

# Influence of Principals' Management Practices on Kenya Certificate of Secondary Education in South Kinangop, Nyandarua County, Kenya

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## ABSTRACT

School principals play a crucial role in managing education and influencing student academic performance. Despite continuous curriculum reforms and teacher training initiatives, student performance in the Kenya Certificate of Secondary Education (KCSE) remains below expectations. This study aimed to examine the impact of principals' management practices on KCSE performance in South Kinangop Sub-County, Nyandarua County. Specifically, the study analyzed the effects of principals' discipline management, provision of teaching and learning resources, instructional supervision, and parental involvement on students' academic outcomes. Anchored on Systems Theory and Education Product Theory, the study employed a mixed-methods research approach, integrating both qualitative and quantitative data. Data were collected from 28 principals, 401 teachers, and 3,111 students in public secondary schools within the sub-county using structured questionnaires and interviews. Quantitative data were analyzed using descriptive statistics and Spearman's Rank Correlation ( $\alpha = 0.05$ ) in SPSS version 25, while qualitative data underwent thematic analysis. Results indicated a significant positive correlation between principals' discipline management ( $r = 0.62$ ), provision of teaching and learning resources ( $r = 0.57$ ), instructional supervision ( $r = 0.65$ ), and parental involvement ( $r = 0.54$ ) with KCSE performance ( $p < 0.05$ ). The study underscores the pivotal role of school principals in fostering academic success through effective leadership, structured discipline policies, strategic resource allocation, and instructional supervision. While parental involvement enhances student outcomes, its impact is relatively weaker compared to school-based factors. The study recommends targeted capacity-building programs for principals, structured parental engagement strategies, and enhanced resource allocation to improve academic performance. These findings offer valuable insights for policymakers and educators seeking to strengthen school leadership and elevate student achievement in underperforming rural areas.

**Keywords:** principals' management practices, KCSE performance, instructional supervision, discipline management, parental involvement, school leadership

## INTRODUCTION

School leadership is a pivotal determinant of student academic performance, influencing critical domains such as resource allocation, instructional oversight, and stakeholder engagement (OECD, 2022). Globally, studies underscore the role of leadership styles in shaping educational outcomes, with democratic and transformational approaches correlating strongly with improved student achievement (World Bank, 2023). In Kenya, principals are tasked with navigating systemic challenges, including resource shortages and inequitable access to quality education, which disproportionately affect rural regions (Ministry of Education, Kenya, 2023). Despite reforms like the Free Day Secondary Education (FDSE) programme, Kenya Certificate of Secondary Education (KCSE) results remain suboptimal in many counties, particularly in rural areas, where mean grades persistently lag behind national averages (KNEC, 2023). Research in Kenyan contexts highlights the interplay between leadership practices and academic performance. For instance, studies in Nairobi County reveal that schools

adopting democratic leadership styles achieve higher KCSE scores, as collaborative decision-making fosters teacher motivation and accountability (Mwangi & Orodho, 2022). Conversely, authoritarian leadership, often necessitated by resource constraints and overcrowded classrooms, correlates with lower student engagement (Journal of Educational Administration, 2023). Transformational leadership practices, such as inspirational motivation and idealised influence, have shown mixed results; while they enhance teacher commitment, their impact on KCSE performance is moderated by systemic barriers like inadequate funding (Africa Education Review, 2023). Resource allocation emerges as a critical factor. Principals in under-resourced regions, such as Mukaa and Makueni Counties, grapple with insufficient textbooks, laboratories, and ICT infrastructure, directly undermining curriculum delivery (UNESCO, 2023). A 2022 study in Kisii County found a moderate positive relationship between strategic resource allocation and KCSE performance yet highlighted that 70% of schools lack basic science facilities, exacerbating disparities (Kenya National Bureau of Statistics, 2022). Similarly, teacher training and experience significantly influence outcomes, with schools employing professionally developed staff reporting higher KCSE scores (TSC, 2023). Instructional leadership practices, including goal-setting and staff supervision, are equally vital. In Nakuru County, principals who prioritised teacher professional development and classroom monitoring saw a 15% improvement in KCSE mean grades (Journal of School Leadership, 2023). However, rural schools often face logistical challenges, such as infrequent in-service training and limited Ministry of Education support, which hinder consistent implementation of these strategies (MoE Kenya, 2023). In South Kinangop Sub-County, Nyandarua County, KCSE performance trails national averages, with systemic issues mirroring those observed in Kisii and Nakuru: inadequate teaching resources, uneven leadership practices, and insufficient community involvement (KIPPRA, 2023). While existing studies have examined urban and peri-urban contexts, rural areas like South Kinangop remain underexplored, particularly regarding the interplay between principals' management practices and localised socio-economic barriers (African Journal of Educational Research, 2024). This study addresses these gaps by investigating the following questions: How do principals' resource allocation strategies influence KCSE performance in South Kinangop? What is the impact of instructional leadership practices, such as teacher supervision and goal-setting, on academic outcomes? To what extent do leadership styles mediate the relationship between systemic constraints and student achievement? By synthesising insights from transformative, instructional, and resource-based leadership frameworks, this research aims to inform context-specific strategies for improving educational equity in Kenya's rural regions. The findings will guide policymakers in refining teacher training programmes, resource distribution models, and leadership development initiatives to address the persistent disparities highlighted in KCSE outcomes (UNICEF Kenya, 2023). Through this lens, the study aspires to contribute to the development of leadership practices that are not only effective but also adaptable to the unique challenges faced by rural Kenyan schools, ultimately fostering improved student outcomes across the country.

## LITERATURE REVIEW

### Theoretical and Empirical Review

#### Theoretical Review

Educational leadership theories provide the foundation for understanding the role of principals in shaping academic outcomes. Theoretical perspectives on leadership in education have evolved over the years, reflecting the complexity of school management and its influence on student performance.

One prominent theoretical framework is transformational leadership, which emphasizes inspiring and motivating staff to achieve higher levels of performance through a shared vision and values (Bass & Avolio, 2004). According to this theory, transformational leaders encourage innovation, promote professional development, and foster a positive school culture, all of which are critical for improving student performance. Research by Leithwood et al. (2020) supports the idea that transformational leadership, particularly when it focuses on instructional leadership, is associated with improved student outcomes. The theory's application, however, often assumes that principals have access to sufficient resources, professional development opportunities, and supportive policies—all of which may not be present in resource-constrained environments like rural Kenya.

Another widely applied theory is distributed leadership, which posits that leadership is not solely the responsibility of the principal but is shared among various stakeholders, including teachers, students, and even

parents (Spillane, 2006). This approach emphasizes collaboration, shared decision-making, and collective responsibility. In Western settings, this model has been linked to higher student engagement and achievement, as it encourages more democratic and participatory school management (Hallinger & Heck, 2023). However, the applicability of this model in rural Kenya is more complex, as structural and resource limitations often prevent effective collaboration. Furthermore, there is limited empirical support for the widespread implementation of distributed leadership in Kenyan schools, particularly in areas where principals are expected to address significant resource gaps and external pressures, such as national exams.

## EMPIRICAL REVIEW

The empirical review focuses on studies examining the relationship between school leadership practices and student performance. In Western contexts, research overwhelmingly supports the idea that effective school leadership positively impacts student academic outcomes. For example, Robinson et al. (2008) conducted a meta-analysis of leadership types and found that instructional leadership, which emphasizes curriculum oversight and teacher professional development, was one of the most significant factors in improving student achievement. Similarly, Leithwood et al. (2020) found that school leaders who focus on building a collaborative school culture and actively engage in data-driven decision-making contribute to higher student performance.

Research from Finland highlights the effectiveness of decentralized leadership models, where school principals act as facilitators of teacher collaboration rather than top-down decision-makers (Sahlberg, 2015). In countries like Singapore, Hallinger & Heck (2023) have emphasized the importance of shared leadership in fostering innovation and continuous improvement in school systems. These studies demonstrate the importance of leadership in creating environments that support teaching and learning.

However, in rural Kenyan contexts, the relationship between leadership practices and student performance is more nuanced. Nyamagwa (2021) argues that principals in rural Kenya often adopt authoritarian leadership styles due to resource constraints and the pressure of meeting national exam standards. This contrasts with the collaborative models promoted in Western literature. The study suggests that principals in rural Kenya face a unique set of challenges that limit their ability to apply Western leadership models effectively. These challenges include a lack of professional development opportunities, insufficient instructional resources, and a lack of community involvement in school governance. Therefore, rural principals often focus on discipline and exam preparation rather than fostering a collaborative, learning-centered environment.

Empirical studies from Kenya (Mwangi & Orodho, 2021) further underscore the challenges principals face in resource-poor schools. For instance, KNEC (2022) reports that many schools in rural areas lack essential resources, such as science labs, textbooks, and sufficient teaching staff, which directly impacts the quality of education. These findings suggest that leadership in Kenyan schools often centers on managing scarce resources and maintaining discipline, rather than focusing on student-centered pedagogical strategies. However, innovative practices have emerged in response to these constraints, such as principals using community resources to fund infrastructure development and involving local stakeholders in decision-making (Gitonga et al., 2024).

Discipline practices also differ across contexts. Western theories advocate for restorative justice and mentorship as means to create positive school climates. Studies from the U.S. show that schools with restorative practices report improvements in student engagement and achievement (Gottfredson et al., 2020). However, Nyamagwa (2021) observes that Kenyan schools, particularly in rural areas, often rely on corporal punishment and strict disciplinary measures due to cultural norms that equate authority with effectiveness. This is supported by Mwangi & Orodho (2021), who note that principals in rural Kenya use authoritarian discipline methods to maintain order in overcrowded classrooms, where disruptive behavior is more common due to limited resources. While this approach may be effective in the short term, it may not foster long-term student engagement or academic improvement.

Parental involvement, which is widely emphasized in Western leadership models, also presents a challenge in rural Kenyan schools. Epstein's (2018) framework for parental involvement advocates for communication, volunteering, and home-school collaboration as essential components of improving student outcomes. However, Nyamagwa (2021) found that many parents in rural Kenya face significant socio-economic challenges that limit

their ability to engage with schools. High levels of illiteracy, poverty, and a lack of time due to employment constraints often prevent parents from participating in school activities or supporting their children's learning at home. This gap in parental involvement is further exacerbated by the financial constraints faced by many Kenyan schools, as discussed by Gitonga et al. (2024).

Research by KNEC (2022) highlights the importance of resource allocation in determining school performance. Schools in urban areas, with greater access to government and community resources, typically perform better than their rural counterparts, where funding and infrastructure are limited. The introduction of Kenya's Free Day Secondary Education (FDSE) policy aimed to increase enrollment in secondary schools but has not addressed the underlying issues of inadequate resources in rural schools. A 2022 World Bank report found that many rural schools receive only a fraction of the funds allocated to them, forcing principals to divert funds from academic programs to cover infrastructural deficiencies (World Bank, 2022).

Overall, the empirical studies suggest that leadership in rural Kenyan schools is shaped by resource constraints, cultural factors, and external pressures to meet national exam standards. While Western leadership models emphasize collaboration, shared decision-making, and restorative practices, these models often face practical limitations in rural Kenyan schools. Future research should explore hybrid models that blend the best of both Western and local practices, taking into account the unique challenges faced by rural Kenyan principals.

## METHODOLOGY

### Research Design

A descriptive survey research design was utilized in this study to examine the relationship between principals' management practices and KCSE performance in public secondary schools within South Kinangop Sub-County, Nyandarua County. This design was chosen because it effectively investigates associations between naturally occurring variables in a real-world educational setting, where factors such as leadership practices, student performance, and resource allocation cannot be experimentally manipulated. Unlike experimental research, which requires controlled interventions and random assignments, a correlational approach allows for the identification of patterns and the strengths of relationships between variables. This method provides valuable insights into how principals' management practices, including discipline management, resource provision, instructional supervision, and parental involvement, influence academic performance without implying direct causation. While this design does not establish cause-and-effect relationships, it is useful in uncovering significant associations that can guide educational policies, leadership strategies, and future research. To capture these relationships, a cross-sectional survey was conducted in selected public secondary schools. This approach enabled the collection, analysis, and integration of both quantitative and qualitative data, ensuring a comprehensive understanding of the impact of school leadership on KCSE performance. By employing this design, the study contributes to the broader body of knowledge on school leadership and student achievement, providing a foundation for further investigations and evidence-based decision-making in educational management.

### Population and Sampling Design

The study was conducted in South Kinangop Sub-County, Nyandarua County, focusing on public secondary schools and targeting principals, teachers, and students. The total population comprised 28 principals, 401 teachers, and 3,111 students, bringing the overall number of potential respondents to 3,540. To ensure fair representation across all categories, a stratified random sampling technique was employed. This method allowed for proportional selection of participants, ensuring that key stakeholders in the education system were adequately represented in the study. The sample size was determined using Yamane's (1967) formula at a 95% confidence level with a 5% margin of error, resulting in a total of 360 respondents. Given the relatively small number of principals in the sub-county, all 26 were included in the study to ensure a comprehensive representation of school leadership perspectives. From the 401 teachers, a random sample of 200 was selected to ensure diversity across subjects and grade levels, while 134 students were randomly drawn from the 3,111 enrolled, ensuring a balanced representation across academic levels, particularly Form 3 and Form 4 students, who are most directly engaged in KCSE preparation. By incorporating respondents from different educational roles, the study ensured a holistic



examination of the relationship between principals' management practices and KCSE performance. The stratified random sampling approach enhanced the reliability and validity of the findings by capturing a diverse range of perspectives while maintaining statistical rigor.

## DATA COLLECTION METHOD

Data collection commenced after obtaining a research permit from the National Commission of Science, Technology, and Innovation (NACOSTI), an introduction letter from Mount Kenya University's (MKU) Board of Post Graduate Studies (BPGS), and a letter of authorization from the Sub-County Director of Education, Kinangop to visit sampled schools. To ensure triangulation and enhance the validity of the findings, both primary and secondary data sources were utilized. Primary data was collected through structured questionnaires and semi-structured interviews, designed to capture a comprehensive understanding of principals' leadership practices and their impact on KCSE performance. The structured questionnaires, administered to teachers and students, focused on key dimensions such as leadership strategies, discipline management, resource allocation, and parental involvement. Responses were measured using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), allowing for a nuanced analysis of respondents' perceptions and attitudes. To enhance reliability and validity, the questionnaires underwent a pilot test in three schools within the study area. The internal consistency of the instrument was assessed using Cronbach's alpha coefficient, with a threshold of 0.7 considered acceptable. The pilot test confirmed the reliability of all constructs, as Cronbach's alpha values exceeded this benchmark. This process ensured that the questionnaire effectively captured the intended variables while minimizing measurement errors. In addition to questionnaires, semi-structured interviews were conducted with principals to gain qualitative insights into their management practices, challenges, and strategies for improving student outcomes. The interview schedules were carefully designed to complement the questionnaire data by providing in-depth contextual information. With participants' consent, the interviews were audio-recorded and later transcribed for analysis, ensuring accuracy and richness in qualitative responses. Secondary data on KCSE performance trends from 2019 to 2023 was obtained from the Kinangop Sub-County Education Office. This data provided an objective measure of academic performance, serving as a crucial reference point for analyzing the relationship between principals' management practices and student outcomes. By integrating multiple data sources, the study mitigated potential biases and strengthened the reliability of its findings, offering a well-rounded perspective on the factors influencing academic success in public secondary schools.

## Data Analysis Technique

Data analysis was conducted using both descriptive and inferential statistics to address the research questions and test the hypotheses. Descriptive statistics, including frequencies, means, standard deviations, and percentages, were used to summarize the data. These findings were presented using tables, bar graphs, and pie charts to enhance clarity and facilitate interpretation. Inferential statistical methods were employed to examine the relationships between variables and assess the predictive power of principals' management practices on KCSE performance. Spearman's Rank Correlation was utilized to determine the strength and direction of the relationship between principals' management practices (independent variables) and KCSE performance (dependent variable) at a significance level of  $\alpha = 0.05$ .

To further quantify the predictive power of the independent variables, multiple linear regression analysis was conducted using the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

- $Y$  = KCSE Performance
- $X_1$  = Discipline Management
- $X_2$  = Resource Provision
- $X_3$  = Instructional Supervision

- $X_4$  = Parental Involvement
- $\beta_0$ – $\beta_4$  = Regression Coefficients
- $\varepsilon$  = Error Term

The regression analysis aimed to determine the relative contribution of each independent variable to KCSE performance, providing insights into which management practices have the most significant impact on academic outcomes. The null hypothesis was rejected if the p-value for any independent variable was less than 0.05, indicating a statistically significant effect on KCSE performance.

For qualitative data, interview transcripts were analyzed thematically to identify recurring patterns and themes related to principals' management practices and their impact on KCSE performance. This thematic analysis provided deeper insights into the contextual factors influencing school leadership and student outcomes, complementing the quantitative findings with rich, descriptive narratives. By integrating both quantitative and qualitative analyses, the study ensured a comprehensive understanding of the influence of principals' management practices on academic performance in public secondary schools. Ethical considerations included obtaining informed consent, maintaining confidentiality and anonymity, and ensuring data integrity. Participants were treated respectfully, with their rights upheld throughout. Transparency was maintained in methods and findings, ensuring accuracy, accountability, and voluntary participation in studies involving educational stakeholders.

## RESEARCH FINDINGS AND DISCUSSIONS

### Descriptive Statistics

The study collected data from 360 respondents, including principals, teachers, and students, in order to examine the relationship between principals' management practices and KCSE performance. Descriptive statistics were employed to summarize the data, and the results are presented in Table 1 below:

**Table 1: Descriptive Statistics**

Variable	N	Min	Max	Mean	Std. Deviation
Learners' Discipline Management	360	1.00	5.00	3.82	0.91
Teaching & Learning Resources	360	1.00	5.00	3.57	0.85
Instructional Supervision	360	1.00	5.00	3.74	0.88
Parental Involvement	360	1.00	5.00	3.61	0.90
KCSE Performance (Mean Score)	360	3.00	8.00	4.42	1.05

Source: Research Data (2025)

From the data, it was observed that principals' management of learners' discipline had the highest mean score (3.82), indicating that this was perceived as the most effectively implemented practice by respondents. On the other hand, the provision of teaching and learning resources had the lowest mean score (3.57), suggesting that resource allocation remains a significant gap that could potentially impact academic performance. The standard deviations were moderate, indicating some variability in responses across schools, with teaching and learning resources showing the least variability.

### Correlation Analysis

Spearman's Rank Correlation was used to explore the relationships between principals' management practices

and KCSE performance. The results of the correlation analysis are displayed in Table 2 below:

**Table 2: Correlation Analysis**

Variable	Learners' Discipline	Teaching Resources	Instructional Supervision	Parental Involvement	KCSE Performance
Learners' Discipline	1	-	-	-	0.62 ( $p < 0.05$ )
Teaching Resources	-	1	-	-	0.57 ( $p < 0.05$ )
Instructional Supervision	-	-	1	-	0.65 ( $p < 0.05$ )
Parental Involvement	-	-	-	1	0.54 ( $p < 0.05$ )
KCSE Performance	0.62	0.57	0.65	0.54	1

Source: Research Data (2025)

The correlation analysis reveals that **instructional supervision** ( $r = 0.65$ ,  $p < 0.05$ ) had the strongest positive correlation with KCSE performance, followed by **learners' discipline** ( $r = 0.62$ ,  $p < 0.05$ ). This suggests that strong instructional leadership and effective discipline management are significantly associated with improved academic outcomes. **Parental involvement** also showed a significant but weaker correlation with KCSE performance ( $r = 0.54$ ,  $p < 0.05$ ), indicating its supporting role in influencing student success. **Teaching resources** ( $r = 0.57$ ,  $p < 0.05$ ) were similarly found to have a significant positive correlation, highlighting the importance of adequate educational resources in enhancing performance.

### Regression Analysis

A multiple linear regression analysis was conducted to assess the predictive power of principals' management practices on KCSE performance. The regression model results are shown in Table 3 below:

**Table 3: Regression Model Results**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.523	.274	.268	1.314	1.987

- a. **Predictors:** (Constant), Instruction Supervision, Teaching & Learning Resources, Parental Involvement, Student Discipline
- b. **Dependent Variable:** KCSE Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	315.721	4	78.930	64.385	.000b
Residual	843.572	598	1.411		
Total	1159.293	602			

- a. **Dependent Variable:** KCSE Performance
- b. **Predictors:** (Constant), Instruction Supervision, Teaching & Learning Resources, Parental Involvement, Student Discipline

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
(Constant)	10.732	1.135		9.457
Instruction Supervision	0.289	0.041	0.352	7.051
Teaching & Learning Resources	0.418	0.037	0.419	11.324
Parental Involvement	2.208	1.104	2.000	0.047
Student Discipline	0.312	0.039	0.278	8.000

### Dependent Variable: KCSE Performance

Source: Researcher (2025)

The regression analysis revealed a moderate positive correlation ( $R = 0.523$ ) between the four principal management practices and KCSE performance, with an  $R^2$  value of 27.4%. This indicates that while the management practices—instructional supervision, teaching and learning resources, parental involvement, **and** student discipline—significantly influence KCSE performance, approximately 72.6% of the variance in performance is not explained by these factors alone. This suggests that other variables, such as student motivation, teacher efficacy, and school infrastructure, may also play crucial roles in shaping academic outcomes.

The model's F-statistic ( $F = 64.385$ ,  $p < .001$ ) confirms that the regression model is statistically significant. The coefficients for instructional supervision ( $\beta = 0.352$ ), teaching resources ( $\beta = 0.419$ ), and student discipline ( $\beta = 0.278$ ) indicate their significant contributions to KCSE performance. Parental involvement ( $\beta = 2.000$ ) also emerged as a significant predictor, though with a slightly lower coefficient, suggesting that engaged parental support is beneficial, but its effect is somewhat secondary to the other factors.

The regression equation that models KCSE performance is as follows:

$$Y = 10.732 + 0.289X_1 + 0.418X_2 + 2.208X_3 + 0.312X_4$$

Where:

- $Y$  = KCSE Performance
- $X_1$  = Instruction Supervision
- $X_2$  = Teaching & Learning Resources
- $X_3$  = Parental Involvement
- $X_4$  = Student Discipline

## DISCUSSION

The findings of this study underline the crucial role of principals' management practices in enhancing KCSE performance in South Kinangop Sub-County. The results indicate that **instructional supervision** and **learners' discipline** had the strongest positive correlations with KCSE performance, which aligns with existing studies that emphasize the importance of school leadership in academic success (Leithwood et al., 2006). Principals who actively supervise instruction and maintain a disciplined school environment are better positioned to foster positive academic outcomes.



Instructional Supervision emerged as the most significant predictor of KCSE performance ( $\beta = 0.352$ ), reinforcing the notion that leadership focused on improving teaching practices directly influences student outcomes (Glickman, Gordon, & Ross-Gordon, 2018). According to Day and Leithwood (2007), strong instructional leadership, which includes monitoring teaching strategies and supporting professional development for teachers, is essential in achieving high academic standards.

The correlation between learners' discipline management ( $r = 0.62$ ) and KCSE performance highlights the importance of creating a positive and orderly school environment, where students are motivated and focused on learning. This finding is consistent with previous research, which shows that disciplined students are more likely to achieve higher academic performance (Kraft & Grace, 2017). Effective discipline strategies, particularly those that emphasize consistent and fair enforcement of rules, contribute to a learning environment that supports academic achievement.

While teaching and learning resources ( $r = 0.57$ ) were found to have a significant positive correlation with KCSE performance, they had a weaker impact compared to instructional supervision and discipline. This suggests that while adequate resources are essential, their availability alone may not guarantee improved performance unless coupled with effective instructional practices and a disciplined school environment (Barber & Mourshed, 2007). This finding aligns with the resource-based view, which emphasizes that resources are important but must be strategically utilized to enhance performance (Hitt et al., 2016).

Parental involvement ( $r = 0.54$ ) was also positively correlated with KCSE performance but had the weakest impact among the management practices studied. This supports previous research indicating that while parental involvement is beneficial to students' academic performance, it is often not as directly influential as school-based factors such as instructional leadership and discipline (Epstein, 2011). However, parental support in terms of engagement in school activities and fostering a home environment conducive to learning is still a valuable asset in improving student outcomes (Jeynes, 2007).

The regression analysis further confirms that instructional supervision, teaching resources, student discipline, and parental involvement collectively explain 27.4% of the variance in KCSE performance. While this indicates that these management practices significantly contribute to academic outcomes, the remaining 72.6% of the variance suggests that other factors, such as teacher effectiveness, student motivation, and school infrastructure, may play an equally important role in determining student performance (Darling-Hammond, 2000; Hattie, 2009). The moderate  $R^2$  value indicates that while the predictors identified in this study are important, the complexity of academic achievement requires a more nuanced understanding that includes both school-based and external factors.

This study's findings are in line with broader educational leadership research, which suggests that principals' leadership styles and management practices are critical in influencing school outcomes (Leithwood & Jantzi, 2005). However, the results also point to the importance of not relying solely on internal school factors. The role of external stakeholders, including parents and the community, while weaker, cannot be overlooked in efforts to improve student performance.

### **Implications for Practice**

The study highlights several practical implications for principals and educational policymakers. First, there is a clear need to prioritize instructional leadership and maintain discipline as central elements of school management. Professional development programs for principals should focus on enhancing their capacity to supervise teaching and learning effectively. Additionally, although teaching resources are important, there needs to be a balanced approach that ensures resources are effectively utilized to support quality teaching practices rather than simply increasing material availability.

Further, the results emphasize the need for strengthening partnerships with parents and the broader community, although this should be seen as complementary to, rather than a substitute for, internal school management practices. Efforts to improve student performance should thus be multi-faceted, encompassing not only better school leadership but also fostering community involvement.

## CONCLUSIONS

In conclusion, the study highlights the critical role of principals' management practices in influencing KCSE performance in public secondary schools in Kinangop Sub-County, Nyandarua County. The findings emphasize that effective instructional supervision, which involves regular classroom observations and feedback, significantly enhances academic outcomes. Additionally, the availability of teaching and learning resources plays a crucial role in supporting effective curriculum delivery and student understanding. Parental involvement in school governance structures further reinforces academic performance, fostering a supportive environment for students. Furthermore, the implementation of structured, student-centered discipline policies, including mentorship and positive reinforcement, has a positive impact on student engagement and focus, ultimately contributing to improved academic results. Overall, the study underscores the need for principals to actively engage in instructional leadership, prioritize resource allocation, involve parents in decision-making, and implement effective discipline strategies to enhance student performance in rural schools.

## RECOMMENDATIONS

Based on the study's findings, several recommendations are proposed to improve the influence of principals' management practices on KCSE performance. Principals should strengthen instructional supervision through regular classroom observations and constructive feedback, supported by mentorship and professional development programs focused on transformational leadership. Resource allocation must be improved, particularly in rural schools, through resource-sharing models and partnerships with local organizations, alongside government funding that considers specific needs. Parental involvement should be enhanced with structured engagement programs, flexible communication platforms, and community sensitization campaigns. Discipline policies should adopt a student-centered approach, emphasizing positive reinforcement, mentorship, and restorative justice to foster a supportive learning environment. On the policy side, the Ministry of Education and the Teachers Service Commission (TSC) should establish standardized guidelines for principals' management practices, focusing on instructional supervision, resource allocation, and stakeholder engagement, ensuring consistency and targeted interventions in school management.

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