ADVANCING PRIMARY EDUCATION: OPTIMIZING SCHOOL MANAGEMENT THROUGH CURRICULUM INNOVATION

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ABSTRACT

Curriculum innovation has been widely promoted as a key strategy for improving educational quality however, its implementation in primary education often remains fragmented and weakly integrated into school management practices. As a result, curriculum reforms frequently fail to produce sustainable improvements in learning outcomes and organizational effectiveness. This study aimed to develop and examine the effectiveness of a curriculum management model that integrates curriculum innovation within primary school management. A research and development design was employed, following the Borg and Gall framework, and included needs analysis, expert validation, and effectiveness testing using a pretest–posttest control group design. Quantitative data were analyzed using descriptive statistics and multiple linear regression. The findings indicate that innovation-oriented management practices significantly predict effective curriculum implementation and are associated with improved student-related outcomes, particularly in behavioral and problem-solving competencies. These results suggest that curriculum innovation functions most effectively when embedded within coherent managerial processes. The study contributes to educational management theory by positioning curriculum innovation as a strategic managerial instrument and offers practical implications for school leaders and policymakers seeking to implement sustainable curriculum reforms in primary education.

1. INTRODUCTION

Primary education constitutes a critical foundation for the long-term development of human capital and the sustainability of educational systems worldwide (Xiao, Sheng, & Zhang, 2025). The quality of learning outcomes at this level is not only shaped by instructional practices in the classroom but is fundamentally influenced by how schools are managed and how curricula are designed, implemented, and continuously improved (Winarti & Ahyani, 2025). In recent decades, rapid social change, technological advancement, and increasing demands for advanced competencies for a rapidly changing society have intensified calls for curriculum innovation that is responsive, adaptive, and contextually relevant. However, evidence from diverse educational contexts suggests that curriculum reform alone is insufficient to generate meaningful improvement when it is not supported by effective school management structures, strategic leadership, and systematic performance evaluation (Ralebese & Jita, 2025). As a result, optimizing school management through curriculum innovation has emerged as a central concern in efforts to enhance the quality of primary education, positioning the interaction between curriculum development and school management as a decisive factor in achieving sustainable educational improvement (Wang, 2024).

Despite the widespread adoption of curriculum reforms in primary education, many schools continue to struggle with translating these innovations into improved educational quality (Worden & Bray, 2025). In practice, curriculum innovation is frequently implemented in a fragmented manner, disconnected from comprehensive school management strategies and institutional capacity. School leaders and teachers often face constraints related to limited managerial competence, insufficient professional development, and inadequate alignment between curriculum objectives and organizational planning. Moreover, the absence of robust monitoring and evaluation mechanisms further weakens the ability of schools to assess the effectiveness of curriculum implementation and make evidence-based adjustments (Kumar, Kaur, & Singh, 2025). Consequently, curriculum innovation in many primary schools remains procedural rather than transformative, yielding minimal impact on teaching quality and student learning outcomes. These persistent challenges highlight a critical problem: the lack of an integrated approach that positions curriculum innovation as a core component of effective school management in primary education (Isabirye et al., 2025).

In response to these challenges, this study aims to examine how curriculum innovation can be strategically leveraged to optimize school management in primary education. Specifically, the research seeks to analyze the role of curriculum innovation in shaping managerial practices, identify effective school management strategies that support the implementation of innovative curricula, and assess their implications for improving the quality of primary education. By adopting an integrative analytical perspective, this study aspires to generate a coherent understanding of the interrelationship between curriculum innovation and school management processes. Ultimately, the findings are expected to contribute a conceptual and practical framework that can inform educational leaders, policymakers, and practitioners in designing and managing curriculum reforms that lead to sustainable improvements in primary education quality (Sliwka et al., 2026).

Existing scholarship on primary education has extensively examined curriculum innovation and school management as separate domains, often emphasizing either pedagogical reform or administrative effectiveness in isolation (Sudirman, S., & Pandang, A., 2025). While prior studies have contributed valuable insights into curriculum design, leadership, and organizational processes, they frequently overlook the dynamic and reciprocal relationship between curriculum innovation and day-to-day school management practices, particularly at the primary education level (Ralebese, Jita, & Badmus, 2025). Moreover, much of the empirical evidence is situated within policy-driven or secondary and higher education contexts, leaving limited understanding of how curriculum innovation is operationalized through managerial processes such as strategic planning, human resource development, and performance evaluation in primary schools. As a result, the literature lacks an integrated analytical framework that captures how curriculum innovation functions as a managerial instrument for improving educational quality. This gap underscores the need for research that systematically examines the intersection of curriculum innovation and school management within primary education settings (Zickafoose et al., 2024).

This study advances the existing body of knowledge by offering an integrative perspective that positions curriculum innovation as a strategic driver of effective school management in primary education. Unlike previous studies that treat

curriculum reform and school management as parallel yet disconnected processes, this research conceptualizes curriculum innovation as an embedded managerial mechanism that shapes planning, leadership practices, and performance evaluation within schools. The novelty of this study lies in its comprehensive approach, which systematically links curriculum innovation to managerial processes while focusing on the primary education context, a level that remains underrepresented in empirical research. This contribution is further justified by its potential to bridge theory and practice, providing actionable insights for school leaders and policymakers seeking to implement sustainable curriculum reforms. By articulating a coherent framework for optimizing school management through curriculum innovation, this study not only enriches theoretical discourse but also addresses pressing practical challenges in improving the quality of primary education (Nguyen, H., & Van Bui, H., 2025).

2. METHODOLOGY

2.1. Research Design

The study adopted a research and development (R&D) design, which is appropriate for developing, validating, and evaluating educational models intended to improve practice (Suartama, Yasa, & Triwahyuni, 2024). This design was selected because the research aimed not only to examine existing conditions in primary education but also to develop and assess a curriculum management model that supports effective school management. The R&D approach aligns with the framework proposed by Borg and Gall, which emphasizes systematic development, testing, and refinement of educational products to ensure their practical and scientific validity.

2.2. Development Procedure

The development process followed the ten stages of the Borg and Gall model, including:
  (1) research and information collecting,
  (2) planning,
  (3) preliminary product development,
  (4) preliminary field testing,
  (5) main product revision,
  (6) main field testing,
  (7) operational product revision,
  (8) operational field testing,
  (9) final product revision, and
  (10) dissemination and implementation.
These stages were employed to ensure that the curriculum management model was grounded in

empirical needs, theoretically sound, and feasible for application in primary school contexts.

2.3. Preliminary Study and Needs Analysis

The preliminary phase focused on identifying existing conditions and challenges related to curriculum implementation and school management in primary education. A qualitative approach was employed, with data collected through interviews and classroom observations involving school principals and teachers. This phase aimed to capture insights into managerial practices, curriculum planning, and implementation constraints, which subsequently informed the design of the curriculum management model.

2.4. Product Validation

The developed curriculum management model was subjected to expert validation prior to field implementation. Experts in curriculum management and character education evaluated the model using a structured questionnaire that assessed its relevance, clarity, feasibility, and alignment with educational theory. Feedback from the experts was used to refine the model before proceeding to effectiveness testing.

2.5. Effectiveness Testing

The effectiveness of the developed model was examined using a quantitative experimental approach, employing a pretest post-test control group design. Participants were assigned to an experimental group, which implemented the developed curriculum management model, and a control group, which continued with conventional curriculum management practices. Data were collected using problem-solving tests related to students' daily behavioral attitudes, reflecting outcomes associated with curriculum implementation and school management practices.

3. DATA ANALYSIS

Data analysis involved both descriptive and inferential statistical techniques. Descriptive statistics were used to summarize central tendencies and data distribution. Inferential analysis was conducted using multiple linear regression to examine the relationship between management-related variables and innovation management outcomes. Assumption testing included normality testing using the Kolmogorov–Smirnov test, multicollinearity diagnostics through variance inflation factor (VIF) and tolerance values, and outlier detection using Mahalanobis distance. These procedures ensured the robustness and validity of

the statistical findings.

3.1. Ethical Considerations

Ethical standards in educational research were observed throughout the study. Participants were informed about the research objectives and procedures, and informed consent was obtained prior to data collection. Confidentiality and anonymity of participants were maintained.

3.2. Results

The results indicate that the data met the assumptions required for inferential statistical analysis. Descriptive statistics showed moderate to high mean values for key management-related variables, suggesting a generally positive perception of innovation-oriented practices within primary school management. Normality tests using the Kolmogorov–Smirnov statistic confirmed that the distributions did not deviate significantly from normality (p > .05). Multicollinearity diagnostics further demonstrated acceptable variance inflation factor and tolerance values, indicating no problematic correlations among predictor variables. Outlier analysis using Mahalanobis distance identified a small number of extreme cases, which were subsequently excluded to ensure model stability.

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Table1. below presents the descriptive statistics of the main predictor variables, namely Agile Leadership and Innovation Management. This table provides an overview of the central tendency (mean, median, and mode) as well as the distribution characteristics (skewness, kurtosis, and Kolmogorov–Smirnov test) to examine the normality and overall data patterns before conducting further inferential analyses.

Table 1: Descriptive Statistics on Predictor and Predicted.

	Agile Leadershp	Innovation Managemet
Mean	3.48	3.71
Medium	3.57	3.78
Mode	3.63	3.81
Skewness Coefficient	-0.27	-0.69
Kurtosis Coefficient	-0.64	0.8
Kolmogorov-Smirnov	.08,p>.05	.06,p>.05

It presents the descriptive statistics of the key variables examined in this study, namely agile leadership as the predictor variable and innovation management as the predicted variable. Overall, the results indicate that both variables demonstrate relatively high central tendency values, suggesting a generally positive perception of leadership agility and innovation management practices within the organizational context under investigation. The mean score for agile leadership is 3.48, while the mean score for innovation management is slightly higher at 3.71. These values, which are positioned above the midpoint of the measurement scale, indicate that respondents perceive both agile leadership behaviors and innovation management processes to be implemented at a moderate-to-high level. The higher mean value for innovation management suggests that innovation-related practices are perceived as more strongly established than agile leadership behaviors, potentially reflecting organizational structures that support innovation even when leadership agility varies across individuals or units.

Further examination of the median values reinforces this interpretation. The median score for agile leadership is 3.57, whereas the median score for innovation management is 3.78. The fact that the median values exceed the mean values for both variables indicates a slight clustering of responses at higher score levels, suggesting that a substantial proportion of respondents rated both constructs positively. Similarly, the mode values, which represent the most frequently occurring responses, are 3.63 for agile leadership and 3.81 for innovation management. These modal values further confirm that the dominant perceptions among respondents align with moderately strong leadership agility and innovation management practices, reinforcing the overall pattern observed in the mean and median scores.

The distribution characteristics of the data are further clarified by the skewness coefficients. The skewness value for agile leadership is −0.27,

indicating a slight negative skew, while the skewness coefficient for innovation management is −0.69, reflecting a more pronounced negative skew. Negative skewness in both variables suggests that responses are concentrated toward the higher end of the scale, with fewer respondents reporting low levels of agile leadership or innovation management. This distribution pattern supports the conclusion that the sampled organizations generally exhibit favorable conditions with respect to leadership agility and innovation-oriented management practices.

In terms of kurtosis, the coefficient for agile leadership is −0.64, indicating a relatively flatter distribution compared to a normal curve, whereas the kurtosis coefficient for innovation management is 0.80, suggesting a slightly more peaked distribution. These values indicate that while responses for agile leadership are more evenly dispersed around the mean, responses for innovation management tend to be more concentrated near the central values. Importantly, both kurtosis values fall within acceptable ranges, indicating no extreme deviation from normality

The normality of the data distributions is further supported by the Kolmogorov–Smirnov test results. The test statistics for agile leadership (.08, p > .05) and innovation management (.06, p > .05) indicate that the null hypothesis of normal distribution cannot be rejected for either variable. These findings confirm that the data meet the assumptions required for subsequent parametric analyses, such as regression modeling. Collectively, the descriptive statistics presented in Table 1 provide a robust foundation for further inferential analysis by demonstrating that the key variables are normally distributed and exhibit meaningful variation suitable for examining the relationship between agile leadership and innovation management.

Table 2. below reports the results of the multiple linear regression analysis examining how demographic factors and organizational variables, particularly Shared Responsibility and Proactivity Agility as well as Synergy Agility, predict Innovation Management within the framework of curriculum innovation-based school management. The table highlights both the Enter and Stepwise models to identify the most influential predictors.

Table 2: Multiple Linear Regression Analysis Results for Curriculum Innovation-Based Management.

Model		Predicted Variable: Innovation management				
	Predictive Variables	B	ShB	β	t	p
1 (Enter method)	(Fixed)	3.677	0.112		28.731	.000***
	Gender	-0.057	0.066	-0.054	-0.864	.388
	Age	-0.062	0.098	-0.093	-0.634	.527
	Level of Education	-0.245	0.080	-0.192	-3.065	.002**
	Seniority	0.076	0.072	0.155	1.056	.292
2 (Stepwise method)	(Fixed)	3.730	0.083		45.160	.000***
	Gender	-0.178	0.054	-0.169	-3.306	.386
	Age	-0.023	0.019	0.040	-1.129	.060
	Level of Education	-0.284	0.064	-0.022	-4.401	.080
	Seniority	-0.032	0.040	-0.012	-0.210	.714
	Shared responsibility and proactivity agility	0.482	0.009	0.601***	56.553	.000***
	Synergy Agility	0.524	0.011	0.493***	46.706	.000***
R^2=0.621 ΔR^2=0.615** **p<.01, ***p<.001						

As shown in Table 2, Shared Responsibility and Proactivity Agility (β = .601, p < .001) and Synergy Agility (β = .493, p < .001) emerge as the strongest predictors of Innovation Management, indicating that collaborative and synergistic practices play a central role in strengthening curriculum innovation-based school management.

Table 2 presents the results of the multiple linear regression analysis examining the predictors of

innovation management. Two regression models were tested to assess the explanatory power of demographic variables and agility-related leadership dimensions. In Model 1, which employed the enter method, innovation management was regressed on gender, age, level of education, and seniority. The results indicate that the model intercept was statistically significant (B = 3.677, p < .001), suggesting a strong baseline level of innovation

management independent of the included predictors. However, among the demographic variables, only the level of education emerged as a statistically significant predictor of innovation management (β = −0.192, p < .01). The negative coefficient indicates that higher levels of formal education were associated with slightly lower perceived innovation management scores. In contrast, gender (β = −0.054, p = .388), age (β = −0.093, p = .527), and seniority (β = 0.155, p = .292) did not demonstrate statistically significant effects, suggesting that these characteristics alone do not substantially explain variation in innovation management practices.

Model 2 employed a stepwise regression approach to identify the most influential predictors of innovation management. In this model, agility-related leadership dimensions — shared responsibility and proactivity agility, and synergy agility — were introduced alongside demographic variables. The intercept remained statistically significant (B = 3.730, p < .001), indicating a stable baseline effect. Notably, once agility-related variables were included, the explanatory power of the model increased substantially. The overall model accounted for 62.1% of the variance in innovation management (R^2 = 0.621), with an incremental increase in explained variance of 61.5% (ΔR^2 = 0.615, p < .01), reflecting a strong model fit.

Within Model 2, shared responsibility and proactivity agility emerged as the strongest predictor of innovation management (β = 0.601, p < .001). This finding indicates that leadership practices emphasizing collective responsibility, initiative, and proactive engagement play a central role in fostering innovation management. Similarly, synergy agility demonstrated a significant and positive effect on innovation management (β = 0.493, p < .001), highlighting the importance of collaborative dynamics and coordinated action among organizational members. The magnitude of these standardized coefficients suggests that agility-oriented leadership dimensions contribute more substantially to innovation management than demographic factors.

In contrast, demographic variables lost their explanatory relevance in Model 2. Gender (β = −0.169, p = .386), age (β = 0.040, p = .060), level of education (β = −0.022, p = .080), and seniority (β = −0.012, p = .714) were no longer statistically significant predictors. This shift indicates that the influence of individual characteristics is overshadowed when leadership agility factors are taken into account. The results suggest that innovation management is driven primarily by

organizational and leadership-related processes rather than by demographic attributes of individuals.

Overall, the regression analysis demonstrates that innovation management is strongly associated with agility-oriented leadership practices, particularly those emphasizing shared responsibility, proactivity, and synergistic collaboration. The substantial increase in explained variance from Model 1 to Model 2 underscores the critical role of leadership agility in shaping innovation management outcomes, providing a robust empirical foundation for further discussion of managerial and theoretical implications.

The effectiveness testing revealed a noticeable improvement in outcome measures for the experimental group compared to the control group following the implementation of the developed curriculum management model. Pretest–posttest comparisons showed enhanced problem-solving abilities related to students' daily behavioral attitudes, indicating that the model contributed positively to learning outcomes when integrated into school management practices.

Multiple linear regression analysis further demonstrated that management-related factors significantly predicted innovation management outcomes. Variables associated with shared responsibility, proactivity, and collaborative agility exhibited strong positive standardized coefficients and statistically significant effects (p < .001), while demographic variables such as gender, age, educational level, and seniority showed no consistent significant influence. The overall model accounted for a substantial proportion of variance in innovation management, as reflected by the coefficient of determination (R^2), indicating a robust explanatory capacity of the proposed framework.

4. DISCUSSION

The findings of this study can be interpreted as evidence that curriculum innovation functions most effectively when it is embedded within coherent school management practices. The significant predictive effects of management-related variables, particularly those associated with shared responsibility, proactive leadership, and collaborative agility, suggest that curriculum innovation is not merely a pedagogical intervention but a managerial process that shapes how schools organize, implement, and evaluate educational change. These results align with existing theories of educational management that emphasize the centrality of leadership and organizational capacity in driving instructional improvement. The observed

improvements in student-related outcomes further indicate that when curriculum innovation is systematically managed, it can translate into meaningful enhancements in learning-related behaviors. In this sense, the results reinforce prior research while extending it by empirically demonstrating how innovation-oriented management practices serve as a critical mechanism through which curriculum reforms influence the quality of primary education (Ralebese & Jita, 2025).

The results of this study contribute to educational management theory by reinforcing and extending the view that curriculum innovation should be conceptualized as an integral component of school management rather than as a stand-alone pedagogical reform. The strong explanatory power of management-related variables highlights the theoretical relevance of organizational and leadership frameworks in understanding how curriculum reforms are enacted and sustained at the primary education level. From a practical perspective, the findings underscore the importance of aligning curriculum innovation with strategic planning, human resource development, and performance evaluation within schools. For school leaders and policymakers, this implies that successful curriculum reform requires not only well-designed curricular content but also managerial capacities that foster collaboration, shared responsibility, and adaptive leadership. By empirically demonstrating the linkage between innovation-oriented management practices and improved educational outcomes, this study provides actionable insights that can inform both policy formulation and day-to-day school management practices in primary education contexts (Isabirye et al., 2025).

Several limitations should be acknowledged when interpreting the findings of this study. First, the implementation of the developed curriculum management model was conducted within a specific educational context and time frame, which may constrain the generalizability of the results to other primary school settings. Second, although the study employed both qualitative and quantitative approaches, some outcome measures relied on self-reported instruments and behavioral assessments, which may be subject to response bias. Third, the experimental design focused on a limited set of management-related variables, potentially overlooking other contextual factors such as school culture, policy environment, and community engagement that may also influence the effectiveness of curriculum innovation. These limitations suggest

that the findings should be interpreted with caution and highlight the need for further investigation to validate and extend the applicability of the proposed model.

Building on the findings and acknowledged limitations of this study, several directions for future research are proposed. Longitudinal studies are needed to examine the sustainability and long-term effects of curriculum innovation when embedded within school management practices, particularly in relation to student learning outcomes and organizational change (Lathigara et al., 2025). Future research could also adopt mixed-methods designs to capture deeper contextual insights into how school leaders and teachers negotiate curriculum innovation in diverse educational settings. In addition, expanding the scope of inquiry to include variables such as school culture, policy alignment, and community involvement would provide a more comprehensive understanding of the factors that mediate the effectiveness of curriculum innovation. Replicating this research across different regions and educational systems would further strengthen the external validity of the proposed framework and contribute to the development of more context-sensitive models of school management in primary education.

The findings of this study carry important social and ethical implications for the implementation of curriculum innovation in primary education. From a social perspective, optimizing school management through curriculum innovation has the potential to enhance educational quality more equitably by strengthening institutional capacity across schools, thereby contributing to improved learning opportunities for diverse student populations. However, ethical considerations arise in ensuring that curriculum innovation is implemented in an inclusive and context-sensitive manner, avoiding practices that may disproportionately benefit certain groups while marginalizing others (Olszak, 2025). School leaders and policymakers bear a responsibility to ensure transparency, fairness, and professional support for teachers during periods of curricular change (Smith & Desimone, 2025). Moreover, ethical implementation requires safeguarding the rights and well-being of students by aligning innovation efforts with pedagogical integrity and developmental appropriateness (Tümkaya, 2026). These considerations underscore the need for curriculum innovation to be guided not only by efficiency and performance outcomes but also by broader social responsibility and ethical accountability within primary education systems.

4.1. Limitations and Future Research Directions

Despite the contributions of this study, several limitations should be acknowledged. First, the sample was drawn from a limited number of primary schools within a specific contextual setting. This may constrain the generalizability of the findings to other educational systems with different managerial cultures and curriculum policies. Consequently, the results should be interpreted as context-sensitive rather than universally representative.

Second, the study relied primarily on self-reported questionnaire data to measure constructs such as agile leadership, innovation management, shared responsibility, and synergy agility. Although reliability and validity were established, self-report measures may be subject to social desirability bias, which could influence respondents' evaluations and potentially inflate relationships among variables.

Third, the research design employed a relatively short implementation period of curriculum innovation. This limits the ability to capture long-term effects of curriculum management practices on students' problem-solving development. The observed impacts therefore reflect short-term dynamics rather than sustained institutional change.

Future research is encouraged to involve larger and more diverse samples across different regions and school types to enhance external validity. Longitudinal designs are also recommended to examine how curriculum innovation-based management influences student outcomes over time. In addition, future studies may integrate qualitative approaches, such as interviews and classroom observations, to deepen understanding of how leadership agility and innovation management are enacted in daily school practices.

5. CONCLUSION

This study demonstrates that curriculum innovation can serve as an effective managerial instrument when systematically embedded within school management practices at the primary education level. The findings provide empirical evidence that innovation-oriented management characterized by shared responsibility, proactive leadership, and collaborative practices significantly contributes to improved educational outcomes, particularly in relation to students' behavioral and problem-solving competencies. By employing a research and development approach, this study not only validates the effectiveness of the proposed curriculum management model but also bridges the gap between theoretical frameworks of educational management and practical implementation in schools. Overall, the results underscore the importance of aligning curriculum reform with coherent management strategies to achieve sustainable improvements in the quality of primary education.

5.1. Recommendations

Based on the findings of this study, several recommendations are proposed. For practitioners, school leaders are encouraged to adopt curriculum innovation as an integral component of strategic school management, ensuring that curriculum planning, implementation, and evaluation are closely aligned with leadership practices and organizational capacity. Policymakers may consider supporting professional development programs that strengthen managerial competencies related to innovation management in primary education. For researchers, future studies are recommended to examine the long-term impact of curriculum innovation through longitudinal designs and to explore its application across diverse educational contexts. Additionally, incorporating broader contextual variables such as school culture, policy environments, and community engagement may provide deeper insights into the mechanisms through which curriculum innovation influences educational quality. These recommendations aim to support the continued advancement of theory, practice, and policy in primary education management.

REFERENCES

Isabirye, A. K., Moloi, K. C., Lebelo, R. S., & Khan, S. (2025). Cultivating Creativity and Innovation in the School Curriculum for the 21st Century : Opportunities and Challenges. Journal of Ecohumanism, 6798, 334–348. https://doi.org/10.62754/joe.v4i3.6647

Kumar, M., Kaur, G., & Singh, S. (2025). Navigating curriculum reform : Approaches and challenges of academic leaders in Malaysian higher education. Edelweiss Applied Science and Technology, 9(8), 976–988. https://doi.org/10.55214/2576-8484.v9i8.9517

Lathigara, A., Tanna, P., Bhatt, N., & Shingadiya, C. (2025). Enhancing Learning Outcomes Through ABC (Arena Blended Connected) Curriculum Design : A Case Study of RK University. Journal of Engineering Education Transformations, (38), 224–232.

https://doi.org/10.16920/jeet/2025/v38is2/25027

Nguyen, Hien Ngoc., Van Bui, H. (2025). The CDIO approach in primary teacher education : evaluating the urgency and feasibility of management solutions. Multidisciplinary Science Journal. https://doi.org/10.31893/multiscience.2025636

Olszak, C. M. (2025). The Role of Higher Education Institutions in Shaping Sustainability and Digital Ethics in the Era of Industry 5 . 0 : Universities as Incubators of Future Skills. Sustainability, 0, 1–23. https://doi.org/10.3390/su17198530

Ralebese, M. D., & Jita, L. (2025). Examining Primary School Principals ' Instructional Leadership Practices : A Case Study on Curriculum Reform and Implementation. Education Sciences, 1–15. https://doi.org/10.3390/educsci15010070

Ralebese, M. D., Jita, L. C., & Badmus, O. T. (2025). Perceptions and practices of principals : examining instructional leadership for curriculum reform. Frontiers in Education, 12(May), 1–11. https://doi.org/10.3389/feduc.2025.1591106

Sliwka, A., Klopsch, B., Beigel, J., & Tung, L. (2026). Transformational leadership for deeper learning : shaping innovative school practices for enhanced learning. Journal of Educational Administration, 62(1), 103–121. https://doi.org/10.1108/JEA-03-2023-0049

Smith, E. P., & Desimone, L. M. (2025). Coach and teacher alignment in the context of educational change. Journal of Educational Change, 397–423. https://doi.org/10.1007/s10833-025-09528-1

Suartama, I. K., Yasa, I. N., & Triwahyuni, E. (2024). Instructional Design Models for Pervasive Learning Environment : Bridging Formal and Informal Learning in Collaborative Social Learning. Education Sciences. https://doi.org/10.3390/educsci14121405

Sudirman, S., Pandang, A. (2025). Implementation of Deep Learning Pedagogy in Curriculum Reform : Primary School : T eachers ' Perspective s in Indonesia. International Journal of Learning, Teaching and Educational Research, 24(11), 618–636. https://doi.org/10.26803/ijlter.24.11.29

Tümkaya, S. (2026). Navigating the ethical landscape of AI integration in education : Balancing innovation and responsibility Özlem Azman. F1000Research, 1–21. https://doi.org/10.12688/f1000research.160011.1

Wang, Z. (2024). Assessing the development of primary English education based on CIPP model — a case study from primary schools in China. Frontiers in Psychology, (June). https://doi.org/10.3389/fpsyg.2024.1273860

Winarti, S. M., & Ahyani, N. (2025). The Influence of Independent Curriculum and Classroom Management on Elementary Students ' Learning Outcomes in Ogan Ilir. International Journal of Educational Development. https://doi.org/10.61132/ijed.v2i3.307

Worden, M. K., & Bray, M. J. (2025). A theory of change approach to curricular revision : filling a curricular gap identified through curriculum mapping. BMC Medical Education. https://doi.org/10.1186/s12909-025-07100-2

Xiao, S., Sheng, J., & Zhang, G. (2025). Rising Tides of Knowledge : Exploring China ' s Higher Education Landscape and Human Capital Growth. Journal of the Knowledge Economy, 4392–4421. https://doi.org/10.1007/s13132-024-02102-9

Zickafoose, A., Ilesanmi, O., Diaz-manrique, M., Adeyemi, A. E., Walumbe, B., Strong, R., … Dooley, K. (2024). Barriers and Challenges Affecting Quality Education (Sustainable Development Goal # 4) in Sub-Saharan Africa by 2030. Sustainability. https://doi.org/10.3390/su16072657