a case study design to explore the role of adaptive leadership in managing organizational change during the implementation of the Merdeka Curriculum (Moleong, 2017). A qualitative approach was selected because this study aimed to obtain an in-depth, nuanced understanding of leadership practices, organizational transformation processes, and the lived experiences of school members involved in curriculum implementation. Unlike quantitative approaches that focus on measuring statistical relationships between variables, qualitative inquiry enables researchers to investigate complex social phenomena by examining meanings, perspectives, and contextual experiences within real-world settings. The case study design was particularly appropriate because the implementation of the Merdeka Curriculum represents a complex educational phenomenon deeply influenced by organizational culture, leadership dynamics, teacher readiness, and institutional conditions (Syakur, 2024). Through this design, the research systematically investigated how school leaders interpret curriculum reform, respond to adaptive challenges, and execute strategic leadership to facilitate sustainable organizational change (Habibah, 2025; Wolfe, 2015).

The conceptual architecture of this research was guided by the Adaptive Leadership framework as synthesized in educational reform contexts (Edmonstone,

2016; Sarid, 2024; Wolfe, 2015; Woolard, 2018). This framework emphasizes four core operational pillars: diagnosing systemic challenges, mobilizing key stakeholders, fostering collaborative problem-solving, and developing continuous organizational learning capacity (Bailey et al., 2012; Brown & Jones, 2025; Campbell-Evans et al., 2014; Haubold, 2012). Within this study, the framework served as an analytical lens to evaluate how school principals differentiate technical problems from adaptive challenges during curriculum transformation (Wolfe, 2015). It facilitated a systematic analysis of how leaders navigate uncertainty, address teacher resistance, and cultivate collective responsibility across all levels of school governance (Burke, 2007; Sarid, 2024).

Data Collection Procedures

To ensure data richness and methodological rigor, primary data were gathered through a multi-source qualitative data collection strategy consisting of semi-structured interviews, direct field observations, and document analysis (Moleong, 2017). Semi-structured interviews were conducted with school principals, curriculum coordinators, and teachers actively engaged in implementing the Merdeka Curriculum (Fauzi, 2023; Sucipto et al., 2024). These interviews explored leadership strategies, communication patterns, decision-making processes, and teacher support mechanisms (Elfira et al., 2024; Prasojo & Yuliana, 2021). Direct observations were carried out during staff coordination meetings, teacher professional development sessions, and classroom instructional activities to observe leadership practices and collaborative behaviors in real time. Furthermore, extensive document analysis was conducted on institutional artifacts, including school development plans, lesson modules, assessment guidelines, and official meeting minutes, providing contextual triangulation for the empirical findings (Rosnelli & Ristiana, 2023).

Data Analysis and Trustworthiness

The qualitative data were analyzed systematically following the interactive data analysis model developed by Miles, Huberman, and Saldaña (2014), adapted through

qualitative methodologies (Moleong, 2017). This iterative process comprised three concurrent streams: data condensation (selecting, focusing, coding, and categorizing raw interview transcripts and observational notes), data display (organizing condensed data into thematic matrices and structured narrative descriptions), and conclusion drawing/verification. Coding schemes were mapped directly onto the dimensions of adaptive leadership and organizational change management (Brown & Jones, 2025; Wolfe, 2015). To establish academic rigor, trustworthiness, and credibility, data triangulation was implemented across multiple sources and collection methods. Member checking was conducted with key participants to verify transcript accuracy and interpretative fidelity, ensuring that the study's conclusions reliably reflect the complex dynamics of curriculum reform.

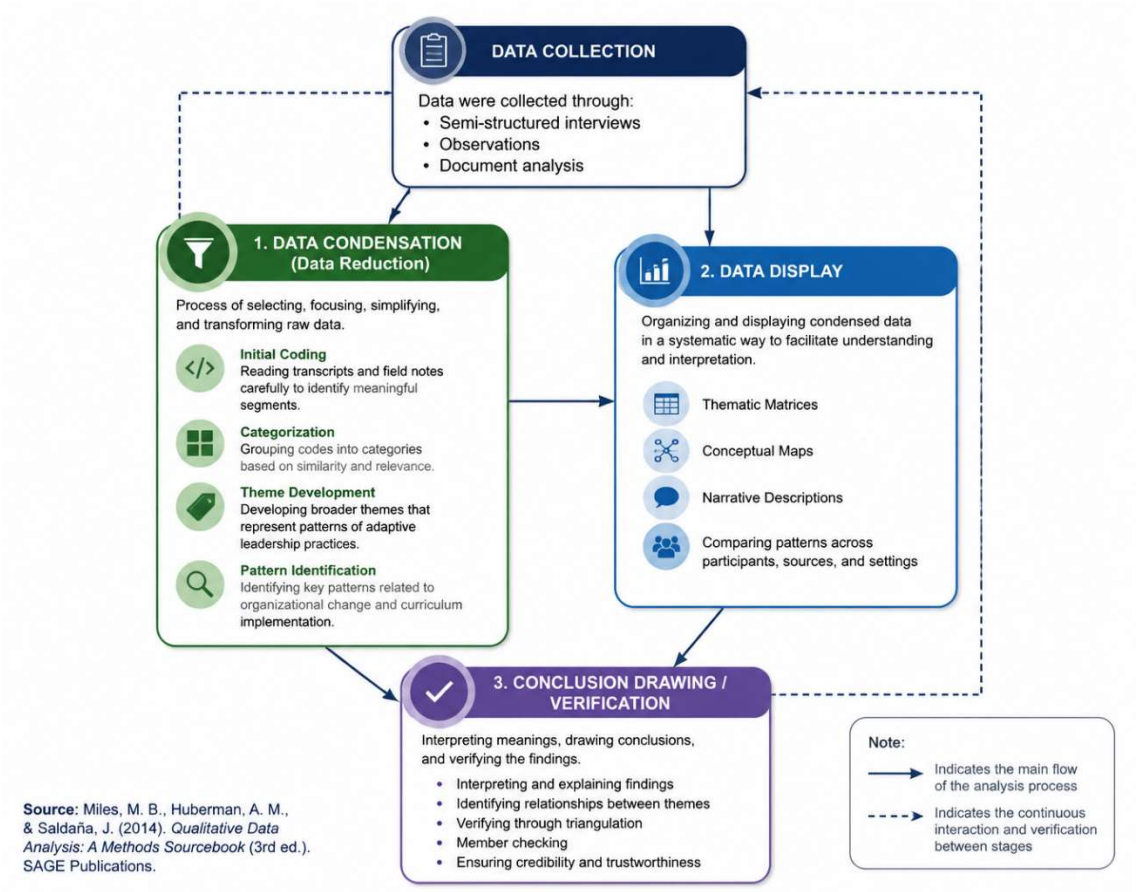

Figure 1. Data Analysis Process Based on Miles, Huberman, and Saldaña (2014)

RESULT AND DISCUSSION

Adaptive Leadership as a Catalyst for Organizational Change in Merdeka Curriculum Implementation

The findings of this study reveal that adaptive leadership plays a critical role in facilitating organizational change during the implementation of the Merdeka Curriculum. Based on interviews, observations, and document analysis, school leaders demonstrated adaptive leadership practices through their ability to interpret curriculum reform as a continuous learning process rather than merely an administrative requirement. The implementation of the Merdeka Curriculum was perceived as a complex transformation that required changes in teachers' perspectives, instructional practices, and organizational culture.

The data analysis process identified five major themes related to adaptive leadership practices: (1) developing a shared vision for curriculum transformation, (2) strengthening collaborative decision-making, (3) empowering teachers as change agents, (4) managing resistance through communication and support, and (5) developing a sustainable organizational learning culture. These themes illustrate how adaptive leadership contributes to building organizational capacity in responding to educational reform (see Table 1).

Table 1. Summary of Research Findings Based on Adaptive Leadership

Adaptive Leadership Dimension	Evidence from Data	Organizational Change Impact	Merdeka Curriculum Implementation Outcome
Vision Development	Leaders communicate curriculum goals and establish shared	Increases organizational readiness and commitment	Teachers understand the purpose of

	understanding among teachers		curriculum transformation
Collaborative Decision Making	Teachers participate in curriculum planning and problem-solving activities	Strengthens ownership and collective responsibility	Curriculum implementation becomes a shared process
Teacher Empowerment	Leaders provide training, mentoring, and professional learning opportunities	Improves teacher competence and confidence	Teachers are able to implement differentiated and innovative learning
Resistance Management	Leaders address concerns through communication, support, and dialogue	Reduces uncertainty and negative perceptions toward change	Teachers gradually adapt to new curriculum demands
Organizational Learning Culture	Schools conduct reflection, evaluation, and knowledge sharing activities	Builds sustainable change capacity	Continuous improvement becomes part of school culture

The first finding indicates that school leaders acted as transformational agents by developing a shared vision regarding the purpose and direction of the Merdeka Curriculum. Instead of presenting curriculum reform as an external policy obligation, adaptive leaders framed the curriculum as an opportunity to improve educational quality and respond to students' diverse learning needs. This approach helped teachers understand that curriculum implementation was not simply about changing lesson plans or assessment formats but about transforming learning experiences. This finding aligns directly with the research of Syakur (2024), who highlighted school leadership as a key driver of change during Merdeka Curriculum reform, and Habibah (2025), who

identified visionary leadership as critical for guiding educational transitions. Furthermore, these findings draw strong parallels with international studies, such as Brown and Jones (2025) in Australia and Wolfe (2015) in higher education settings, which demonstrated that successfully navigating institutional reform requires framing official policy mandates as collaborative learning opportunities rather than mere top-down compliance.

This finding supports the concept of adaptive leadership which emphasizes that leaders must mobilize people toward meaningful adaptation rather than simply provide technical solutions. In the context of curriculum reform, technical approaches such as distributing curriculum guidelines or conducting short training sessions are insufficient because successful implementation requires changes in beliefs, professional identity, and teaching practices. This conceptualization is consistent with domestic empirical evidence from Fauzi (2023) and Sucipto et al. (2024), who noted that the primary obstacles to Merdeka Curriculum adoption stem from adaptive challenges such as teacher readiness and institutional mindsets. Internationally, these dynamics reflect the findings of Campbell-Evans et al. (2014) and Sarid (2024), who emphasized that adaptive leadership moves beyond rigid administrative mechanisms by actively supporting stakeholders through complex, unstructured organizational change.

The ability of school leaders to create a shared vision was therefore an important foundation for organizational readiness. When teachers understood the underlying values of the Merdeka Curriculum, they demonstrated greater willingness to explore new teaching approaches and participate in curriculum development activities. This finding indicates that adaptive leadership functions as a mechanism for reducing uncertainty and creating collective commitment during periods of educational change. This mechanism aligns with quantitative research by Elfira et al. (2024), Hartinah et al. (2020), and Kurniasari et al. (2025), which demonstrated that effective principal

leadership significantly improves teacher performance, self-efficacy, and workplace climate.

The primary contribution of this finding lies in its direct implications for advancing mathematics education and classroom instruction. By cultivating an adaptive, vision-driven school culture, leaders enable teachers to shift away from rigid, traditional instruction toward modern pedagogical frameworks, such as 21st-century learning models (Indarta et al., 2022). In practical mathematics instruction, this adaptive environment encourages educators to implement real-world, project-based learning (Arfida et al., 2024; Condliffe et al., 2017) and utilize technology-based interactive tools such as Nearpod (Fatayan et al., 2023, 2024; Ghani et al., 2022). These instructional strategies directly enhance students' mathematical reasoning, problem-solving abilities, literacy, and numerical competence (Rosnelli & Ristiana, 2023). Ultimately, establishing such leadership practices supports long-term engagement with digital learning technologies (Al-Emran et al., 2020; El Khuluqo et al., 2021) and aligns institutional performance with National Education Standards and global development goals (Pamancar et al., 2025; Widayati et al., 2025).

Despite these significant insights, this study has clear methodological limitations. Because the research relied on a qualitative case study design (Moleong, 2017), the findings cannot be statistically generalized to all schools across Indonesia. While the qualitative approach offers deep contextual understanding of leadership behaviors, future studies should employ mixed-methods or large-scale quantitative designs to validate these findings across broader geographic contexts.

Collaborative Decision-Making and Stakeholder Engagement

The second major finding highlights the importance of collaborative decision-making in managing curriculum transformation. The implementation of the Merdeka Curriculum requires collective efforts from school leaders, teachers, and other

stakeholders because educational change cannot be successfully achieved through individual actions.

The findings indicate that adaptive school leaders encouraged teacher participation in curriculum planning, evaluation meetings, and professional discussions. Teachers were provided with opportunities to express their concerns, share experiences, and contribute ideas regarding curriculum implementation strategies. This participatory approach strengthened teachers' sense of ownership and reduced perceptions that curriculum reform was merely an external demand imposed by policymakers (see Table 2).

Table 2. Data Source Triangulation

Research Question	Data Source	Evidence Identified	Analytical Focus
How do school leaders demonstrate adaptive leadership practices?	Interviews with principals and teachers	Leadership strategies, communication patterns, decision-making processes	Adaptive leadership practices
What strategies are used to overcome curriculum implementation challenges?	Interviews and observations	Teacher support, collaboration, professional development activities	Organizational change management
How does adaptive leadership contribute to sustainable transformation?	Documents and observations	School programs, evaluation activities, learning communities	Organizational learning capacity

This finding aligns with organizational change theory, which emphasizes that successful transformation requires stakeholder involvement and effective communication. Change initiatives often fail when organizational members perceive

themselves as passive recipients of change. In contrast, participation creates psychological ownership and increases commitment toward organizational goals.

17 Collaborative decision-making also supported the development of professional learning communities within schools. Teachers were encouraged to exchange instructional experiences, discuss classroom challenges, and collectively develop solutions. Through these interactions, curriculum implementation became a shared responsibility rather than an individual teacher obligation.

From an adaptive leadership perspective, collaboration represents a process of distributing leadership capacity throughout the organization. Adaptive leaders do not position themselves as the only source of knowledge but create environments where organizational members contribute their expertise. This approach is particularly relevant in educational contexts because teachers possess direct knowledge about classroom realities and student needs. Therefore, the findings suggest that adaptive leadership contributes to curriculum transformation by shifting leadership practices from hierarchical control toward collaborative engagement.

Teacher Empowerment as a Strategy for Sustainable Curriculum Transformation

Another important finding concerns the role of teacher empowerment in supporting successful curriculum implementation. The Merdeka Curriculum requires teachers to demonstrate greater autonomy in designing learning activities, implementing differentiated instruction, and developing meaningful assessment strategies. Consequently, teachers need adequate support to develop the competencies required by the new curriculum.

The findings show that adaptive leaders focused on strengthening teacher capacity through mentoring, professional development activities, peer discussions, and continuous feedback. Rather than evaluating teachers only based on compliance with

curriculum requirements, leaders created opportunities for teachers to experiment with innovative teaching practices.

Teacher empowerment emerged as an essential component because curriculum reform requires changes in professional identity. Teachers who previously viewed themselves primarily as knowledge transmitters were encouraged to adopt the role of learning facilitators. This transition requires not only technical skills but also changes in mindset and pedagogical beliefs. The findings are consistent with previous research on educational leadership, which emphasizes that effective leaders build organizational capacity by investing in human resources. Sustainable educational improvement occurs when teachers become active participants in change rather than passive implementers of policy.

Adaptive leadership supports this process by recognizing that organizational change occurs through individual and collective learning. Leaders facilitate adaptation by providing psychological support, encouraging innovation, and creating safe environments where teachers can learn from mistakes. Furthermore, teacher empowerment contributes to long-term sustainability because curriculum transformation does not depend solely on individual leaders. When teachers develop strong professional capacity and collaborative habits, schools become more resilient in responding to future educational changes.

Managing Resistance and Challenges during Curriculum Implementation

1 The implementation of the Merdeka Curriculum also revealed several challenges, particularly related to resistance, uncertainty, and adjustment difficulties among teachers. The findings indicate that resistance was not necessarily caused by unwillingness to change but often resulted from limited understanding, insufficient experience, and concerns regarding increased responsibilities. This study aligns with the research of Fauzi (2023) and Sucipto et al. (2024), who observed that initial implementation hurdles of the Merdeka Curriculum in Indonesian primary schools

stem primarily from pedagogical uncertainty and limited practical experience rather than outright unwillingness.

Internationally, this finding aligns with Wolfe (2015) and Woolard (2018), who demonstrated that resistance during curriculum reform is a typical manifestation of technical and adaptive gaps rather than mere behavioral non-compliance. In the domain of mathematics education, this transition challenge is particularly pronounced, as teachers must pivot from traditional procedural instruction to project-based and numerical inquiry frameworks (Rosnelli & Ristiana, 2023). This contributes significantly to mathematics education by demonstrating that enhancing teachers' pedagogical confidence in numerical instruction requires structured scaffolding rather than top-down mandates, thereby laying a foundation for more effective classroom mathematics practice. Adaptive leaders addressed these challenges through continuous communication, dialogue, and supportive approaches. Instead of forcing immediate compliance, leaders provided opportunities for teachers to gradually understand and adapt to curriculum expectations.

This finding aligns with the research of Syakur (2024) and Habibah (2025), who noted that school principals acting as change agents and visionary leaders play a pivotal role in facilitating smooth curriculum adaptation in Indonesian schools. Furthermore, this aligns with international findings by Brown and Jones (2025) and Campbell-Evans et al. (2014) in Australia, which highlighted that adaptive leadership strategies during educational crises and transformations rely heavily on collaborative dialogue over authoritarian control. The contribution of this approach to mathematics education is critical: by providing incremental learning opportunities, mathematics teachers are given the cognitive space to adopt innovative, problem-based instructional designs—such as project-based learning (Arfida et al., 2024; Condliffe et al., 2017)—which directly enhances students' mathematical reasoning and numerical problem-solving skills in the classroom.

This finding reflects the adaptive leadership principle that complex challenges cannot be solved through authority alone. Leaders must create conditions where individuals are able to confront difficulties, learn new behaviors, and develop adaptive capacity. This study aligns with the research of Edmonstone (2016) and Bailey et al. (2012), who emphasized that complex operational challenges require leaders to embrace uncertainty and foster collective learning rather than relying on positional power. In the context of school management, this is consistent with the results of Hartinah et al. (2020), Elfira et al. (2024), and Kurniasari et al. (2025), which demonstrated that supportive principal leadership directly drives teacher self-efficacy and performance.

The contribution to mathematics education lies in shifting the focus of reform from rigid curriculum compliance to building adaptive capacity among mathematics educators. When leaders foster environments where teachers can safely experiment with modern pedagogical tools—such as technology-based interactive media (Fatayan et al., 2023, 2024; Ghani et al., 2022) and mobile learning integration (Al-Emran et al., 2020)—mathematics classrooms become dynamic spaces that better align with 21st-century learning demands (Indarta et al., 2022). Communication played a central role in reducing resistance. Leaders who clearly explained curriculum objectives and provided practical examples helped teachers perceive change as meaningful rather than threatening. Furthermore, emotional support from leaders contributed to increased confidence among teachers during the transition process.

This aligns with the research of Prasojo and Yuliana (2021) and Widayati et al. (2025), who highlighted the role of active communication and positive work culture in strengthening instructional outcomes in Indonesian schools, as well as Burke (2007) and Haubold (2012), who found that open communication and stakeholder engagement are essential for managing wicked, multi-faceted systemic changes internationally. The practical contribution to mathematics instruction is that

transparent communication of curriculum goals enables mathematics teachers to contextualize abstract mathematical concepts into meaningful, real-world problems, reducing student mathematics anxiety and improving classroom engagement.

The findings demonstrate that resistance management is not about eliminating disagreement but about transforming uncertainty into opportunities for learning. Adaptive leaders recognize different levels of readiness among organizational members and adjust their strategies accordingly. This finding aligns with the research of Sarid (2024), who argued that adaptive leadership in educational settings must cross traditional boundaries to address individual readiness and promote equitable support structures, as well as El Khuluqo et al. (2021) and Pamancar et al. (2025), who underscored the importance of adjusting management strategies to support educators through transitional environments. This contributes to mathematics education as a field of study by providing a framework for differentiated professional development, ensuring that mathematics teachers with varying levels of digital and pedagogical readiness receive tailored support to improve classroom numerical instruction. This perspective extends traditional change management approaches by emphasizing the human dimension of organizational transformation. Curriculum reform involves not only structural adjustments but also emotional and cognitive adaptation among individuals.

This aligns with international research by Tas (2013), who emphasized human-centric strategies in organizational adaptation. The primary contribution of this research to mathematics education is establishing that sustainable improvement in student numerical literacy (Rosnelli & Ristiana, 2023) depends directly on nurturing the emotional and cognitive well-being of mathematics educators during curriculum shifts. Nevertheless, a research limitation of this study is its reliance on qualitative interpretations without long-term quantitative metrics measuring student mathematics achievement; future studies should incorporate longitudinal mixed methods

approaches (Moleong, 2017) to evaluate how adaptive leadership interventions directly correlate with standardized mathematical learning outcomes over time.

Developing Organizational Learning Culture for Sustainable Change

The final finding demonstrates that adaptive leadership contributes to the development of organizational learning cultures. The implementation of the Merdeka Curriculum requires continuous reflection, evaluation, and improvement because educational change is an ongoing process rather than a one-time activity. The findings indicate that adaptive leaders encouraged reflective practices through regular evaluation meetings, teacher discussions, and collaborative problem-solving activities. These practices enabled schools to identify challenges, evaluate strategies, and develop improvements continuously.

Organizational learning became an important mechanism for maintaining curriculum sustainability. Schools that developed learning cultures were better able to adapt because members continuously generated new knowledge and shared experiences. This finding supports the argument that educational organizations must become learning organizations capable of responding to uncertainty. In rapidly changing educational environments, schools cannot rely only on fixed procedures or previous experiences. Instead, they must develop the capacity to learn and adapt continuously.

Adaptive leadership contributes to this process by encouraging experimentation and reflection. Leaders create environments where teachers feel supported in trying new approaches and evaluating their effectiveness. This culture promotes innovation and strengthens organizational resilience.

Integrated Discussion: Adaptive Leadership Framework for Merdeka Curriculum Implementation

Based on the findings, this study proposes an adaptive leadership framework explaining how school leaders manage organizational change during the implementation of the Merdeka Curriculum. This study aligns with the research of Syakur (2024), Habibah (2025), and Wolfe (2015), which established that curriculum implementation requires structural leadership adaptation rather than simple administrative management. Internationally, these findings mirror those of Brown and Jones (2025) in Australia and Edmonstone (2016) in the UK, demonstrating that adaptive leadership is essential for navigating educational disruptions across global contexts.

The framework demonstrates that adaptive leadership practices influence organizational change capacity through several interconnected processes. First, leaders establish a shared vision that provides direction and meaning for curriculum transformation. This aligns with findings by Habibah (2025), who noted that visionary leadership drives independent learning initiatives. Second, collaborative decision-making strengthens stakeholder involvement and collective ownership. This process reflects the work of Burke (2007) and Haubold (2012), who highlighted how stakeholder engagement addresses complex organizational challenges. Third, teacher empowerment develops professional capacity necessary for implementing curriculum innovation. This corresponds with findings by Elfira et al. (2024) and Kurniasari et al. (2025), showing that instructional leadership builds teacher self-efficacy and performance. Fourth, resistance management supports emotional and cognitive adaptation among organizational members. This aligns with insights from Fauzi (2023) and Sucipto et al. (2024) regarding the human challenges of Merdeka Curriculum adoption. Finally, organizational learning culture ensures that transformation becomes sustainable. This matches the findings of Campbell-Evans et al. (2014) and Woolard (2018), who observed that continuous learning processes reinforce long-term adaptive capacity.

The findings contribute to the existing literature by emphasizing that curriculum implementation should be understood as an organizational transformation process rather than a technical policy implementation process. While previous studies have highlighted the importance of teacher readiness and curriculum understanding, this study demonstrates that leadership adaptation is a fundamental mechanism enabling schools to navigate complex educational change. This contribution directly extends the work of Hartinah et al. (2020) and Widayati et al. (2025), confirming that leadership acts as a core antecedent to work culture and school quality.

The study also expands the application of adaptive leadership theory within educational reform contexts. Adaptive leadership is particularly relevant for curriculum transformation because such reforms involve uncertainty, competing expectations, and the need for continuous learning. School leaders must therefore move beyond administrative roles and become facilitators of organizational adaptation. In terms of direct contributions to mathematics education and practical classroom instruction, this adaptive framework enables teachers to transition from traditional pedagogy toward 21st-century learning models (Indarta et al., 2022). By fostering an adaptive school environment, mathematics teachers can implement project-based learning (Arfida et al., 2024; Condliffe et al., 2017) and integrate technology-based interactive media like Nearpod (Fatayan et al., 2023, 2024; Ghani et al., 2022), thereby improving student literacy, numerical competence, and problem-solving skills (Rosnelli & Ristiana, 2023). Furthermore, establishing digital leadership practices encourages continuous technology adoption (Al-Emran et al., 2020) and aligns with National Education Standards for long-term sustainability (Pamancar et al., 2025). However, a limitation of this study stems from its qualitative case study design (Moleong, 2017), which restricts the statistical generalizability of the proposed framework to all educational settings, calling for future quantitative research across broader contexts.

Conclusion

This study concludes that adaptive leadership plays a crucial and fundamental role in managing organizational change during the implementation of the Merdeka Curriculum in schools. This primary role is achieved not through hierarchical authority alone, but through five core dimensions of adaptive leadership: developing a shared vision, fostering collaborative decision-making, empowering teachers, managing resistance through empathetic communication, and cultivating a sustainable organizational learning culture. Overall, these findings demonstrate that successful curriculum reform requires a profound transformation of organizational culture and behavior, rather than mere formal compliance with administrative policies.

This key takeaway is realized through an adaptive leadership mechanism that actively facilitates the emotional and cognitive adaptation of educators. School principals serve as change agents who systematically diagnose adaptive challenges, engage teachers in participatory planning, and provide continuous psychological support alongside professional development. By establishing a safe environment for experimenting with novel pedagogical approaches—such as differentiated and project-based learning—and transforming uncertainty into strategic learning opportunities, school leaders successfully build adaptive capacity and cultivate collective ownership among the teaching staff.

Although this study provides in-depth insights into adaptive leadership practices, it is subject to methodological limitations due to its exclusive reliance on qualitative interpretation without quantitatively measuring long-term student learning outcomes. Consequently, future research should utilize mixed-methods or longitudinal quantitative designs to evaluate the direct correlation between adaptive leadership practices and improvements in students' numerical competence, literacy skills, and character development. Furthermore, expanding the geographic scope and educational levels across diverse socio-geographic contexts in Indonesia will serve to test the generalizability and robustness of the proposed adaptive leadership model.

In the long term, this research contributes to the advancement of resilient, flexible, and sustainable educational leadership systems. Beyond ensuring the immediate success of Merdeka Curriculum implementation, embedding an adaptive leadership framework aims to transform schools into dynamic learning organizations capable of independently and innovatively navigating complex educational challenges, global shifts, and future systemic developments.