



Building a Research Culture in Schools: An Analysis of Principals' Innovative Leadership and Adaptive Strategies

M. Fadil Hafiz*

Universitas Islam Internasional Darullughah Wadda'wah, Pasuruan, Indonesia

mfadilhafiz@gmail.com

*Correspondence

Article Information:

Received: 9 March 2026

Revised: 29 April 2026

Accepted: 14 May 2026

Published: 17 May 2026

Keywords:

Innovative Leadership,
Professional Learning
Communities, Research
Culture, School Principal,
Educational Quality.

Abstract

In the 21st century, the complex demands of global education require schools to transform into dynamic learning organizations, making the establishment of a research and innovation-based ecosystem an institutional necessity. This study aims to analyze the principal's role in cultivating this ecosystem, identify effective innovative leadership strategies, and explore adaptive solutions to implementation challenges. Utilizing a qualitative library research design, this study conducted a descriptive content analysis of reputable academic literature published in recent years. The findings reveal that successful transformation requires a paradigm shift from conventional administrative management to visionary, innovative leadership. Key strategies include institutionalizing teacher action research through Professional Learning Communities (PLCs), integrating digitalization for transparent quality management, and employing adaptive, transformational approaches to overcome structural constraints. The study highlights that despite significant barriers such as heavy workloads and resource limitations, particularly in peripheral areas, principals can drive sustainable educational quality by leveraging social capital, intrinsic motivation, and collaborative governance.

How to Cite this Article: Hafiz, M. Fadil. "Building a Research Culture in Schools: An Analysis of Principals' Innovative Leadership and Adaptive Strategies." *Organon: Journal of Islamic Education Management* 1, no. 1 (2026): 1–11.

INTRODUCTION

Education in the current global era faces increasingly complex challenges, primarily due to technological advancements, globalization, and the demands of 21st-century competencies. Education is no longer solely oriented toward content mastery but also toward critical thinking, creativity, collaboration, and information technology literacy, which have become key competencies for school graduates.¹ In line with this, the leadership skills of 21st-century school administrators also face new challenges arising from changing social and technological dynamics.²

¹ Wisana Abdulloh et al., "A Second-Order Confirmatory Factor Analysis Model of Primary School Administration Promoting 21st Century Skills," *African Educational Research Journal* 10, no. 1 (2022): 28–37.

² Giraphat Thongsak, "Management Skills of 21st Century School Administrators According to the Saṅgahavathu 4 Principles," *ASEAN Journal of Religious and Cultural Research* 7, no. 3 (2024): 1–3.

In this context, schools are required to respond to increasingly complex 21st-century systems and challenges by transforming into learning organizations.³

This transformation makes the urgency of research and innovation in developing school quality a necessity. Building a research-based educational ecosystem is crucial, considering the lack of educational institutions, particularly at the school level, that seriously facilitate and implement research development within their internal environments.⁴ In fact, the integration of research—such as action research—has tremendous potential to help formulate specific and sustainable solutions to persistent problems in schools.⁵ A research-based school not only encourages the involvement of the academic community in scientific activities but also builds a learning culture that is adaptive to curriculum changes and the needs of the times.

The quality of education and the effectiveness of establishing this research culture are heavily influenced by the strategic leadership capacity of the school principal.⁶ School administrators play a central role and serve as the main pillar in fostering a strong research culture, which ultimately has a direct impact on the success of various educational and teacher development programs.⁷ The principal as a change agent is required to direct educational quality management with an innovative approach to navigate resource constraints while simultaneously promoting continuous improvement.⁸

Various previous literatures have extensively examined principal leadership strategies in efforts to improve quality. The majority of studies focus on the implementation of transformational leadership in general, such as collaborative strategic approaches that increase stakeholder involvement,⁹ or holistic value-based transformative leadership that enhances teacher competence.¹⁰ Several other studies highlight the importance of participatory leadership strategies

³ Erica Gilbertson and Aliko Nicolaides, “Centering Community Building to Facilitate Transformative Change for New Teachers: An Action Research Study,” *Action Research* 21, no. 1 (2023): 81–103, <https://doi.org/10.1177/14767503221147012>.

⁴ Ashif Az Zafi et al., “Manajemen Pembentukan Budaya Riset (Research Culture) Pada Siswa Madrasah Aliyah Negeri 2 Kudus,” *Piwulang: Jurnal Pendidikan Agama Islam* 6, no. 2 (2024): 232–45, <https://doi.org/10.32478/2dgcbn05>.

⁵ Gilbertson and Nicolaides, “Centering Community Building to Facilitate Transformative Change for New Teachers.”

⁶ Efrita Norman et al., “Strategic Leadership of School Principals in Enhancing Educational Quality Through Transformational Management and Collaborative Governance,” *El-Idare: Journal of Islamic Education Management* 11, no. 1 (2025): 81–88, <https://doi.org/10.19109/elidare.v11i1.27335>.

⁷ Bryan S. Cabreros, “21st Century Instructional Leadership and Strategic Management of Technical Vocational Education and Training Programs,” *Journal of Technical Education and Training* 15, no. 2 (2023): 33–49; Janice Colebra and Elena De Luna, “An Exploratory Analysis of Support, Engagement, and Commitment (SEC) of School Administrators to Teacher Research Programs,” *International Journal of Management and Administration* 9, no. 18 (2025): 98–144, <https://doi.org/10.29064/ijma.1761633>.

⁸ Ni Kadek Delin Ariani et al., “Innovative Leadership and Educational Quality Management: A Qualitative Study of Principal Practices in a Indonesian Primary School,” *Journal of Innovation and Research in Primary Education* 5, no. 1 (2026): 662–73, <https://doi.org/10.56916/jirpe.v5i1.2851>.

⁹ Norman et al., “Strategic Leadership of School Principals in Enhancing Educational Quality Through Transformational Management and Collaborative Governance.”

¹⁰ Hawanuran Syifahaya and Istanto, “Transformative and Innovative Leadership: The Key to Successful Teacher Competency Development in Islamic Schools,” *Ta'dib: Jurnal Pendidikan Islam* 30, no. 1 (2025): 138–54, <https://doi.org/10.19109/td.v30i1.28227>.

combined with innovative management to encourage sustainable educator performance.¹¹ Regarding the specific formation of a research culture, literature has begun to discuss the integration of research into the local content curriculum¹² and the development of professional learning communities through action research collaboration among teachers.¹³

Although studies on principal leadership are quite abundant, significant gaps remain. Practically, many schools still struggle because they are trapped in ineffective leadership models that hinder educational innovation.¹⁴ Furthermore, empirical studies indicate that even though school administrators highly value teacher research programs and are able to provide administrative support, the provision of financial, technical, and dissemination resource support is still very weak.¹⁵ The reality on the ground is often hampered by heavy workloads, time constraints,¹⁶ and structural obstacles that affect the successful implementation of comprehensive programs. In addition, conceptually, existing literature has not provided much empirical evidence on how innovative leadership is operationalized holistically for quality management, especially in the context of managing schools located amidst facility constraints or in rural areas.

To bridge these gaps, this study offers novelty by specifically analyzing the innovative leadership model of principals that transforms conventional schools into research-based educational ecosystems. This research does not only look at administrative managerial aspects but examines the integration of operational managerial strategies—including technical support, active engagement, long-term commitment, and the comprehensive development of professional learning communities. Based on the problems and rationale above, this article aims to analyze the role of the principal in building a research and innovation-based school, identify the most effective leadership strategies, and describe the real challenges along with strategic solutions to realize a superior and responsive school in the 21st century.

METHOD

This study employs a qualitative approach with a library research design. This approach was selected as the research aims to explore and deeply understand the concepts, roles, and innovative leadership strategies of school principals in building a research-based school ecosystem. Through theoretical and analytical review of various literatures, this approach allows for a critical

¹¹ Musytari Randa and Muhammad Yusuf, “Strategi Kepemimpinan Dan Manajemen Pendidikan Inovatif Dalam Mendorong Kinerja Guru Sekolah Berkelanjutan Di Indonesia,” *Al-Ubudiyah: Jurnal Pendidikan Dan Studi Islam* 6, no. 2 (2025): 203–11, <https://doi.org/10.55623/au.v6i2.562>.

¹² Zafī et al., “Manajemen Pembentukan Budaya Riset (Research Culture) Pada Siswa Madrasah Aliyah Negeri 2 Kudus.”

¹³ Licui Chen, “Facilitating Teacher Learning in Professional Learning Communities through Action Research: A Qualitative Case Study in China,” *Teaching and Teacher Education* 119 (November 2022): 103875, <https://doi.org/10.1016/j.tate.2022.103875>.

¹⁴ Norman et al., “Strategic Leadership of School Principals in Enhancing Educational Quality Through Transformational Management and Collaborative Governance.”

¹⁵ Colebra and Luna, “An Exploratory Analysis of Support, Engagement, and Commitment (SEC) of School Administrators to Teacher Research Programs.”

¹⁶ Syifahaya and Istanto, “Transformative and Innovative Leadership”; Colebra and Luna, “An Exploratory Analysis of Support, Engagement, and Commitment (SEC) of School Administrators to Teacher Research Programs.”

synthesis of ideas, theories, and prior empirical findings to map best practices and challenges in contemporary educational leadership.

The data for this research consist entirely of secondary qualitative data collected from scholarly literature. Primary data sources in this library research rely on reputable empirical journal articles (both nationally accredited and international) and seminar proceedings published within the last five to ten years. Supporting secondary sources include academic textbooks, educational policy documents, and managerial reports relevant to the focus of the study.

Data collection techniques were conducted through structured documentation studies and literature reviews. The search was performed across several major scientific databases, such as Google Scholar, DOAJ, ERIC, and other academic journal portals. Literature searches utilized combinations of specific keywords, including: “innovative principal leadership”, “school research culture”, “kepemimpinan inovatif”, and “sekolah berbasis riset”. The collected literature was strictly selected based on inclusion criteria: (1) substantive relevance to the topic of school leadership and innovation; (2) study novelty (up-to-date literature); and (3) the methodological credibility of the publication source.

Data analysis techniques utilize the descriptive content analysis method. The analysis process adopts the interactive data analysis model (Miles, Huberman, & Saldaña, 2014), which consists of three main stages. First, data condensation/reduction involves sorting and focusing on the essence of the literature that directly discusses principal strategies and research culture. Second, data display, where findings from various literatures are categorized thematically, such as managerial aspects, challenges, and operational strategies. Third, drawing conclusions involves synthesizing these thematic categories into a cohesive conceptual framework to address the research objectives. All stages were conducted to ensure the sharpness of the arguments and the validity of the article’s conclusions.

RESULTS AND DISCUSSION

Manifestation of Innovative Leadership: From Administrative Manager to Research Ecosystem Driver

The contemporary educational landscape demands a fundamental paradigm shift in school leadership. The traditional view of the school principal as a mere administrative manager, focused primarily on compliance, bureaucratic routines, and operational oversight, is no longer sufficient to navigate the complexities of 21st-century education. Instead, principals must evolve into visionary leaders who act as the primary catalysts for continuous innovation within the school community.¹⁷ This profound shift requires administrators to step beyond their managerial

¹⁷ Fitri Khoriroh et al., “Transformational Leadership Strategies and Innovative Leadership of Madrasah Principals in Improving Teacher Performance,” *Halaqa: Islamic Education Journal* 9, no. 2 (2025): 140–50, <https://doi.org/10.21070/halaqa.v9i2.1812>; Putri Mandasari et al., “INNOVATIVE PRINCIPAL LEADERSHIP MANAGEMENT IN IMPROVING TEACHER PROFESSIONALISM THROUGH LEARNING DAY AND LEARNING COMMUNICATION AT SD ISLAM PLUS AL-HIKMAH KANDIS,” *Pedagogical Research Journal* 3, no. 2 (2025): 129–34.

boundaries and actively design, manage, and implement creative and collaborative strategies that foster a robust, research-oriented school culture.¹⁸

The manifestation of this new leadership paradigm is deeply rooted in the synergy between transformational and innovative leadership frameworks. Transformational school leaders successfully inspire systemic change by modeling transparency, maintaining personal accountability, and stimulating intellectual growth among educators, which are highly critical mechanisms for overcoming institutional and resource constraints.¹⁹ Furthermore, innovative leadership is explicitly characterized by an openness to new ideas, creativity in problem-solving, adaptability to change, and the empowerment of teachers based on a foundation of strong ethical values.²⁰ To effectively manage this organizational transformation, a principal must possess an unwavering vision, a clear mission, and a deep commitment to carrying out sustainable innovation.²¹ By doing so, they position themselves as true learning leaders who manage change strategically to enhance the quality of digital and pedagogical learning environments.²²

Transitioning from a rigid administrative focus to cultivating a dynamic research ecosystem heavily relies on participatory decision-making and collaborative governance. Principals who implement these transformational and innovative strategies create highly dynamic learning environments that foster teacher motivation and drive continuous professional development.²³ By acting as active facilitators and motivators rather than just administrative supervisors, principals encourage educators to engage deeply in pedagogical reflection, experience sharing, and educational innovation.²⁴ Ultimately, successful change management in educational institutions relies on this precise combination of transformational leadership and active stakeholder engagement,²⁵ which effectively turns conventional schools into adaptive ecosystems where research and continuous learning become the norm.

¹⁸ Mandasari et al., "INNOVATIVE PRINCIPAL LEADERSHIP MANAGEMENT IN IMPROVING TEACHER PROFESSIONALISM THROUGH LEARNING DAY AND LEARNING COMMUNICATION AT SD ISLAM PLUS AL-HIKMAH KANDIS."

¹⁹ Boledi Melita Moloto et al., "Transformational Leadership in Action: Principals' Experiences of Turning Around Underperforming Schools in Rural South Africa," *Leadership and Policy in Schools* 0, no. 0 (2026): 1–16, <https://doi.org/10.1080/15700763.2026.2625321>.

²⁰ Khoriroh et al., "Transformational Leadership Strategies and Innovative Leadership of Madrasah Principals in Improving Teacher Performance."

²¹ Nisrina Khoirunnisa et al., "KEPEMIMPINAN INOVATIF KEPALA SEKOLAH DALAM PENDIDIKAN DI MASA PANDEMI COVID-19," *Tazkiya: Jurnal Pendidikan Islam* 11, no. 1 (2022): 71–80, <https://doi.org/10.30829/taz.v11i1.1268>.

²² Hayatun Nikmah et al., "Manajemen Perubahan Di Sekolah: Strategi Kepala Sekolah Dalam Membangun Budaya Digital Untuk Meningkatkan Kualitas Pembelajaran," *Journal Educatione* 2, no. 2 (2025), <https://journal.univgresik.ac.id/index.php/je/article/view/687>.

²³ Ariani et al., "Innovative Leadership and Educational Quality Management"; Norman et al., "Strategic Leadership of School Principals in Enhancing Educational Quality Through Transformational Management and Collaborative Governance."

²⁴ Mandasari et al., "INNOVATIVE PRINCIPAL LEADERSHIP MANAGEMENT IN IMPROVING TEACHER PROFESSIONALISM THROUGH LEARNING DAY AND LEARNING COMMUNICATION AT SD ISLAM PLUS AL-HIKMAH KANDIS."

²⁵ Deli Susanti et al., "MANAJEMEN PERUBAHAN DI MADRASAH: STRATEGI ADAPTIF DALAM MENINGKATKAN MUTU PENDIDIKAN ISLAM DI MADRASAH IBTIDAIYAH (MI) MUHAMMADIYAH

Institutionalization of Research Culture through Professional Learning Communities

Establishing a robust research culture requires moving beyond treating teacher research, such as action research, as a mere administrative formality for career advancement. To effectively institutionalize research practices, innovative principals must embed them within collaborative frameworks like Professional Learning Communities (PLCs) or local teacher forums such as MGMP (*Musyawah Guru Mata Pelajaran* or Subject Teacher Deliberation).²⁶ PLCs function as structured platforms that facilitate continuous capacity building, allowing educators to engage in reflective practices, share pedagogical experiences, and collaboratively analyze classroom problems.²⁷ By integrating action research into these communities, principals can successfully balance top-down educational mandates with the bottom-up professional needs of teachers.²⁸

The successful operationalization of this research ecosystem relies heavily on the Support, Engagement, and Commitment (SEC) of school administrators.²⁹ Empirical evidence suggests that while principals often value teacher research and provide administrative networking support, they frequently fall short in providing the necessary financial, technical, and dissemination resources.³⁰ To overcome this, proactive leaders implement dedicated initiatives, such as establishing a specific “Learning Day” or regular “Learning Community” interactions, which allocate structural time and space for teachers to conduct research, participate in training, and share findings.³¹ Furthermore, the principal’s responsibility extends to empowering these communities through continuous academic and clinical supervision, as well as targeted face-to-face training with other teachers.

Sustaining these productive research communities also requires the strategic distribution of leadership. Principals play a critical role in recognizing and empowering teacher leaders within PLCs. When formally recognized teacher leaders—based on their professional expertise—exercise strong professional-oriented leadership practices, they significantly facilitate the subject-based PLC process and drive continuous professional learning.³² Ultimately, transformational leadership from the principal, combined with the active cultivation of PLCs and collaborative teacher

REJANG LEBONG,” *At-Tadbir: Jurnal Manajemen Pendidikan Islam* 5, no. 2 (2025): 90–101, <https://doi.org/10.51700/attadbir.v5i2.1048>.

²⁶ Sofwan Manaf and Rokimin, “Peran Kepala Sekolah Dalam Meningkatkan Kompetensi Guru Di Pondok Pesantren Darunnajah Jakarta,” *Mudir: Jurnal Manajemen Pendidikan* 5, no. 1 (2023): 49–54, <https://doi.org/10.55352/mudir.v5i1.28>.

²⁷ Mandasari et al., “INNOVATIVE PRINCIPAL LEADERSHIP MANAGEMENT IN IMPROVING TEACHER PROFESSIONALISM THROUGH LEARNING DAY AND LEARNING COMMUNICATION AT SD ISLAM PLUS AL-HIKMAH KANDIS.”

²⁸ Chen, “Facilitating Teacher Learning in Professional Learning Communities through Action Research.”

²⁹ Colebra and Luna, “An Exploratory Analysis of Support, Engagement, and Commitment (SEC) of School Administrators to Teacher Research Programs.”

³⁰ Colebra and Luna, “An Exploratory Analysis of Support, Engagement, and Commitment (SEC) of School Administrators to Teacher Research Programs.”

³¹ Mandasari et al., “INNOVATIVE PRINCIPAL LEADERSHIP MANAGEMENT IN IMPROVING TEACHER PROFESSIONALISM THROUGH LEARNING DAY AND LEARNING COMMUNICATION AT SD ISLAM PLUS AL-HIKMAH KANDIS.”

³² Licui Chen and Jia Zhang, “Exploring the Role and Practice of Teacher Leaders in Professional Learning Communities in China: A Case Study of a Shanghai Secondary School,” *Educational Studies* 50, no. 5 (2024): 1034–52, <https://doi.org/10.1080/03055698.2022.2026297>.

research, not only institutionalizes a culture of scientific inquiry but also significantly enhances teachers' overall job satisfaction, motivation, and pedagogical competence.³³

Digitalization and Management Innovation as a Catalyst for Quality Culture

The integration of Information and Communication Technology (ICT) into school administration serves as a vital component of educational digital transformation in the current era (Liu et al., 2025). Innovative leaders utilize ICT not only for pedagogical purposes but also as a strategic tool in organizational management that aligns with 21st-century requirements.³⁴ A strong digital culture within schools is built through the strengthening of an institutional digital vision, enhancing teacher digital literacy through training, and the active utilization of technology for both school management and classroom learning. Furthermore, the adoption of technology-driven curriculum, learning media, and evaluation systems are significant factors that promote the acquisition of essential 21st-century skills, such as ingenuity and critical analysis, among students.³⁵

Strategic management in the digital era involves a rigorous cycle of planning, implementation, and continuous evaluation to ensure institutional resilience and sustained quality improvement.³⁶ This adaptive approach allows schools to remain competitive by integrating advanced data management and digital strategies into their core operations.³⁷ Successful digital transformation also necessitates that principals act as visionary change agents who foster collaboration with external stakeholders to strengthen the school's digital ecosystem. By embracing technological advancements through adaptive and value-based strategies, educational institutions can effectively navigate global changes while maintaining their organizational identity and improving overall educational quality.

Unraveling Residual Barriers: Adaptive Strategies Amidst Structural Constraints

The implementation of research-based schools faces significant practical barriers, including heavy administrative workloads and limited time for educators. In remote areas or regions with limited resources, these challenges are exacerbated by minimal infrastructure, variations in

³³ Jia Zhang et al., "The Relationships among Transformational Leadership, Professional Learning Communities and Teachers' Job Satisfaction in China: What Do the Principals Think?," *Sustainability* 14, no. 4 (2022), <https://doi.org/10.3390/su14042362>.

³⁴ Nikmah et al., "Manajemen Perubahan Di Sekolah"; Muhamad Abdul Muid, "Information Literacy Skills of Students in Pesantren Environments: A SCONUL Seven Pillars Analysis in Language Learning Contexts," *Literaturia: Journal of Linguistics, Literature, and Language Teaching* 1, no. 1 (2026): 17–26.

³⁵ Abdulloh et al., "A Second-Order Confirmatory Factor Analysis Model of Primary School Administration Promoting 21st Century Skills"; Moh Solehuddin, "Leading by Example: Transformational Leadership Strategies in Shaping Multidimensional Religiosity of Madrasa Students," *Kawruh: Journal of Islamic Studies* 1, no. 1 (2026): 1–14; Nurul Indana, "From Ritual Compliance to Spiritual Internalization: The Experiential Dimension of Religiosity among Indonesian Madrasa Students," *Nawasena: Interdisciplinary Journal of Islamic Studies* 1, no. 1 (2026): 11–23.

³⁶ Khoirunnisa et al., "KEPEMIMPINAN INOVATIF KEPALA SEKOLAH DALAM PENDIDIKAN DI MASA PANDEMI COVID-19."

³⁷ Shofwan Arif Ibrahim Arif et al., "Empowering School Communities: A Leadership Model for Improving Educational Quality in Resource-Constrained Areas," *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 10, no. 3 (2025): 648–64, <https://doi.org/10.31538/ndhq.v10i3.260>.

leadership competencies, and a lack of adequate policy support.³⁸ Gaps in financial and technical support often serve as primary inhibitors to the sustainability of teacher research programs and the dissemination of research findings. These conditions frequently lead to emotional exhaustion and resistance to change within the school environment.

Despite these constraints, transformational leadership has proven capable of turning environmental limitations into innovative opportunities through appropriate contextual adaptation.³⁹ Effective strategies include building a shared vision through intensive communication, optimizing local resources, and strengthening teacher capacity through peer support networks and professional mentoring. Innovative leadership enhances quality management effectiveness by leveraging social capital and intrinsic motivation rather than relying solely on material resources. Thus, strengthening adaptive leadership capacity that is responsive to contextual limitations is the key to ensuring the sustainability of innovation and the transformation of schools toward an excellent research culture.

CONCLUSION

The transformation of a conventional school into a research and innovation-based educational ecosystem relies fundamentally on the strategic capacity of the school principal. This study concludes that an effective principal must transcend traditional administrative roles to become a visionary change agent who integrates transformational and innovative leadership. Establishing a robust research culture requires the institutionalization of scientific practices, such as action research, through active Professional Learning Communities (PLCs), which balance top-down mandates with teachers' professional needs. Furthermore, the strategic implementation of digitalization and adaptive management serves as a critical catalyst for continuous quality improvement. Despite persistent structural barriers—such as heavy administrative workloads, limited funding, and inadequate infrastructure, particularly in remote areas—principals can successfully navigate these challenges by leveraging social capital, fostering a shared vision, and optimizing local resources to sustain a dynamic and resilient learning organization.

Despite the comprehensive insights provided, this study acknowledges certain limitations. As a library research study relying exclusively on secondary data and existing literature, the findings may not fully capture the nuanced, localized realities of specific educational contexts in real-time. The theoretical framework synthesized here requires further empirical validation. Therefore, future research should focus on conducting primary empirical studies, utilizing mixed-methods or longitudinal approaches, to directly measure the impact of specific innovative leadership interventions on teacher research productivity and student learning outcomes across diverse geographical and socio-economic settings.

³⁸ Hamidatul Khalifah et al., "Transformational Leadership of School Principals in Improving School Quality in Remote Areas," *Journal of Educational Sciences* 10, no. 3 (2026): 129–41, <https://doi.org/10.31258/jes.10.3.p.129-141>.

³⁹ Ruth Mandak and Yuni Astuti, "Transformational School Leadership in Challenging Contexts: Lessons from Indonesia's Eastern Periphery," *Journal of Innovation and Research in Primary Education* 5, no. 1 (2026): 1021–29, <https://doi.org/10.56916/jirpe.v5i1.2872>.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

In the preparation of this manuscript, the author(s) utilized Gemini (Google AI) to assist with improving the clarity, readability, and stylistic consistency of the written text. All outputs were subsequently reviewed and revised by the author(s), who assume full responsibility for the final content of the publication.

REFERENCES

- Abdulloh, Wisana, Wuttichai Niemted, Recha Chusuwan, and Jirawat Tansakul. "A Second-Order Confirmatory Factor Analysis Model of Primary School Administration Promoting 21st Century Skills." *African Educational Research Journal* 10, no. 1 (2022): 28–37.
- Ariani, Ni Kadek Delin, Rizal Rizal, Pahriadi Pahriadi, Muhammad Aqil, Surahman Wilade, and Sisriawan Lapasere. "Innovative Leadership and Educational Quality Management: A Qualitative Study of Principal Practices in a Indonesian Primary School." *Journal of Innovation and Research in Primary Education* 5, no. 1 (2026): 662–73. <https://doi.org/10.56916/jirpe.v5i1.2851>.
- Arif, Shofwan Arif Ibrahim, Rasiman Rasiman, and Qristin Violinda. "Empowering School Communities: A Leadership Model for Improving Educational Quality in Resource-Constrained Areas." *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam* 10, no. 3 (2025): 648–64. <https://doi.org/10.31538/ndhq.v10i3.260>.
- Cabreros, Bryan S. "21st Century Instructional Leadership and Strategic Management of Technical Vocational Education and Training Programs." *Journal of Technical Education and Training* 15, no. 2 (2023): 33–49.
- Chen, Licui. "Facilitating Teacher Learning in Professional Learning Communities through Action Research: A Qualitative Case Study in China." *Teaching and Teacher Education* 119 (November 2022): 103875. <https://doi.org/10.1016/j.tate.2022.103875>.
- Chen, Licui, and Jia Zhang. "Exploring the Role and Practice of Teacher Leaders in Professional Learning Communities in China: A Case Study of a Shanghai Secondary School." *Educational Studies* 50, no. 5 (2024): 1034–52. <https://doi.org/10.1080/03055698.2022.2026297>.
- Colebra, Janice, and Elena De Luna. "An Exploratory Analysis of Support, Engagement, and Commitment (SEC) of School Administrators to Teacher Research Programs." *International Journal of Management and Administration* 9, no. 18 (2025): 98–144. <https://doi.org/10.29064/ijma.1761633>.
- Gilbertson, Erica, and Aliko Nicolaides. "Centering Community Building to Facilitate Transformative Change for New Teachers: An Action Research Study." *Action Research* 21, no. 1 (2023): 81–103. <https://doi.org/10.1177/14767503221147012>.
- Indana, Nurul. "From Ritual Compliance to Spiritual Internalization: The Experiential Dimension of Religiosity among Indonesian Madrasa Students." *Nawasena: Interdisciplinary Journal of Islamic Studies* 1, no. 1 (2026): 11–23.

- Khalifah, Hamidatul, Heru Santosa, Winda Dewi Listyasari, and Syafaat Ariful Huda. "Transformational Leadership of School Principals in Improving School Quality in Remote Areas." *Journal of Educational Sciences* 10, no. 3 (2026): 129–41. <https://doi.org/10.31258/jes.10.3.p.129-141>.
- Khoirunnisa, Nisrina, Vika Sarika, and Zulfadi Zulfadi. "KEPEMIMPINAN INOVATIF KEPALA SEKOLAH DALAM PENDIDIKAN DI MASA PANDEMI COVID-19." *Tazkiya: Jurnal Pendidikan Islam* 11, no. 1 (2022): 71–80. <https://doi.org/10.30829/taz.v11i1.1268>.
- Khoriroh, Fitri, Encep Syarifudin, and Apud Apud. "Transformational Leadership Strategies and Innovative Leadership of Madrasah Principals in Improving Teacher Performance." *Halaqa: Islamic Education Journal* 9, no. 2 (2025): 140–50. <https://doi.org/10.21070/halaqa.v9i2.1812>.
- Manaf, Sofwan, and Rokimin. "Peran Kepala Sekolah Dalam Meningkatkan Kompetensi Guru Di Pondok Pesantren Darunnajah Jakarta." *Mudir: Jurnal Manajemen Pendidikan* 5, no. 1 (2023): 49–54. <https://doi.org/10.55352/mudir.v5i1.28>.
- Mandak, Ruth, and Yuni Astuti. "Transformational School Leadership in Challenging Contexts: Lessons from Indonesia's Eastern Periphery." *Journal of Innovation and Research in Primary Education* 5, no. 1 (2026): 1021–29. <https://doi.org/10.56916/jirpe.v5i1.2872>.
- Mandasari, Putri, Marwa Marwa, and Nurliana Nasution. "INNOVATIVE PRINCIPAL LEADERSHIP MANAGEMENT IN IMPROVING TEACHER PROFESSIONALISM THROUGH LEARNING DAY AND LEARNING COMMUNICATION AT SD ISLAM PLUS AL-HIKMAH KANDIS." *Pedagogical Research Journal* 3, no. 2 (2025): 129–34.
- Moloto, Boledi Melita, Ntokoza Dennis Ndwandwe, and Sulaimon Adewale. "Transformational Leadership in Action: Principals' Experiences of Turning Around Underperforming Schools in Rural South Africa." *Leadership and Policy in Schools* 0, no. 0 (2026): 1–16. <https://doi.org/10.1080/15700763.2026.2625321>.
- Muid, Muhamad Abdul. "Information Literacy Skills of Students in Pesantren Environments: A SCONUL Seven Pillars Analysis in Language Learning Contexts." *Literaturia: Journal of Linguistics, Literature, and Language Teaching* 1, no. 1 (2026): 17–26.
- Nikmah, Hayatun, Lastumi, Wijayanti Wijayanti, and Ratna Damayanti. "Manajemen Perubahan Di Sekolah: Strategi Kepala Sekolah Dalam Membangun Budaya Digital Untuk Meningkatkan Kualitas Pembelajaran." *Journal Educatione* 2, no. 2 (2025). <https://journal.univgresik.ac.id/index.php/je/article/view/687>.
- Norman, Efrita, Faiz Aizat, Heni Feviasari, and Melly Nuryani. "Strategic Leadership of School Principals in Enhancing Educational Quality Through Transformational Management and Collaborative Governance." *El-Idare: Journal of Islamic Education Management* 11, no. 1 (2025): 81–88. <https://doi.org/10.19109/elidare.v11i1.27335>.
- Randa, Musytari, and Muhammad Yusuf. "Strategi Kepemimpinan Dan Manajemen Pendidikan Inovatif Dalam Mendorong Kinerja Guru Sekolah Berkelanjutan Di Indonesia." *Al-Ubudiyah: Jurnal Pendidikan Dan Studi Islam* 6, no. 2 (2025): 203–11. <https://doi.org/10.55623/au.v6i2.562>.

- Solehuddin, Moh. "Leading by Example: Transformational Leadership Strategies in Shaping Multidimensional Religiosity of Madrasa Students." *Kawruh: Journal of Islamic Studies* 1, no. 1 (2026): 1–14.
- Susanti, Deli, Jumira Warlizasusi, Emmi Kholilah Harahap, and Destriani Destriani. "MANAJEMEN PERUBAHAN DI MADRASAH: STRATEGI ADAPTIF DALAM MENINGKATKAN MUTU PENDIDIKAN ISLAM DI MADRASAH IBTIDAIYAH (MI) MUHAMMADIYAH REJANG LEBONG." *At-Tadbir: Jurnal Manajemen Pendidikan Islam* 5, no. 2 (2025): 90–101. <https://doi.org/10.51700/attadbir.v5i2.1048>.
- Syifahaya, Hawanuran, and Istanto. "Transformative and Innovative Leadership: The Key to Successful Teacher Competency Development in Islamic Schools." *Ta'dib: Jurnal Pendidikan Islam* 30, no. 1 (2025): 138–54. <https://doi.org/10.19109/td.v30i1.28227>.
- Thongsak, Giraphat. "Management Skills of 21st Century School Administrators According to the Saṅgahavathu 4 Principles." *ASEAN Journal of Religious and Cultural Research* 7, no. 3 (2024): 1–3.
- Zafi, Ashif Az, Mahmudatul Maula, Anis Tsuroyya, Laura Ameylia Novita Sari, and Ahmad Jauhari. "Manajemen Pembentukan Budaya Riset (Research Culture) Pada Siswa Madrasah Aliyah Negeri 2 Kudus." *Piwulang: Jurnal Pendidikan Agama Islam* 6, no. 2 (2024): 232–45. <https://doi.org/10.32478/2dgcbn05>.
- Zhang, Jia, Qinan Huang, and Jianmei Xu. "The Relationships among Transformational Leadership, Professional Learning Communities and Teachers' Job Satisfaction in China: What Do the Principals Think?" *Sustainability* 14, no. 4 (2022). <https://doi.org/10.3390/su14042362>.