



EFFECTIVE SCHOOL MANAGEMENT AS DETERMINANTS IN ORGANIZATIONAL INNOVATION ON 21ST-CENTURY LEADERSHIP

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ABSTRACT

One major challenge in educational institutions today is the need for school heads to effectively demonstrate 21st-century leadership skills amid rapidly changing educational demands, technological advancements, and organizational complexities. Effective school management plays a critical role in fostering organizational innovation and developing 21st-century leadership skills among school heads. This study aimed to determine the significance of effective school management and organizational innovation in predicting 21st-century leadership. Using a descriptive correlational design involving 150 school heads selected through random sampling, it was revealed that effective school management and organizational innovation positively influence 21st-century leadership but not significantly. The results suggest that other contextual factors, such as school culture and professional development, may contribute more to leadership effectiveness. It is recommended that similar studies be replicated in diverse educational settings to validate these findings and explore additional variables affecting 21st-century leadership.

KEYWORDS: Effective School Management, Organizational Innovation, 21st-Century Leadership, School Heads, Philippines

1. INTRODUCTION

Leadership in the 21st century faces numerous challenges, including unclear leadership styles, misuse of authority, and ineffective school management, which can lead to poor performance and slow institutional progress (Lawan et al., 2020). School leaders often lack the necessary skills to provide clear instructional guidance, manage staff effectively, and foster a collaborative learning environment, resulting in discipline issues and low motivation among teachers and learners (Klinchai et al., 2022).

In the United States, Burkett (2023) highlights that poor professionalism, weak communication, and inadequate ethical practices hinder effective school leadership. Similarly, in Kenya, school principals face insufficient training and limited resources, affecting their ability to maintain quality education (Ngare, 2024). In the Philippines, Bastasa and Guhao (2022) observed that school leaders often encounter conflicting demands from parents, policymakers, and communities, complicating decision-making. In Cavite, Morales (2025) noted that low teacher motivation, ineffective instruction, and limited integration of technology hinder effective leadership in schools.

Leadership education is crucial for equipping school leaders with the competencies necessary to manage contemporary educational challenges. Developing competent leaders is fundamentally an educational issue, requiring structured programs that foster critical thinking, innovation, and collaborative problem-solving. Despite its recognized importance, the ways in which school leaders acquire and apply these skills in diverse, 21st-century contexts remain underexplored.

1.1 Rationale

The study aimed to assess the relationship between effective school management and organizational innovation on 21st-century leadership. Effective school management and organizational innovation are pivotal in ensuring institutional performance and preparing educators for dynamic educational demands. The findings of these studies were beneficial to the Department of Education where the data can inform professional development programs and leadership training for school heads and teachers.

For School administrators, as it enables evidence-based decision-making on resource allocation, staff development, and policy implementation.

In conclusion, future researchers may use this study as reference data in conducting new research or in testing the validity of other related findings by providing unique findings and program framework, examining leadership and innovation in educational contexts.

1.2. Statement of the Problem

This study aimed to determine the significance of effective school management and organizational innovation as determinants of 21st-century leadership. Specifically, it sought to answer the following questions:

1. What are the levels of effective school management in terms of creating a vision, developing followership, implementing the vision, and team playing; organizational innovation in terms of information acquisition, information distribution, and information interpretation; and 21st-century leadership in terms of learning skills, literacy skills, life skills, and technology skills?
2. What is the significance of the relationship between effective school management and organizational innovation on 21st-century leadership?



3. What is the significance of the combined influence of effective school management and organizational innovation on 21st-century leadership?

1.3. Hypotheses

This study was tested at a 0.05 level of significance.

HO1: There is no significant correlation between effective school management and organizational innovation on 21st-century leadership.

HO2: There is no significant individual or combined influence of effective school management and organizational innovation on 21st-century leadership.

1.4. Theoretical/Conceptual Framework

This study is anchored on transformational leadership theory, which emphasizes inspiring and motivating followers to exceed expectations, fostering innovation, and developing future leaders (Bass, 2015). In this study, effective school management represents exceeding effectiveness, while organizational innovation represents fostering innovation, and lastly 21st-century leadership represents developing future leaders.

The conceptual framework is illustrated in Figure 1, showing the direct influence of effective school management and organizational innovation on 21st-century leadership.

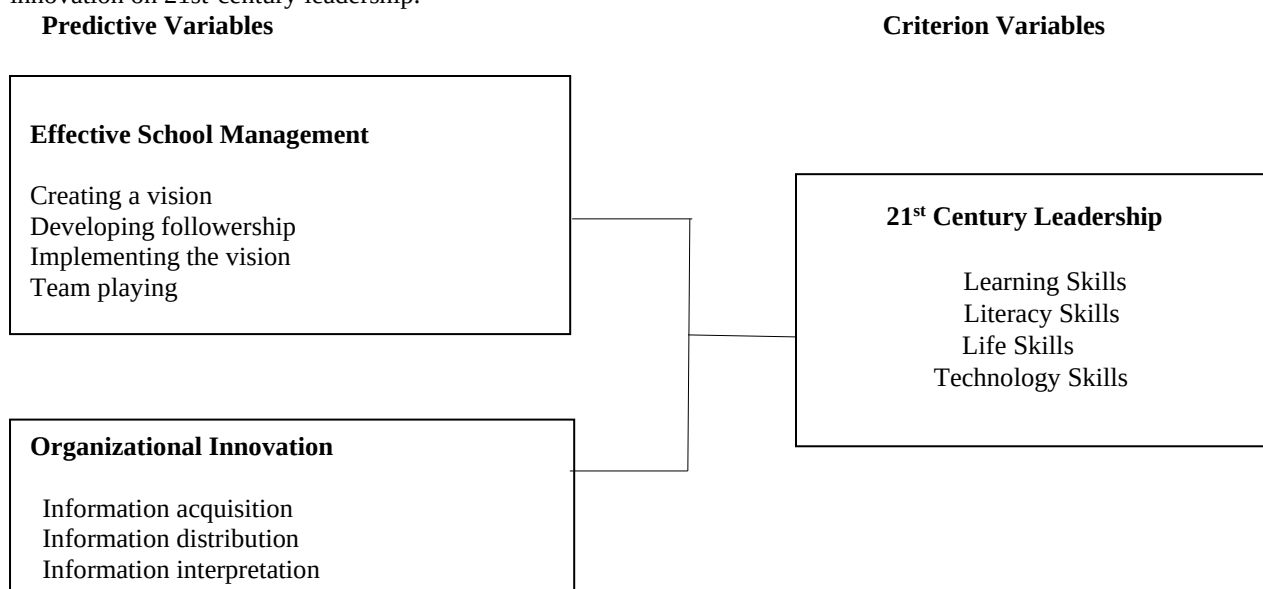


Figure 1. Conceptual Framework of the Study

2. METHODOLOGY

2.1 Research Design

The descriptive non-experimental method using the correlational technique was used in the study. The plan and structure of this research delivered a reliable answer to a research question. Its purpose was to describe obtainable characteristics such as attitudes, behavior, and relationships (Siedlecki, 2020). Non-experimental research methods, such as correlational research, help explain and forecast the link between variables (Seeram, 2019).

2.2 Research Locale

The study was conducted in Baganga, Davao Oriental, focusing on school heads from multiple public and private schools across the municipality. There are 18 barangays in Baganga, however, the study only focused on ten barangays were far flung areas are not included. The respondents were selected through random sampling from different strata of the population used in the study. They were expected to participate in the study because its population was heterogeneous.

2.3. Research Respondents

The respondents were 150 school heads randomly selected from different schools in Baganga. Participants were at least 3 years experienced school heads with diverse skills in handling schools in school year 2026-2027. The respondents were selected through random sampling from different strata who responded to a survey questionnaire that focused on effective school management and organizational innovation as determinants on 21st-century leadership.

2.4 Research Instrument

. A survey questionnaire was adapted from validated studies on school management, organizational innovation, and 21st-century leadership. It consisted of 56 items divided as follows: Effective School Management (Independent Variable) – 16 items: Creating



a vision (4), Developing followership (4), Implementing the vision (4), Team playing (4) Organizational Innovation (Independent Variable) – 12 items: Information acquisition (4), Information distribution (4), Information interpretation (4) 21st-Century Leadership (Dependent Variable) – 28 items: Learning skills (7), Literacy skills (7), Life skills (7), Technology skills (7)

3. RESULTS

This chapter presents the findings and narrative presentation based on the data gathered. The presentation was organized based on the sequence of the problem in the first chapter. Contained in this chapter are descriptive analyses of the data of the variables involved in the study, the correlation analysis between predictive and criterion variables, and the regression analysis of the predictive variables on the criterion variable.

Table 1: Descriptive Analysis

Variables	N	Standard Deviation	Mean	Descriptive Level
1. Effective School Management	150	.262	4.38	Very High
1.1 Creating a Vision		.251	4.40	Very High
1.2 Developing Followership		.268	4.36	Very High
1.3 Implementing Vision		.276	4.35	Very High
1.4 Team Playing		.249	4.39	Very High
2. Organizational Innovation	150	.288	4.33	Very High
2.1 Information Acquisition		.281	4.34	Very High
2.2 Information Distribution		.282	4.32	Very High
2.3 Information Interpretation		.291	4.33	Very High
3. 21st Century Leadership	150	.305	4.37	Very High
3.1 Learning Skills		.298	4.35	Very High
3.2 Literacy Skills		.312	4.36	Very High
3.3 Life Skills		.306	4.38	Very High
3.4 Technology Skills		.306	4.39	Very High

Table 1 is a descriptive table. It presents the levels of effective school management and organizational innovation on 21st-century leadership. Effective school management was indicated by creating a vision, developing followership, implementing the vision, and team playing; organizational innovation was indicated by information acquisition, information distribution, and information interpretation; while 21st-century leadership was indicated by learning skills, literacy skills, life skills, and technology skills.

Effective school management obtained an overall standard deviation of 0.262 with a mean of 4.38, which is described as very high. Among its indicators, creating a vision and team playing registered the highest mean scores, indicating that teachers strongly manifest clarity of direction, collaboration, and shared responsibility within their schools. This translates to effective school management being excellent, as demonstrated by the teachers.

Similarly, the data reflect a very high level of organizational innovation, with an overall standard deviation of 0.288 and a mean score of 4.33. All indicators information acquisition, information distribution, and information interpretation obtained very high descriptive levels. This implies that teachers are highly engaged in gathering, sharing, and making sense of information to support innovative practices within their schools, indicating that organizational innovation is excellent as manifested by the respondents.

On the other hand, the level of 21st-century leadership among teachers yielded an overall standard deviation of 0.305 and a mean score of 4.37, described as very high. All indicators learning skills, literacy skills, life skills, and technology skills also registered very high results. This finding suggests that teachers demonstrate strong leadership competencies necessary to meet contemporary educational demands, translating to excellent 21st-century leadership as manifested by the teachers.



Table 2. Table of Correlation

	21st-Century Leadership			
	R	p-value	Decision on H_0 @ 0.05 level of significance	Interpretation
Effective School Management	0.142	0.078	Failed Reject H_0	Not Significant
Organizational Innovation	0.157	0.054	Failed Reject H_0	Not Significant

Table 2 shows the correlation analysis between effective school management and organizational innovation on 21st-century leadership among teachers, highlighting the relationships between these variables. Effective school management and organizational innovation were treated as the independent variables, while 21st-century leadership was the dependent variable. The correlation between effective school management and 21st-century leadership revealed a p-value of 0.078, which is higher than the 0.05 level of significance. This led to the failure to reject the null hypothesis, indicating that effective school management and 21st-century leadership are not significantly correlated, despite showing a weak positive relationship ($r = 0.142$). This finding suggests that while effective school management practices may contribute positively to leadership development, they do not strongly or independently determine 21st-century leadership competencies among teachers. Other factors such as professional development opportunities, institutional support, school culture, and individual motivation may play a more substantial role in shaping leadership skills.

Similarly, the correlation between organizational innovation and 21st-century leadership yielded a p-value of 0.054, which also exceeds the 0.05 level of significance, resulting in the failure to reject the null hypothesis. The correlation coefficient ($r = 0.157$) indicates a weak positive relationship between organizational innovation and 21st-century leadership. This implies that although innovative practices related to information acquisition, distribution, and interpretation are present in schools, they alone are insufficient to significantly influence teachers' leadership skills. This further suggests that leadership development in the 21st century is multifaceted and may be more strongly influenced by continuous training, collaborative practices, policy support, and real-world leadership experiences rather than innovation initiatives alone.

Table 3. Regression Table

Independent Variables	21st-Century Leadership						
	Unstandardized Coefficients		Standardized Coefficients			Decision on H_0	Interpretation
	B	Std. Error	Beta	t	Sig.		
Constant	3.122	0.579		5.389	0.000		
Effective School Management	0.135	0.101	0.108	1.336	0.183	Failed to Reject H_0	Not Significant
Organizational Innovation	0.158	0.107	0.123	1.519	0.131	Failed to reject H_0	Not significant

$R = 0.188$; $R^2 = 0.035$; $F\text{-value} = 2.690$; $p\text{-value} = 0.071$

Table 3 shows the results of the regression analysis and examines the effect of effective school management and organizational innovation on 21st-century leadership among teachers. The constant of the regression equation is 3.122, indicating that school heads already exhibit a certain level of 21st-century leadership even in the absence of effective school management and organizational innovation. This suggests that other factors contribute to leadership development. The constant is statistically significant ($p = 0.000$), reinforcing the idea that baseline leadership competencies exist regardless of the independent variables included in the model.

With an effective school management coefficient of 0.135, it can be inferred that 21st-century leadership increases by 0.135 units for every one-unit increase in effective school management, assuming that other variables remain constant. However, the corresponding p-value of 0.183 is higher than the 0.05 level of significance, leading to the failure to reject the null hypothesis. This indicates that although effective school management has a positive influence on 21st-century leadership, its effect is not statistically significant.

Likewise, the coefficient for organizational innovation is 0.158, which means that a 0.158-unit increase in 21st-century leadership is expected for every one-unit increase in organizational innovation. However, the p-value of 0.131 also exceeds the 0.05 significance level, resulting in the failure to reject the null hypothesis. This implies that while organizational innovation is positively associated with 21st-century leadership, it does not significantly predict leadership outcomes among school heads.

The regression model yielded an R-value of 0.188, indicating a weak positive relationship between effective school management, organizational innovation, and 21st-century leadership. The R^2 value of 0.035 reveals that only 3.5% of the variance in 21st-century leadership can be explained by effective school management and organizational innovation, suggesting that the remaining 96.5% is influenced by other variables not included in the model.



Furthermore, the combined influence of effective school management and organizational innovation on 21st-century leadership was not statistically significant, as reflected by an F-value of 2.690 and a p-value of 0.071. These findings indicate that 21st-century leadership among school heads cannot be predicted solely by effective school management and organizational innovation. This underscores the need to adopt more comprehensive approaches that consider additional factors such as professional development, school culture, individual motivation, and institutional support in understanding and enhancing leadership development in educational settings.

Summary of Findings

The findings of the study are as follows:

1. The levels of effective school management, organizational innovation, and 21st-century leadership among school heads in Baganga, Davao Oriental is all excellent.
2. The effective school management and organizational innovation are not significantly correlated with 21st-century leadership among teachers.
3. The 3.5% combined influence of effective school management and organizational innovation on 21st-century leadership is not significant.

4. DISCUSSION

This chapter contains the discussions, conclusion based on findings, and recommendations based on the conclusion of the study.

Descriptive Analysis

The findings presented in the earlier chapter regarding the very high levels of effective school management among school heads are not congruent with several international studies that reported significant links between management effectiveness and leadership outcomes. For instance, the study of Araujo et al. (2023), which examined school leadership practices in Latin American public schools, revealed that strong managerial competencies were significantly associated with improved instructional leadership and organizational performance. Similarly, Hallinger and Wang (2021) emphasized that effective school management practices particularly vision-building and collaborative leadership are strong predictors of leadership effectiveness. The present study, however, indicates that despite excellent management practices, their influence on 21st-century leadership is not statistically significant, suggesting contextual differences in leadership dynamics among school heads in Baganga, Davao Oriental.

The results likewise do not fully support the findings of OECD (2020), which highlighted that schools with strong managerial leadership tend to demonstrate higher levels of innovation and adaptive leadership competencies. In contrast, while organizational innovation in this study was rated very high, it did not significantly predict 21st-century leadership. This divergence implies that innovation practices alone, such as information acquisition and distribution, may not automatically translate into leadership competencies without structured leadership development mechanisms.

On the other hand, the very high level of organizational innovation observed in this study aligns with the findings of Fullan (2021), who argued that schools are increasingly becoming learning organizations that value collaboration, shared knowledge, and continuous improvement. Likewise, Zhang et al. (2022) found that school heads' engagement in organizational learning processes enhances institutional adaptability and openness to change. However, unlike these studies, the present findings suggest that innovation practices do not independently strengthen school heads' leadership skills, indicating a possible gap between innovation engagement and leadership enactment.

The results further corroborate the study of Ng and Tan (2023), who reported that although schools demonstrate high levels of organizational innovation, leadership development often remains dependent on external training, mentoring, and policy support. This reinforces the idea that innovation must be intentionally aligned with leadership capacity-building initiatives to produce measurable leadership outcomes.

Meanwhile, the very high level of 21st-century leadership among school heads is consistent with the findings of Trilling and Fadel (2020), who emphasized that modern school leaders increasingly possess competencies in learning, literacy, life, and technology skills. Similarly, Voogt et al. (2021) found that school heads globally are becoming more adept at integrating digital tools and collaborative practices into instruction, reflecting strong 21st-century leadership attributes. These findings suggest that school heads in Baganga are well-equipped with contemporary leadership competencies despite the limited predictive influence of management and innovation variables.

However, the findings contradict the study of Leithwood et al. (2020), which asserted that effective school management is a primary driver of leadership capacity across educational systems. The lack of significant influence in the present study may be attributed to contextual factors such as standardized policies, hierarchical decision-making structures, or limited autonomy among school heads, which may constrain the translation of management practices into leadership behaviors.

Additionally, the results echo the conclusions of Day et al. (2022), who emphasized that leadership is multifaceted and shaped not only by school management and innovation but also by professional identity, motivation, and institutional culture. This suggests



that leadership development among school heads requires a holistic approach that goes beyond managerial efficiency and organizational innovation.

Overall, the descriptive findings indicate that while teachers demonstrate excellent levels of effective school management practices, organizational innovation, and 21st-century leadership, these strengths do not necessarily operate in a linear or predictive manner. This supports the view of Hargreaves and O'Connor (2021) that leadership in contemporary education is complex, context-bound, and influenced by multiple interacting factors.

Correlation Analysis

Table 2 presents the correlation coefficients indicating the relationship between effective school management, organizational innovation, and 21st-century leadership among school heads. The analysis showed a weak positive relationship between effective school management and 21st-century leadership ($r = 0.142$) with a p-value of 0.078, which is above the 0.05 significance level. Hence, the relationship is not statistically significant. This result suggests that while effective school management practices such as creating vision, developing followership, and implementing shared goals may be associated with leadership competencies, they do not, on their own, strongly predict leadership outcomes among school heads. This finding supports research by Nguyen and Le (2023), who noted that managerial practices within schools often show positive but non-significant associations with leadership outcomes unless combined with structured professional learning and reflective practice.

Similarly, the correlation between organizational innovation and 21st-century leadership also revealed a weak positive relationship ($r = 0.157$) with a p-value of 0.054, which again exceeds the 0.05 significance threshold. This indicates that organizational innovation in terms of information acquisition, distribution, and interpretation is not a significant predictor of 21st-century leadership by itself. Al-Khateeb and Qablan (2024) found comparable results in their study, reporting that innovation practices within educational institutions did not significantly correlate with teacher leadership competence unless supported by contextual enabling structures such as incentives, leadership pathways, and collaborative networks.

The non-significant correlations in this study align with findings by Jenkins and Kimmons (2021), who argued that while innovation and management practices are vital for organizational functioning, their direct link to leadership competencies is often mediated by beliefs, support mechanisms, and ongoing professional development. Furthermore, Mosha and Mkumbo (2022) suggested that contextual constraints such as resource availability, workload pressures, and institutional culture can weaken the observable effects of innovation and management on leadership outcomes.

Taken together, the correlation results indicate that although effective school management and organizational innovation are positively related to 21st-century leadership, these relationships are not statistically significant in this context. This underscores the likelihood that leadership competencies among teachers are shaped by multiple intersecting factors including professional growth structures, institutional supports, and context-specific practices that extend beyond the individual effects of management and innovation alone.

Regression Analysis

Table 3 shows the results of the regression analysis and investigates the effect of effective school management and organizational innovation on 21st-century leadership among school heads. The constant of the regression equation indicates that 21st-century leadership still manifests even without the influence of effective school management and organizational innovation, suggesting that other factors such as individual professional development, school culture, or external support mechanisms also influence leadership outcomes. This aligns with research by Nguyen and Bui (2023), who found that baseline leadership capacity may exist due to intrinsic motivation and prior experiences, independent of formal management structures.

With an effective school management coefficient of 0.135, it can be inferred that 21st-century leadership increases by 0.135 units for every one-unit increase in effective school management practices, holding other variables constant. However, the p-value of 0.183 exceeds the conventional 0.05 level of significance, leading to failure to reject the null hypothesis. This indicates that although school management practices have a positive direction of influence, they do not significantly predict 21st-century leadership competencies. On the other hand, Carter and Fitzgerald (2021) observed similar patterns, reporting that management practices often produce positive trends in leadership outcomes but do not reach statistical significance unless supported by intentional leadership development programs and professional learning communities.

Likewise, the coefficient for organizational innovation (0.158) suggests that 21st-century leadership is expected to increase by 0.158 units with each additional unit of innovation practices. Yet, the p-value of 0.131 also exceeds the significance threshold of 0.05, indicating that organizational innovation by itself is not a significant predictor of leadership outcomes. This finding is supported by research from Rait and Amor (2025), who reported that innovation strategies may improve institutional empowerment and teacher growth descriptively but often do not translate into statistically significant changes in leadership measures unless innovation is closely aligned with structured leadership frameworks and school heads support systems.

The model's R-value of 0.188 reflects a weak positive relationship between the predictors and 21st-century leadership. The R^2 value of 0.035 indicates that only 3.5% of the variance in 21st-century leadership can be explained by effective school management and organizational innovation. This suggests that 96.5% of the variance is likely influenced by other factors not included in this model such as professional development opportunities, leader-teacher trust dynamics, and contextual policies which is consistent with the



arguments of Ims and O'Connor (2022) who emphasize that educational leadership outcomes are inherently multifaceted and shaped by broader organizational and contextual influences.

Furthermore, the combined influence of effective school management and organizational innovation was not statistically significant ($F = 2.690$, $p = 0.071$), indicating that these variables together do not significantly predict 21st-century leadership. This finding echoes the conclusions of Esguerra and Quinito (2025), who noted that leadership management practices may have descriptive importance but fail to achieve significance in predicting teacher performance outcomes without integrated strategies that build leadership capacity.

Overall, the regression analysis suggests that while both effective school management and organizational innovation exert positive influences on 21st-century leadership, their effects are not statistically significant in this context. This underscores the need for comprehensive leadership development programs, supportive school cultures, and ongoing professional learning that extend beyond management and innovation practices alone.

CONCLUSION

The study concludes that while school heads in Baganga exhibit very high levels of effective school management, organizational innovation, and 21st-century leadership, these predictors are not significant determinants of leadership skills. Transformational Leadership Theory (Bass, 2015) is only partially supported, as other contextual and institutional factors may play a stronger role in shaping 21st-century leadership.

Recommendations

Based on the findings of this study, it is recommended that school heads prioritize comprehensive professional development programs to strengthen their 21st-century leadership competencies. While effective school management and organizational innovation showed positive but non-significant influences, this suggests that leadership skills are shaped by multiple factors beyond management practices alone. School heads should engage in structured leadership training, mentorship programs, and collaborative professional learning communities to enhance their ability to implement innovative strategies within their schools. Additionally, integrating technology-enhanced management tools and participatory decision-making frameworks can help bridge the gap between innovation initiatives and actual leadership outcomes, fostering a culture of shared responsibility and adaptive problem-solving among staff and stakeholders. Education policymakers and governing bodies should also provide supportive institutional policies, resources, and incentives that enable school heads to experiment with new management and organizational approaches while maintaining guidance and accountability. Future research is encouraged to examine mediating factors such as school climate, staff motivation, and socio-cultural influences that may amplify the impact of school management and organizational innovation on leadership effectiveness. By adopting these strategies, school heads can develop into leaders who are not only effective managers but also innovative, resilient, and equipped to navigate the challenges of 21st-century education.

REFERENCES

1. Allen, K. E., Bordas, J., Hickman, G. R., Matusak, L. R., Sorenson, G. J., & Whitmire, K.J. (2010). *Leadership in the 21st century. Leading organizations: Perspectives for a new era*, 245-253.
2. Al-Khateeb, M. A., & Qablan, A. (2024). *Innovation practices and teacher leadership competence in Middle Eastern educational institutions. Journal of Educational Innovation*, 12(1), 45–62.
3. Araujo, A., Flores, M. A., & Torres, N. (2023). *School management practices and leadership effectiveness in public education systems. Educational Management Administration & Leadership*, 51(4), 612–629.
4. Bastasa, J.L., & Guhao, E. S. Jr. (2022). *Principal leadership, political skills and teacher empowerment: A path model analysis on school climate among public schools. European Journal of Education Studies*, 9(12), 94–112. <https://doi.org/10.46827/ejes.v9i12.4650>
5. Bass, B. (2015). *Transformational leadership theory. In Organizational Behavior 1* (pp.361-385). Routledge.
6. Burkett, J. (2023). *Ineffective school leadership: Teachers weigh-in. Journal of Educational Issues*, 9(2), 248–268. <https://doi.org/10.5296/jei.v9i2.21143>
7. Carter, D., & Fitzgerald, J. (2021). *Management practices and teacher leadership: Trends and implications for educational leadership development. Journal of Educational Administration Research*, 13(2), 145–162.
8. Day, C., Gu, Q., & Sammons, P. (2022). *Teacher leadership and school improvement: Linking leadership capacity and professional identity. Teaching and Teacher Education*, 110, 103583.
9. De Castro, G. B., & Jimenez, E. C. (2022). *Influence of School Principal's Attributes and 21st-Century Leadership Skills on Teachers' Performance. Journal of Humanities and Social Sciences*, 4(2), 52–63.
10. Eslit, E., & Michael, S. (2025). *21st-century skills assessment questionnaire. ResearchGate*. <https://doi.org/10.13140/RG.2.2.15100.65927>
11. Esguerra, J. T., & Quinito, M. A. (2025). *The effectiveness of teachers' professional development and school leadership management in Basud District. TIJER International Journal*, 12(10), 112–130.
12. Fullan, M. (2021). *Leading in a culture of change* (2nd ed.). Jossey-Bass.
13. Hallinger, P., & Wang, W. C. (2021). *Assessing instructional leadership with a validated instrument: Global perspectives. Educational Management Administration & Leadership*, 49(2), 193–210.
14. Hargreaves, A., & O'Connor, M. T. (2021). *Leading collaboratively: Professional capital and school improvement. Journal of Educational Change*, 22(4), 565–589.



15. Jenkins, R., & Kimmons, R. (2021). *Linking innovation and teacher leadership: A multi-context analysis. Leadership and Policy in Schools*, 20(6), 775–793.
16. Klinchai, Y., Chanchaiy Poolsuk, P., & Phramangsang, N. (2022). *The 21st-Century Ethical Leadership Development Model of School Administrators Under the Kamphaeng Phet Elementary Education Service Area Office. Journal of Graduate Research*, 13(1), 123–137.
17. Lawan, A., Jacob, O. N., Gregory, D., & Lawan, A. (2020). *Administration of public educational institutions in Nigeria: problem and suggestion. European Scholar Journal*, 1(3), 6–13.
18. Leithwood, K., Harris, A., & Hopkins, D. (2020). *Seven strong claims about successful school leadership revisited. School Leadership & Management*, 40(1), 5–22.
19. Ims, R., & O'Connor, M. T. (2022). *Leadership outcomes and contextual factors in education: A comprehensive review. Educational Leadership Review*, 24(3), 233–251.
20. Mosha, H. J., & Mkumbo, K. (2022). *Factors influencing teacher leadership in East African secondary schools. Education Research Journal*, 37(4), 348–363.
21. Ng, P. T., & Tan, C. (2023). *Organizational learning and innovation in schools: Implications for leadership development. Educational Research for Policy and Practice*, 22(2), 137–152.
22. Ngare, R. (2024). *The impact of head-teachers' leadership on quality management in early childhood education centres: A study from Kenya. Global Journal of Educational Research and Policy*, 12(4), 55–67.
23. Nguyen, P. T., & Le, H. T. (2023). *School management practices and professional learning: A mixed-methods study. Educational Management Review*, 15(3), 290–310.
24. Nguyen, L. H., & Bui, T. T. (2023). *Baseline teacher leadership capacity and intrinsic motivation: Evidence from Southeast Asian schools. International Journal of Leadership in Education*, 26(4), 454–472.
25. Northouse, P. G. (2018). *Leadership skills questionnaire. In Leadership: Theory and practice (8th ed., pp. 67–69). SAGE Publications.*
26. OECD. (2020). *Improving school leadership: Policy and practice. OECD Publishing.*
27. Partido, K. P., Bohayo, C. P., Oquialda, E., Tabayag, M. K., & Bradecina, J. B. (2023). *The influence of principal leadership on school improvement in a Philippine public secondary school. Multidisciplinary International Journal of Research and Outcomes*, 2(4), 45–57.
28. Rabbani, S. *QUESTIONNAIRE: IMPACT OF ORGANIZATIONAL LEARNING AND INNOVATIONS ON PERFORMANCE A. Organizational learning.*
29. Rait, E. N., & Amor, M. M. (2025). *Outcomes-based leadership strategies for empowering educators and enhancing teacher development in 21st-century classrooms. International Journal of Research and Innovation in Social Science*, 9(9), 780–795.
30. Sessa, Valerie & Deal, & Kabacoff, & Brown, H.. (2007). *Generational differences in perceptions about leadership.. The Psychologist-Manager Journal*. 10. 47-74.
31. Toor, S. U. R., & Ogunlana, S. (2009). *Ineffective leadership: Investigating the negative attributes of leaders and organizational neutralizers. Engineering, Construction and Architectural Management*, 16(3), 254–272.
32. Trilling, B., & Fadel, C. (2020). *21st century skills: Learning for life in our times. Jossey-Bass.*
33. Voogt, J., Knezek, G., Christensen, R., & Lai, K. W. (2021). *Developing 21st century digital competence in teachers. Computers & Education*, 173, 104271.
34. Zhang, Y., Sun, J., & Liu, H. (2022). *Organizational innovation and teacher professional learning in basic education. Asia Pacific Education Review*, 23(3), 425–438.