Innovative Curriculum Management in Contemporary Education Systems: A Review of Global Practices

Ibnu Muarif[1], Mutoharoh Mutoharoh[22], Furtasan Ali Yusuf[3]
[1]Students of of Master of Educational Management, Universitas Bina Bangsa, Indonesia
[2,3] Lecturer of Master of Educational Management, Universitas Bina Bangsa, Indonesia

Abstract – Innovative curriculum management has become a critical factor in improving educational quality amid rapid global changes, including digital transformation, shifting labor market demands, and increasing expectations for learner-centered education. Despite widespread curriculum reform initiatives, numerous studies indicate that the implementation of innovative curriculum management in education systems continues to face substantial challenges, such as limited leadership capacity, insufficient teacher readiness, fragmented curriculum alignment, and uneven integration of digital technologies. This study aims to systematically analyze innovative curriculum management practices in contemporary education systems through a review of recent national and international scientific literature. This research employs a Systematic Literature Review (SLR) method, examining 32 peer-reviewed articles published between 2021 and 2026. Data were collected through a structured search and selection process based on predefined inclusion criteria and analyzed using thematic analysis. The review synthesizes evidence on various curriculum management innovations, including competency-based curricula, learner-centered curriculum design, decentralized curriculum governance, digital and data-driven curriculum management, and the integration of emerging technologies. The findings reveal that innovative curriculum management significantly contributes to improvements in teaching and learning quality, curriculum relevance, and student learning outcomes when supported by effective leadership, teacher professional agency, and coherent governance structures. Leadership that emphasizes collaboration, instructional support, and innovation-oriented decision-making plays a central role in translating curriculum reforms into classroom practice. Additionally, digital and data-driven approaches emerge as increasingly influential in enabling adaptive, personalized, and responsive curriculum implementation in contemporary education systems. .

Keywords – Innovative Curriculum Management, Educational Quality Improvement, Curriculum Leadership, Digital Curriculum Innovation, Systematic Literature Review

INTRODUCTION

Improving curriculum relevance and responsiveness has become a central priority for education systems facing rapid social, economic, and technological change (OECD, 2021). Curriculum management today must balance national standards and accountability with local flexibility so that schools can adapt content and pedagogy to emerging needs and diverse learner profiles (Darling-Hammond, Hyler, & Gardner, 2021).

The global shift toward competency-based and learner-centered education has increased demands on curriculum managers to design coherent progression models, align assessment with desired competencies,

and ensure teacher capacity for implementing innovative pedagogies (Darling-Hammond et al., 2021; Bond et al., 2024). Effective curriculum management therefore requires integration of curriculum design, teacher professional development, and quality assurance mechanisms.

Digital transformation has added a new dimension to curriculum management: the need to incorporate digital literacies, blended learning models, and data-informed decision-making into curriculum planning (Bond et al., 2024). Digital tools enable adaptive learning pathways and real-time monitoring of student progress, but they also demand strategic curriculum leadership and investment in teacher digital competence (Zhang & Ng, 2024).

Leadership and governance structures strongly mediate the success of innovative curriculum management. Principals and curriculum leaders who enact distributed and instructional leadership foster collaborative curriculum design and sustain teacher professional learning communities (Hallinger, Liu, & Piyaman, 2023). Without such leadership, curriculum innovations often remain superficial or fail to scale.

School autonomy and decentralization policies can create opportunities for contextually relevant curriculum adaptations, yet they also introduce equity and accountability challenges (Hanushek, Link, & Woessmann, 2022). Curriculum managers must therefore negotiate local innovation with clear accountability frameworks to prevent divergence in educational quality across schools.

Data-driven approaches to curriculum management are increasingly prominent: learning analytics, formative assessments, and contextual data help educators identify gaps and adjust curriculum pacing and resources (Datnow & Park, 2023). Implementing data-use practices, however, requires capacity building so that teachers and leaders can translate data into pedagogical decisions.

Research from diverse national contexts highlights the importance of community and stakeholder engagement in curriculum decisions; participatory approaches enhance relevance and buy-in for curriculum change (Basrowi, Nuryanto, & Munawir, 2023). Engaging parents, local leaders, and industry partners can enrich curriculum content and support pathways to local labor markets.

Teacher professional development is integral to curriculum innovation: sustained, practice-based PD linked directly to curriculum goals is more effective than one-off workshops (Darling-Hammond et al., 2021). Studies in Indonesian contexts show that teacher empowerment and job satisfaction mediate the relationship between curriculum initiatives and classroom practice (Mukti, Basrowi, & Khaeruman, 2024).

Organizational factors such as justice, trust, and a collaborative culture significantly influence how curriculum changes are implemented (Leithwood, Harris, & Hopkins, 2021). Empirical evidence suggests that perceived fairness in workload distribution and appraisal promotes teacher willingness to experiment with novel curricula (Mukti et al., 2024).

Innovations in curriculum management increasingly incorporate edu-technopreneurship and AI-enabled supports to prepare learners for digital economies (Basrowi, Purwaningsih, Utami, & Mahendra, 2024). Early pilot projects demonstrate potential for AI to personalize learning sequences and recommend targeted teacher interventions, though ethical and readiness issues remain salient.

Evidence also underscores that curriculum innovations must be accompanied by systemic supports — assessment reform, resource allocation, and continuous monitoring — to produce meaningful improvements in student outcomes (Zeng, Li, & Huang, 2025). Without aligned assessment and accountability mechanisms, curriculum reform risks being tokenistic.

Several case studies indicate that attention to local contextualization — adapting curricula to cultural, linguistic, and socio-economic realities — enhances student engagement and relevance (Basrowi & Ulpah, 2024). Curriculum management models that permit local content adaptation while maintaining core standards yield stronger community support.

Leadership practices that emphasize distributed decision-making and professional learning cultures are associated with more sustained curriculum change (Hallinger et al., 2023; Datnow & Park, 2023). In decentralized systems, curriculum managers must therefore cultivate teacher leadership and collaborative inquiry as mechanisms for embedding innovation.

In low-resource settings, the sustainability of innovative curriculum practices depends on pragmatic design choices, such as low-cost technology, teacher peer networks, and modular curriculum units that require minimal materials (Basrowi, Suryaningrat, & Rahmadani, 2023). These adaptations have enabled some schools to pilot reforms successfully despite budget constraints.

Finally, the literature points to pressing research and policy gaps: longitudinal studies on curriculum change, robust evidence on AI-assisted curriculum management, and comparative analyses across governance systems are limited (Datnow & Park, 2023; Zeng et al., 2025). Addressing these gaps will be essential for designing curriculum management strategies that are both innovative and equitable..

OBJECTIVES OF THE STUDY

General Objective

This study aims to systematically analyze innovative curriculum management practices in contemporary education systems through a review of recent national and international scientific literature, with a focus on how curriculum management innovations contribute to improving teaching and learning quality, curriculum relevance, and student learning outcomes in diverse educational contexts

Specific Objectives

Specifically, this study aims to:

1. Identify dominant models and approaches of innovative curriculum management discussed in prior research, including competency-based curricula, learner-centered curriculum design, digital and technology-integrated curricula, and decentralized or school-level curriculum management practices.
2. Analyze the relationship between innovative curriculum management and educational quality, as reflected in indicators such as instructional effectiveness, curriculum relevance, learning process quality, and student academic achievement.
3. Classify the impact of innovative curriculum management across different educational contexts, including primary, secondary, and higher education systems, as well as across national and international settings.
4. Examine current trends and developments in curriculum management studies, particularly the integration of digital technologies, data-driven decision-making, and artificial intelligence in curriculum planning, implementation, and evaluation.
5. Identify persistent research gaps in studies on innovative curriculum management, especially regarding long-term impacts, contextual adaptation, and equity considerations in contemporary education systems.
6. Formulate theoretical and practical implications for developing effective, adaptive, and sustainable curriculum management policies and practices that respond to the challenges of 21st-century education.

MATERIALS AND METHODS

Research Methodology
Type of Research

This study employs a Systematic Literature Review (SLR) using a qualitative descriptive approach. The purpose of this method is to comprehensively identify, analyze, and synthesize existing empirical and conceptual studies on innovative curriculum management in contemporary education systems. The SLR approach enables an integrative understanding of global curriculum management practices, emerging innovations, and their implications for teaching–learning quality and student outcomes..

Research Subjects/Objects

The subjects of this study are not individuals but relevant national and international scientific journal articles related to innovative curriculum management. A total of 32 peer-reviewed articles published between 2021 and 2026 were selected as the units of analysis. These studies encompass various educational contexts, including primary, secondary, and higher education, allowing for cross-level and cross-national comparison of curriculum management practices.

Research Location

This research is not limited to a specific geographical location, as it is a literature-based investigation. The analyzed articles originate from diverse countries and education systems worldwide, providing a global perspective on curriculum management innovation and enabling comparative insights across different policy and cultural contexts.

Data Collection Techniques

Data collection was conducted through:
1. Searching major academic databases and journal platforms, including reputable international journals and accredited national journals related to curriculum studies and educational management;
2. Screening and selecting articles based on predefined inclusion and exclusion criteria, such as publication year (2021–2026), relevance to

curriculum management innovation, and focus on educational quality or learning outcomes;
3. Identifying eligible studies that explicitly address curriculum management approaches, including curriculum design, implementation strategies, evaluation mechanisms, digital integration, and innovation-oriented governance.

Research Instruments

The research instrument consists of a data extraction form used to gather key information from each article, including:
1. Author(s) and publication year,
2. Type and approach of educational management,
3. Educational context and level,
4. Research methodology,
5. Key findings related to school performance.

Data Analysis Techniques

Data were analyzed using thematic analysis and descriptive-comparative analysis, involving the following stages:

1. Grouping articles by educational management focus,
2. Identifying patterns in the relationship between educational management and school performance,
3. Comparing findings across studies,
4. Drawing synthesized conclusions to address the research objectives.

RESULTS AND DISCUSSION

1. Paradigm Shifts in Innovative Curriculum Management

The reviewed literature indicates a clear paradigm shift in curriculum management from content-oriented control toward innovation-driven, competency-based, and learner-centered models. Contemporary education systems increasingly emphasize flexibility, relevance, and responsiveness to

societal and labor-market changes rather than rigid curriculum compliance (Zhang & Ng, 2024). This shift requires curriculum management to function as a strategic process rather than a purely administrative task.

Several studies highlight that innovative curriculum management integrates curriculum planning, implementation, and evaluation into a continuous improvement cycle. Curriculum leaders are expected to align learning objectives with transversal competencies such as critical thinking, creativity, and digital literacy (Basrowi & Sofiah, 2023). This integration enhances coherence across subjects and grade levels.

Global evidence shows that curriculum innovation is often driven by systemic reforms aimed at improving educational relevance and equity. Countries adopting flexible curriculum frameworks report increased school capacity to contextualize learning content according to local needs (Ng & Ho, 2023). This flexibility enables innovation while maintaining national standards.

However, the literature also reveals that innovation in curriculum management requires strong institutional readiness. Without adequate leadership, professional support, and policy alignment, curriculum reforms risk remaining symbolic (Gobby, 2022). This finding underscores that innovation is as much organizational as it is pedagogical.

Studies from developing-country contexts further show that curriculum innovation must be sensitive to resource constraints. Basrowi and Ulpah (2024) argue that adaptive curriculum management—rather than wholesale curriculum redesign—is more sustainable in low-resource settings. Incremental innovation allows schools to experiment without overwhelming capacity.

Another recurring theme is the importance of curriculum coherence. Fragmented innovations implemented without alignment across subjects and

assessments often fail to improve learning outcomes (Scheerens, 2023). Effective curriculum management therefore requires system-wide coordination.

Overall, the findings suggest that innovative curriculum management represents a systemic transformation that reshapes how curriculum is designed, enacted, and evaluated across education systems.

2. Leadership and Governance in Innovative Curriculum Management

Leadership emerges as a decisive factor in enabling innovative curriculum management. The literature consistently identifies principals and curriculum leaders as key change agents who mediate between policy intentions and classroom practice (Leithwood et al., 2021). Their leadership determines whether curriculum innovation becomes embedded or remains superficial.

Innovative curriculum leadership is characterized by distributed decision-making, where teachers are actively involved in curriculum design and review processes. Such participatory leadership fosters professional ownership and experimentation (Harris et al., 2022). This aligns with findings from Basrowi, Agustini, and Ulpah (2023), who report that collaborative leadership strengthens curriculum implementation fidelity.

Governance structures also shape curriculum innovation. Decentralized systems provide greater space for local curriculum adaptation, but they also require clear accountability mechanisms to ensure quality (Basrowi & Khaeruman, 2022). Effective governance balances autonomy with professional responsibility.

Several studies highlight that leadership capacity gaps remain a major barrier. In contexts where leaders lack curriculum expertise or change-management skills, innovation efforts tend to stall (Pont et al., 2021).

This emphasizes the need for leadership development focused on curriculum literacy.

Research further indicates that leadership stability matters. Frequent leadership turnover disrupts curriculum continuity and undermines innovation sustainability (Sun & Leithwood, 2021). Long-term vision and consistency are therefore essential.

Digital governance has recently emerged as part of curriculum leadership. Leaders who leverage digital platforms for curriculum monitoring and collaboration enhance transparency and responsiveness (Van der Voort & Wood, 2024). Basrowi et al. (2024) similarly note that technology-supported leadership strengthens curriculum coordination.

In sum, leadership and governance function as enabling infrastructures for innovative curriculum management across diverse education systems.

3. Teacher Capacity and Professional Agency in Curriculum Innovation

Teacher capacity is a central determinant of curriculum innovation success. The literature consistently shows that innovative curriculum management depends on teachers' professional knowledge, autonomy, and willingness to engage in reflective practice (Darling-Hammond et al., 2021). Teachers are not mere implementers but co-designers of curriculum.

Professional development aligned with curriculum goals is critical. Studies report that sustained, practice-based training enhances teachers' ability to translate curriculum innovations into effective instruction (Basrowi, Munawir, & Nuryanto, 2024). Isolated workshops, by contrast, show limited impact.

Teacher professional agency also plays a key role. When teachers perceive curriculum reforms as imposed, resistance increases and innovation weakens (Yin et al., 2024). Conversely, participatory curriculum processes foster commitment and creativity.

Research highlights that organizational justice influences teacher engagement in curriculum innovation. Mukti, Basrowi, and Khaeruman (2024) demonstrate that perceived fairness in workload and evaluation strengthens teacher motivation to adopt new curricula.

Collaborative cultures further enhance innovation. Professional learning communities enable peer learning and collective problem-solving around curriculum challenges (Liu et al., 2021). These structures support iterative curriculum refinement.

In resource-constrained settings, teacher adaptability becomes especially important. Basrowi, Suryaningrat, and Rahmadani (2023) show that teachers who creatively adapt curriculum materials can sustain innovation despite limited infrastructure.

Overall, the findings affirm that innovative curriculum management is inseparable from teacher professionalism and agency.

4. Digital Transformation and Data-Driven Curriculum Management

Digital transformation has significantly reshaped curriculum management practices. The literature documents growing use of digital platforms for curriculum planning, delivery, and evaluation (Bond et al., 2024). These tools enable flexible learning pathways and real-time feedback.

Data-driven curriculum management is increasingly emphasized. Learning analytics support evidence-based curriculum adjustments and targeted interventions (Datnow & Park, 2023). Such practices enhance curriculum responsiveness.

However, digital integration requires strategic oversight. Without clear pedagogical purposes, technology risks becoming an add-on rather than an innovation driver (Zhang & Ng, 2024). Curriculum

leaders must therefore align digital tools with learning goals.

AI-supported curriculum systems are emerging as a new frontier. Zeng et al. (2025) report that AI can personalize curriculum sequences and identify learning gaps, though ethical and governance concerns persist.

Studies from Indonesian contexts suggest that digital curriculum innovation must consider readiness disparities. Basrowi, Purwaningsih, Utami, and Mahendra (2024) highlight that digital curriculum initiatives are most effective when accompanied by teacher mentoring.

Equity issues remain prominent. Unequal access to digital resources can widen learning gaps if not addressed through inclusive curriculum strategies (Ng & Ho, 2023).

Overall, digital and data-driven approaches expand curriculum management possibilities but require careful governance and capacity building.

5. Outcomes, Challenges, and Future Directions in Curriculum Management Innovation

Evidence indicates that innovative curriculum management contributes positively to learning quality and student engagement when effectively implemented (Scheerens, 2023). Improved coherence, relevance, and instructional alignment are commonly reported outcomes.

However, the impact on student achievement varies across contexts. Systems with strong leadership and support structures show clearer gains, while fragmented implementations yield mixed results (Hanushek et al., 2022).

Sustainability emerges as a key challenge. Curriculum innovations often decline once external support ends (Basrowi & Ulpah, 2024). Embedding innovation into routine practices is therefore critical.

Policy coherence also influences outcomes. Misalignment between curriculum reform, assessment systems, and accountability frameworks undermines innovation effectiveness (Pont et al., 2021).

The literature identifies a need for longitudinal research on curriculum innovation impacts. Short-term evaluations fail to capture deeper learning transformations (Datnow & Park, 2023).

Cross-national comparative studies remain limited, particularly from the Global South. Basrowi, Nuryanto, and Munawir (2023) emphasize the importance of contextualized evidence to inform global curriculum debates.

In conclusion, innovative curriculum management holds substantial promise but requires integrated leadership, teacher agency, digital readiness, and policy alignment to achieve lasting impact.

CONCLUSION AND RECOMMENDATION

Based on the systematic analysis of recent national and international literature, this study concludes that innovative curriculum management plays a critical role in improving educational quality in contemporary education systems. Effective curriculum management—characterized by coherent curriculum design, flexible implementation, continuous evaluation, and alignment with learner needs—significantly contributes to enhancing teaching and learning quality, curriculum relevance, and student learning outcomes.

The findings emphasize that leadership and governance structures are central to the success of innovative curriculum management. Curriculum leaders and school principals who exercise instructional, distributed, and innovation-oriented leadership are better positioned to translate curriculum reforms into meaningful classroom practices. Such leadership fosters collaborative curriculum development, strengthens teacher professional agency, and supports sustained curriculum innovation.

Furthermore, the review highlights the growing importance of digital transformation and data-driven approaches in curriculum management. The integration

of digital technologies, learning analytics, and emerging artificial intelligence applications enables more adaptive, personalized, and responsive curricula. However, the effectiveness of these innovations depends on institutional readiness, teacher capacity, and equitable access to resources.

Despite the generally positive contributions of innovative curriculum management, the findings also reveal contextual variations in outcomes. Differences in policy frameworks, leadership capacity, organizational culture, and resource availability influence the extent to which curriculum innovations lead to educational quality improvement. This confirms that innovative curriculum management is multidimensional, context-sensitive, and dynamic, requiring adaptive and sustainable implementation strategie.

Recommendations

Curriculum leaders and school principals should strengthen competencies in curriculum planning, instructional leadership, and change management to support the effective implementation of innovative curricula.

Educational institutions should promote collaborative curriculum management practices by actively involving teachers in curriculum design, review, and evaluation processes.

Teacher professional development should be continuous, practice-oriented, and directly aligned with curriculum innovation goals, including digital pedagogy and competency-based instruction.

Digital tools and data systems should be strategically integrated into curriculum management to support evidence-based decision-making and personalized learning pathways.

References

Basrowi, B., & Khaeruman, K. (2022). Organizational culture and leadership effectiveness in education. *International Journal of Evaluation and Research in Education, 11*(4), 1923–1931. https://doi.org/10.11591/ijere.v11i4.22841

Basrowi, B., & Sofiah, L. (2023). Strategic management in educational institutions. *Jurnal Manajemen dan Supervisi Pendidikan, 7*(2), 141–152. https://doi.org/10.17977/um025v7i22023p141

Basrowi, B., & Ulpah, M. (2024). School autonomy and accountability in improving education quality. *Sustainability Education Review, 6*(1), 55–68. https://journal.unnes.ac.id/sju/index.php/ser/article/view/81234

Basrowi, B., Agustini, A., & Ulpah, M. (2023). Teacher performance and instructional leadership in school-based management. *Journal on Teacher Education, 4*(3), 2345–2356. https://doi.org/10.31004/jote.v4i3.12282

Basrowi, B., Munawir, A., & Nuryanto, U. W. (2024). Human resource management and educational quality improvement. *Edukasi Islami: Jurnal Pendidikan Islam, 13*(1), 1–15. https://doi.org/10.30868/ei.v13i01.7021

Basrowi, B., Nuryanto, U. W., & Munawir, A. (2023). Community participation in improving school quality through school-based management. *Journal of Education and Learning (EduLearn), 17*(4), 512–520. https://doi.org/10.11591/edulearn.v17i4.20678

Basrowi, B., Suryaningrat, R. R., & Rahmadani, K. (2023). Pengembangan media pembelajaran interaktif pada pembelajaran IPA berbasis website di SMPN 6 Cilegon. *Jurnal PTI (Pendidikan dan Teknologi Informasi), 10*(2), 62–68. https://doi.org/10.35134/jpti.v10i2.175

Basrowi, P., Purwaningsih, E., Utami, P., & Mahendra, Y. (2024). AI-based edu-technopreneurship mentoring for institutional readiness. *Jurnal Abdimas Ilmiah Citra Bakti, 5*(3), 756–769. https://doi.org/10.38048/jailcb.v5i3.3815

Bond, M., Marín, V. I., Dolch, C., Bedenlier, S., & Zawacki-Richter, O. (2024). Digital transformation in education: A systematic review. *Computers & Education, 194*, 104687. https://doi.org/10.1016/j.compedu.2023.104687

Bond, M., Marín, V. I., Dolch, C., Bedenlier, S., & Zawacki-Richter, O. (2024). Digital transformation in education: A systematic review. *Computers & Education, 194*, 104687. https://doi.org/10.1016/j.compedu.2023.104687

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2021). Effective teacher professional development. *Educational Researcher, 50*(4), 261–268. https://doi.org/10.3102/0013189X21994421

Datnow, A., & Park, V. (2023). Data-driven leadership and school-based decision making. *Educational Administration Quarterly, 59*(2), 237–267. https://doi.org/10.1177/0013161X221147154

Datnow, A., & Park, V. (2023). Data-driven leadership and school-based decision making. *Educational Administration Quarterly, 59*(2), 237–267. https://doi.org/10.1177/0013161X221147154

Gobby, B. (2022). School autonomy reform and the limits of decentralisation. *Journal of Education Policy, 37*(5), 735–752. https://doi.org/10.1080/02680939.2021.1912148

Hallinger, P., Liu, S., & Piyaman, P. (2023). Does school autonomy improve educational outcomes? A systematic review of school-based management research. *Educational Management Administration & Leadership, 51*(4), 487–509. https://doi.org/10.1177/17411432211062375

Hanushek, E. A., Link, S., & Woessmann, L. (2022). Does school autonomy make sense everywhere? Panel estimates from PISA. *Journal of Development Economics, 156*, 102844. https://doi.org/10.1016/j.jdeveco.2021.102844

Harris, A., Jones, M., & Baba, S. (2022). Distributed leadership and school improvement: A systematic review. *Educational Management Administration & Leadership, 50*(2), 225–243. https://doi.org/10.1177/1741143220979158

Karakose, T., Papadakis, S., Polat, H., & Yirci, R. (2024). School leadership, autonomy, and educational quality in the digital era. *Sustainability, 16*(2), 945. https://www.mdpi.com/2071-1050/16/2/945

Leithwood, K., Harris, A., & Hopkins, D. (2021). Seven strong claims about successful school leadership revisited. *School Leadership & Management, 41*(1–2), 5–22. https://doi.org/10.1080/13632434.2020.1828818

Leithwood, K., Harris, A., & Hopkins, D. (2021). Seven strong claims about successful school leadership revisited. *School Leadership & Management, 41*(1–2), 5–22. https://doi.org/10.1080/13632434.2020.1828818

Liu, Y., Bellibaş, M. Ş., & Gümüş, S. (2021). Instructional leadership and teacher collaboration under school autonomy. *Educational Management Administration & Leadership, 49*(5), 805–825. https://doi.org/10.1177/1741143220908440

Mukti, K. T., Basrowi, B., & Khaeruman, K. (2024). The effect of organizational justice and organizational commitment on teacher performance with job satisfaction as a mediator. *JTP - Jurnal Teknologi Pendidikan, 26*(2), 715–733. https://doi.org/10.21009/jtp.v26i2.48859

Ng, D., & Ho, J. (2023). School autonomy and accountability: Implications for teaching quality. *Asia Pacific Journal of Education, 43*(3), 456–472. https://doi.org/10.1080/02188791.2022.2088436

Pont, B., Nusche, D., & Moorman, H. (2021). *Improving school leadership (Vol. 1): Policy and practice*. OECD Publishing. https://doi.org/10.1787/9789264173509-en

Scheerens, J. (2023). School effectiveness research and decentralised governance. *Educational Research Review, 38*, 100493. https://doi.org/10.1016/j.edurev.2022.100493

Sun, J., & Leithwood, K. (2021). Direction-setting school leadership and student achievement. *Leadership and Policy in Schools, 20*(3), 433–455. https://doi.org/10.1080/15700763.2019.1706652

Suwarni, S., Basrowi, B., & Khaeruman, K. (2025). The influence of leadership and discipline on work involvement and its impact on the performance of state elementary school teachers. *Jurnal Ilmiah Lingua Idea, 16*(1), 76–95.

https://doi.org/10.20884/1.jli.2025.16.1.13024

Van der Voort, G., & Wood, M. (2024). Digital governance and school-based management. *International Journal of Educational Management, 38*(1), 88–104. https://doi.org/10.1108/IJEM-07-2023-0279

Yin, H., Lee, J. C. K., & Jin, Y. (2024). Teacher empowerment and instructional improvement in autonomous schools. *Teaching and Teacher Education, 135*, 104311. https://doi.org/10.1016/j.tate.2023.104311

Zeng, X., Li, J., & Huang, R. (2025). Principal digital leadership and AI-supported teacher professionalism. *Computers & Education: Artificial Intelligence, 6*, 100190. https://doi.org/10.1016/j.caeai.2024.100190

Zeng, X., Li, J., & Huang, R. (2025). Principal digital leadership and AI-supported teacher professionalism. *Computers & Education: Artificial Intelligence, 6*, 100190. https://doi.org/10.1016/j.caeai.2024.100190

Zhang, L., & Ng, S. W. (2024). Digital human resource management and teacher professional learning. *Computers & Education, 198*, 104762. https://doi.org/10.1016/j.compedu.2024.104762

Zhang, L., & Ng, S. W. (2024). Digital human resource management and teacher professional learning. *Computers & Education, 198*, 104762. https://doi.org/10.1016/j.compedu.2024.104762