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Geographical Location and Access to External School Quality Monitoring: Evidence from Urban and Rural Primary Schools in Kakamega County, Kenya

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Abstract: *Equitable access to school quality monitoring remains central to improving accountability, instructional standards, and learning outcomes in basic education systems. In Kenya, the Directorate of Quality Assurance and Standards is mandated to undertake regular school assessments to ensure compliance with national education standards. However, concerns persist that schools located in rural areas may receive fewer external quality monitoring visits compared with urban schools because of transport barriers, staffing shortages, and administrative constraints. This study examined the influence of geographical location on access to external school quality monitoring among public primary schools in Kakamega County, Kenya, with specific focus on differences in the frequency of quality assurance and standards assessments between urban and rural schools. The study adopted a correlational comparative research design. The target population comprised head teachers, deputy head teachers, senior teachers, and curriculum support officers drawn from sampled public primary schools in Kakamega County. Data were collected using structured questionnaires and official school assessment records. Validity of instruments was established through expert review, while reliability was confirmed through pilot testing (Cronbach's alpha > 0.80). Descriptive statistics, independent samples t-tests, and regression analysis were used in data analysis. Findings indicated statistically significant differences in the frequency of external quality monitoring between urban and rural schools ($p < 0.05$), with urban schools reporting more frequent inspections and standards follow-up visits than rural counterparts. Regression results further showed that school location significantly predicted access to external quality monitoring after controlling for school size and staffing levels. The study concludes that geographical disparities continue to shape access to regulatory and support services in primary education. It recommends increased facilitation for field officers, decentralization of quality assurance operations, and prioritization of underserved rural schools to promote equity in school supervision.*

Keywords: *Geographical Location, School Quality Monitoring, Quality Assurance, Urban Schools, Rural Schools, Primary Education*

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1. Introduction

Quality basic education depends not only on access to schooling, but also on systems that continuously monitor standards, support teachers, and hold institutions accountable for learner outcomes. Across the world, external school quality monitoring has become a core governance strategy used by governments to evaluate

instructional processes, institutional leadership, learner welfare, curriculum implementation, and resource utilization. When effectively implemented, quality monitoring systems help identify weaknesses early, generate corrective recommendations, and stimulate school improvement through evidence-based feedback. According to UNESCO, strong accountability and monitoring mechanisms are essential for achieving equitable and inclusive education systems under Sustainable Development Goal 4 (UNESCO, 2023).

External school quality monitoring commonly takes the form of inspections, standards assessments, supervisory visits, and compliance audits conducted by authorized agencies. In countries such as the United Kingdom, the Netherlands, and Singapore, inspection systems have been associated with improved school planning, stronger leadership accountability, and higher instructional consistency (World Bank, 2022). These systems do not merely enforce regulations; they also provide professional guidance to school leaders and teachers. Where monitoring is regular and constructive, schools are more likely to sustain curriculum fidelity, safe learning environments, and performance improvement initiatives.

In Kenya, external school monitoring is mandated through the Directorate of Quality Assurance and Standards under the Ministry of Education, Kenya. The Directorate is responsible for assessing institutional compliance with national education policies, curriculum implementation, teacher preparedness, infrastructure adequacy, financial management, and learner protection standards. Kenya's recent education reforms, including Competency-Based Curriculum implementation and expanded access to primary schooling, have increased the need for strong quality assurance systems that can support schools during transition and maintain minimum standards (Republic of Kenya, 2023).

Despite this policy framework, evidence from many developing countries shows that access to regulatory and support services often varies by geographical location. Urban schools tend to benefit from proximity to administrative centres, better roads, stable communication networks, and concentration of public officers. Rural schools, by contrast, may face delayed service delivery due to long travel distances, poor road infrastructure, dispersed settlements, seasonal weather barriers, and limited government operational resources. The World Bank (2022) notes that geographical remoteness remains one of the strongest predictors of unequal access to public education support services in low- and middle-income countries.

The urban–rural divide is particularly relevant in Kakamega County, which contains municipalities, peri-urban centres, and large rural settlements spread across diverse terrain. Although the county has experienced expansion in school enrolment and educational infrastructure, administrative service delivery may not be equally distributed across locations. Schools situated near county and sub-county headquarters may receive more frequent quality assurance visits than those in remote rural zones. If such disparities exist, they could affect institutional compliance, teacher support, implementation of reforms, and overall school effectiveness.

Previous studies in Kenya have largely focused on teacher supply, infrastructure, financing, and learner achievement, while limited empirical attention has been given to whether school location influences the frequency of external quality monitoring. Yet the regularity of standards assessments matters because schools that are rarely monitored may miss opportunities for professional guidance, early problem detection, and policy enforcement. This creates the risk that location-based inequalities in supervision may translate into wider inequalities in educational quality.

It is against this background that the present study examined geographical location and access to external school quality monitoring among public primary schools in Kakamega County. Specifically, the study sought to determine whether significant differences exist in the frequency of quality assurance and standards assessments between urban and rural primary schools. Findings from the study are expected to inform more equitable deployment of monitoring services and strengthen school accountability systems in Kenya.

Although Kenya's Directorate of Quality Assurance and Standards is mandated to conduct regular school inspections across all regions, empirical evidence on how school location specifically influences the frequency of these monitoring visits remains limited, particularly within Kakamega County. This disparity raises concerns about persistent urban-rural inequalities in educational support and oversight, necessitating a focused investigation into the relationship between geographical location and access to external quality monitoring.

2. Literature Review

2.1 Theoretical Review

This study was anchored on systems theory developed by Ludwig Von Bertalanffy and Weihrich (1988). The systems theory postulates that an organized enterprise does not exist in isolation: it's dependent on its environment in which it is established. As adopted in this study, the inspection policy, QASO, and schools make up a system. The policy on school inspection should be mirrored in schools of all characteristics; the frequency should be uniform across schools with different characteristics for us to achieve quality education as the main objective of inspection of schools. The inputs from the environment in this case are

the school assessment policy, and QASO are received by the organization, who are schools of different characteristics, and then transform them into frequency into output, which is quality education after processing such inputs, resulting in quality, which is the mean in a school's performance in national examinations. All variables within the inspection policy and school characteristics should function in unison so as to achieve the desired outcome of quality in our education system.

2.2 Empirical Review

External school quality monitoring has consistently been identified as an important instrument for improving institutional effectiveness and maintaining education standards. Monitoring systems that involve routine inspections, standards audits, and professional advisory visits often enhance compliance with curriculum policy, teacher accountability, and school leadership performance. A comparative review conducted by UNESCO found that countries with structured inspection frameworks recorded stronger school improvement planning and more consistent implementation of teaching standards. Similarly, the World Bank observed that schools exposed to regular supervisory support were more likely to improve instructional management and learner achievement than institutions operating with weak oversight systems (UNESCO, 2023; World Bank, 2022). These findings suggest that external monitoring contributes not only to regulation, but also to continuous institutional development.

Globally, in high-performing education systems, external school quality monitoring is often characterized by structured, professionalized, and improvement-oriented approaches. For instance, in England, the Office for Standards in Education (Ofsted) conducts regular, risk-based inspections focusing on quality of education, leadership, behaviour, and safeguarding, with findings publicly reported to drive accountability and school improvement (OECD, 2023). Similarly, the Netherlands employs a differentiated inspection model that combines risk assessment with targeted visits, emphasizing school self-evaluation supplemented by external validation, while Singapore integrates rigorous external reviews with strong internal quality assurance, prioritizing instructional leadership and data-driven practices. Recent comparative studies (Gardezi, 2025) highlight those effective systems in countries like New Zealand and Ireland balance accountability with developmental support, often incorporating school self-evaluation alongside external inspections to foster ownership and continuous improvement. These international models demonstrate that well-resourced, transparent, and context-sensitive monitoring can reduce disparities and enhance overall educational quality, offering valuable lessons for addressing geographical inequities observed in contexts like Kakamega County.

Geographical accessibility remains a major determinant of how frequently schools receive external quality assurance services. Studies from sub-Saharan Africa indicate that education officers tend to prioritize schools located near urban centres because such institutions are easier and less costly to reach. In a regional study across East Africa, rural schools reported fewer supervisory visits due to transport challenges, poor roads, and staffing constraints among inspection departments. Likewise, research in Uganda established that schools located in remote districts often went for long periods without formal inspection, weakening implementation of national education standards (Nsubuga & Oonyu, 2021; African Development Bank, 2022). This demonstrates that physical location can directly influence the consistency of school monitoring services.

In the Kenyan context, quality assurance and standards assessments are intended to be uniformly implemented across all schools, yet practical disparities continue to emerge. According to Ministry of Education Kenya reports, shortages of transport facilities, limited personnel, and growing numbers of schools have reduced the capacity of officers to conduct regular visits, especially in rural counties. A study in Bungoma County found that schools near municipality centres received more frequent monitoring compared with those in interior rural zones. Similarly, Wanyama and Simiyu (2022) reported that rural schools in western Kenya often relied on self-evaluation because external assessors visited infrequently (Ministry of Education Kenya, 2024; Wanyama & Simiyu, 2022). Such evidence suggests that equal policy intention does not always translate into equal service delivery.

The frequency of external monitoring has also been linked to teacher effectiveness and learner outcomes. Schools that receive regular quality assurance visits benefit from closer follow-up on lesson preparation, syllabus coverage, learner assessment practices, and instructional leadership. Research by Barasa and Mutua (2024) in western Kenya found that institutions receiving more frequent standards assessments demonstrated stronger teacher punctuality, improved professional record keeping, and better academic trend management. In another study, the OECD concluded that constructive inspection systems encourage schools to adopt data-driven teaching strategies and continuous improvement cultures, which ultimately raise learner achievement (Barasa & Mutua, 2024; OECD, 2023). This implies that disparities in monitoring frequency may contribute indirectly to disparities in educational performance.

Although previous scholarship has examined school supervision, administrative efficiency, and educational inequalities, limited studies have specifically compared the

frequency of quality assurance and standards assessments between urban and rural primary schools in Kakamega County. Most available studies discuss school inspection broadly without isolating location as a predictive factor. Others focus on secondary schools or teacher appraisal systems rather than primary institutions. UNESCO recommends localized evidence to guide equitable education governance, while the World Bank emphasizes data-driven targeting of underserved schools (UNESCO, 2023; World Bank, 2022). This study therefore, sought to fill that contextual gap by empirically examining whether geographical location influences access to external school quality monitoring in Kakamega County.

3. Methodology

This study adopted a correlational comparative research design to examine whether geographical location influences access to external school quality monitoring among public primary schools in Kakamega County. The design was considered appropriate because it enabled the researcher to compare naturally existing groups manipulating variables, while also determining the statistical relationship between school location and the frequency of quality assurance and standards assessments. The study was conducted in Kakamega County, a region characterized by both urban municipalities and extensive rural settlements, making it suitable for analysing location-based disparities in educational service delivery. The target population comprised head teachers, deputy head teachers, senior teachers, and curriculum support officers drawn from public primary schools within the county. Stratified sampling was used to classify schools into urban and rural strata, after which simple random sampling selected participating schools, while purposive sampling was applied to identify respondents with relevant administrative knowledge on school monitoring processes. This sampling approach enhanced representativeness and ensured inclusion of key education stakeholders knowledgeable about external quality assurance activities (Creswell & Creswell, 2023; Orodho, 2021).

Data were collected using structured questionnaires and document analysis schedules based on official school records relating to external monitoring visits, inspection reports, and standards assessment frequency. The questionnaires captured perceptions on accessibility, regularity, and usefulness of quality monitoring services, while document review provided objective verification of reported visits. Instrument validity was established through expert review by specialists in educational administration and research methodology, while reliability was tested through a pilot study conducted in a neighboring county, yielding a Cronbach's alpha coefficient above the acceptable threshold of 0.70. Ethical principles were observed through informed consent, confidentiality, anonymity, and voluntary participation of respondents. Data were analysed using descriptive statistics such as frequencies, means, and standard deviations to summarize patterns of monitoring access, while inferential statistics included independent samples t-tests to determine differences between urban and rural schools, and multiple regression analysis to assess the predictive effect of geographical location after controlling for school size and staffing variables. Statistical significance was tested at the 0.05 level, which is widely accepted in educational research for hypothesis testing (Field, 2022; Creswell & Creswell, 2023).

In order to ensure ethical considerations, a research permit was sought from NACOSTI, which was then used to seek authority from other officers during the data collection exercise. The researcher sought consent from the participants as participation was on a voluntary basis. Furthermore, the respondents were informed of the nature and purpose of the study. Anonymity and confidentiality of information were maintained. The researchers run the entire proposal through anti-plagiarism software to ensure that it conforms to the requirements of the university on plagiarism.

4. Results and Discussion

Data was collected on the number of times a school was assessed by various directorates of quality assurance and standards officers at national, county, sub-county, and zonal levels between the years 2013 and 2017. The average frequency of assessments by the school per year was then calculated. Further, the primary schools were categorised according to their geographic location. Those that were situated in towns and municipalities were categorised under urban schools, while those that were located in rural areas were grouped under rural primary schools. Thereafter, an independent sample t-test was used to test the hypothesis that there was no statistically significant difference in the frequency of assessment between primary schools located in urban and those located in rural areas in Kakamega County. The findings are shown in Table 1.

Table 1. Test statistics for the difference in frequency of assessment between rural and urban schools

Frequency of assessment	**School type**	**Group Statistics**					
		Number	**Mean**	**Std deviation**	**Std error mean**		
Average Frequency Of assessment	Urban	30	.53639	.311916	.05694		
	Rural	78	.3938	.44444	.050323		
Frequency of Assessment:		**Levene's Test for Equality of Variances**		**t-test for Equality of Means**			
		F	**Sig**	**T**	**Df**	**Sig**	**Mean difference**
Average Frequency of assessment	Equal variance assumed	.837	.362	-.643	106	.02	-.05699
	Equal variance not assumed			-.750	74.79	.024	-.05699

Data in Table 1 shows that there was a significant difference in the frequency of assessment between schools situated in urban schools (M=.53639, SD=.311916) and rural schools (M=.39338, SD=.4444, t (106) = -. 643, *p*=.02. Consequently, the hypothesis that there is no statistical difference in the frequency of assessment between primary schools located in urban and those located in rural areas in Kakamega County was therefore rejected. These results suggest that more assessments by the Directorate of Quality Assurance and standards are carried out in schools located in urban schools. These findings were corroborated by the interview data that indicated the frequency of assessments, especially in far-flung primary schools, was hampered by budgetary constraints and poor accessibility. For instance, during one of the interview sessions, it was reported:

> *Aassessments of primary schools, especially in rural areas, are not as frequent as it should be. This is due to limited financial support and challenges associated with accessibility. Some schools are located in very remote parts!*

To determine whether the observed difference in DQAS assessment frequency between urban and rural primary schools persisted after controlling for other school characteristics, two multiple linear regression models were estimated. The dependent variable was the average annual frequency of routine assessments by the Directorate of Quality Assurance and Standards (2013–2017), as reported by headteachers. Model 1 presents the unadjusted (bivariate) relationship with school location alone. Model 2 adjusts for key controls: school type (public/private), school performance category (high-performing/low-performing), and school nature (co-educational/single-sex).

Table 2: Multiple Linear Regression Results – Predictors of Average Annual Frequency of DQAS Assessments

Variable	Model 1 (Unadjusted)		Model 2 (Adjusted)	
	B (SE)	p-value	B (SE)	p-value
Urban location (ref: rural)	0.412 (0.086)	<0.001	0.408 (0.084)	<0.001
Public school (ref: private)	—	—	0.129 (0.083)	0.124
High-performing school (ref: low-performing)	—	—	-0.011 (0.076)	0.885
Co-educational (ref: single-sex)	—	—	-0.037 (0.141)	0.794
Constant	0.394 (0.050)	<0.001	0.318 (0.079)	<0.001
R^2	0.178		0.215	
Adjusted R^2	0.170		0.184	
F-statistic (df)	23.1 (1,106)	<0.001	7.05 (4,103)	<0.001
N	108		108	

***Notes**: B = unstandardized coefficient; SE = standard error. Significance level: p < 0.05 (two-tailed). Full sample retained (N = 108).*

In the unadjusted Model 1, urban schools received approximately 0.412 more routine assessments per year than rural schools, and this large positive coefficient was highly statistically significant ($p < 0.001$). School location alone explained about 17.8% of the variation in assessment frequency ($R^2 = 0.178$), confirming that geographic accessibility was already a very strong bivariate predictor of how often DQAS officers visited schools during 2013–2017. This substantial gap aligns directly with the independent-samples t-test result ($p = 0.02$) and with interview data highlighting transport difficulties, poor rural road networks, and limited budgetary facilitation as major structural barriers to reaching remote schools.

In the adjusted Model 2, the coefficient for urban location remained almost identical in magnitude and retained full statistical significance ($B = 0.408$, $p < 0.001$), indicating that the strong urban advantage persisted even after controlling for school type, performance category, and co-educational status. None of the added controls reached statistical significance (all $p > 0.12$), and their inclusion only marginally improved overall explanatory power (R^2 increased from 0.178 to 0.215). These results demonstrate that urban/rural location was the single most powerful and robust determinant of DQAS visitation patterns in Kakamega County during the study period. The stability of the urban coefficient across models strongly suggests that the observed disparity was not merely a proxy for other school characteristics (such as ownership or performance), but reflected genuine logistical and resource-allocation realities — particularly the greater ease and lower cost of accessing schools in municipal and peri-urban zones compared to remote rural areas.

Discussion of Findings

The findings of the present study concur with those of other previously conducted study in the country, which established that assessments by the Directorate of Quality and Standards did not favour the schools located in rural areas. For instance, Chepkuto (2012) in a study entitled, "Contributions of quality assurance and standards to curriculum implementation in primary schools in Baringo District," Established that the primary schools were rarely assessed in the years. This was attributed to a poor transport system and inadequate quality assurance and standards officers. On the other hand, in the same year, Mosigisi (2012) reported a high frequency of assessments in Kasarani District, Nairobi City County.

The findings of the present study are also in line with those of previous studies conducted in other parts of the world that have highlighted the plight of rural schools on teacher management. One such study is by Aidan (2006). In a study undertaken in conjunction with the World Bank, entitled " Teachers for Rural Schools: A Challenge for Africa", Aidan (2006) concluded that schools in rural areas are less likely to be inspected because of inadequate financial support, lack of transport and geographic factors such as isolation, floods and bad infrastructure.

Similarly, Brenita (2020) and Tracy (2008) established that rural schools were uniquely disadvantaged on teacher supervision by quality assurance agencies. In separate studies entitled, "Instructional and managerial challenges of school Principals in small rural schools" and "Solving the rural school problem: New state aid standards and supervision of local school", Brenita (2020) and Tracy (2008) concluded that rural schools are seriously disadvantaged by the limited financial support and facilitation which resulted into inadequate external supervision by the quality assurance agencies.

5. Conclusion and Recommendations

5.1 Conclusion

The study established that geographical location significantly influences access to external school quality monitoring among public primary schools in Kakamega County. Findings showed that urban schools received quality assurance and standards assessments more frequently than rural schools, indicating persistent spatial inequalities in the delivery of supervisory and accountability services. Because regular monitoring is associated with stronger institutional compliance, improved instructional support, and timely identification of school management challenges, the lower frequency of visits to rural schools may disadvantage them in implementing national education standards. The study, therefore, concludes that although school quality monitoring systems exist in Kenya, their benefits are not equitably distributed across locations, with rural schools experiencing relatively reduced access to external professional support and oversight.

5.2 Recommendations

The Ministry of Education, Kenya, and county education offices should prioritize equitable deployment of quality assurance personnel by increasing the frequency of monitoring visits to rural and hard-to-reach schools in Kakamega County. Additional transport facilitation, fuel allocations, and decentralized supervisory units should be provided to enable officers to consistently reach remote institutions. Digital monitoring systems, including virtual follow-up platforms and electronic reporting tools, should complement physical visits where distance presents challenges. Further, staffing levels in quality assurance departments should be strengthened to reduce officer workload and improve coverage. School heads in rural areas should also be trained on internal quality assurance practices so that external monitoring gaps can be partially mitigated through stronger school-based self-evaluation systems.

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