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Research Article

# The Impact of School Administration on the Academic Achievement of Science Students

**Rajab Hassan Ahmed[1*], Kusuma Yusuf[2]**

[1] *Faculty of Education, Islamic University in Uganda. Mbale, Uganda.*
[2] *Fakultas Pendidikan, Universitas Muhammadiyah Surakarta. Surakarta, Indonesia.*

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***Corresponding Author:**
Rajab Hassan Ahmed
**Email:**
rhassan.ahmed@gmail.com

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**Abstract:** Education is a cornerstone of Uganda's national development, with science education prioritized in Vision 2040 to foster technological innovation, industrialization, and global competitiveness. However, disparities in resource allocation, inadequate teacher training, and weak administrative practices have hindered science education, particularly in rural schools. This study examines the role of school administration in shaping the academic achievement of science students in Uganda. Using a mixed-methods approach, data were collected from 15 schools, including urban areas like Kampala and rural districts such as Gulu and Mbale. The study involved 200 school administrators, 300 teachers, and 500 students, combining surveys and in-depth interviews to explore administrative practices, resource distribution, and teacher support. Findings reveal that effective school leadership significantly enhances science education outcomes, with urban schools outperforming rural ones due to better infrastructure, qualified teachers, and proactive administration. In contrast, rural schools face challenges including resource shortages, overcrowded classrooms, and weak leadership. The study underscores the need for targeted interventions to strengthen administrative capacities, reduce urban-rural disparities, and improve science education outcomes. It recommends equitable resource allocation, professional development for teachers, and evidence-based leadership practices. Future research should explore the long-term impact of administrative reforms through longitudinal studies and investigate the role of community and stakeholder involvement in supporting school administration.

**Keywords:** Academic Achievement, Academic Performance, Motivation, School Administration, Science Students.

## 1. Introduction

Education plays a fundamental role in the socio-economic development of a country, and in Uganda, the government has prioritized science education as a key driver of national growth and technological advancement. The integration of science education into Uganda's Vision 2040 underscores the importance of science education in building a skilled workforce capable of addressing the country's development challenges [1]. Science education is seen as a catalyst for technological innovation, industrialization, and global competitiveness, which are essential for achieving sustainable development [2].

Despite its importance, science education in Uganda faces persistent challenges. Many schools, especially in rural areas, lack the necessary resources to deliver quality science education. Inadequate laboratory facilities, inadequate teaching materials, and poorly maintained infrastructure limit students' ability to grasp practical and theoretical concepts in science subjects [3]. Furthermore, the disparity between urban and rural schools exacerbates these challenges, creating significant gaps in academic achievement among students across the country.

Another critical challenge is the shortage of qualified science teachers, especially in rural and underprivileged schools. Teachers are often untrained or under-trained in advanced scientific concepts and modern teaching methodologies, which affects their ability to engage students effectively. This problem is further compounded by the high teacher-student ratio in many schools, which leads to overcrowded classes and reduced individual attention to students [4]. These systemic issues underscore the need for strong school administration to address the challenges faced in science education.

The role of school administration in shaping the quality of education cannot be overstated. Effective school leadership impacts nearly every aspect of education, from curriculum implementation and teacher support to resource allocation and student discipline. School administrators are responsible for creating learning environments that foster academic excellence, particularly in science education, where practical application and critical thinking are critical [5]. Their leadership style, decision-making skills, and ability to manage resources effectively are critical to improving student outcomes.

School administrators also play a critical role in addressing educational disparities. By prioritizing equitable resource allocation, providing professional development for teachers, and implementing inclusive policies, administrators can bridge the gap between urban and rural schools. These efforts not only improve academic achievement but also contribute to broader societal goals, such as reducing poverty and promoting equity [6]. Strong administrative practices are essential to achieving these goals, particularly in the context of Uganda's education system.

Uganda's Vision 2040 highlights the importance of improving science education to achieve national development goals. The policy emphasizes the need for better management of the science curriculum, better teacher training, and improved infrastructure in schools. However, achieving these goals requires coordinated efforts from school administrators, policy makers, and other stakeholders. Without strong administrative leadership, these systemic improvements are unlikely to have significant impact [7].

The focus on science education aligns with Uganda's broader strategy to develop human capital and foster innovation. Science students form the foundation of a skilled workforce that drives industrialization, technological advancement, and economic growth. Therefore, understanding the factors that influence their academic performance, particularly the role of school administration, is critical to national development [8].

The challenges faced by the Ugandan education system underscore the urgency of addressing administrative inefficiencies. Poor leadership and weak management practices in schools often result in low teacher morale, inadequate resource utilization, and poor student learning outcomes. Improving these practices can significantly improve the quality of education, particularly in science subjects, which are critical to the country's development [9].

This study aims to analyze the impact of school administration on the academic performance of science students in Uganda. The study focuses on identifying key administrative factors, such as leadership style, resource allocation, teacher support, and school policies, that significantly influence student performance. By examining these factors, the study seeks to provide insights into how school administrators can improve academic outcomes in science education.

The findings of this study are expected to contribute to the understanding of how school administration influences academic achievement in Uganda. This study will provide actionable

recommendations for policymakers, school administrators, and education stakeholders to improve science education. By addressing administrative inefficiencies, this study aims to support efforts to improve the overall quality of education and reduce the gap between urban and rural schools.

This study is particularly important in the context of addressing educational disparities in Uganda. Rural schools often face greater challenges than urban schools, including limited access to resources, unqualified teachers, and lower student motivation. Identifying strategies to improve school administration can help bridge these gaps and ensure that all students, regardless of their location, have access to quality science education.

By focusing on the role of school administration, this study highlights the importance of leadership in education. It emphasizes the need for administrators to adopt evidence-based practices and innovative approaches to address the challenges facing the Ugandan education system. Strong leadership can drive systemic improvements that benefit not only science students but also the wider education sector.

This study also aims to provide a foundation for future research on educational management in Uganda. Although much has been written about the challenges facing the education system, research on the specific role of school administration in improving academic outcomes is limited. This study seeks to fill this gap and contribute to the body of knowledge on educational management.

Improving science education is not only a matter of national development but also a step towards global competitiveness. As Uganda seeks to build a knowledge-based economy, the importance of producing skilled graduates in science, technology, engineering and mathematics (STEM) fields cannot be overstated. Effective school administration is a critical factor in achieving this goal.

In conclusion, the role of school administration in shaping the academic achievement of science students is multifaceted and significant. This study provides an opportunity to explore how leadership, resource management and teacher support contribute to student success in the Ugandan education system. By identifying best practices and addressing challenges, this study aims to support efforts to improve science education and promote national development.

## 2. Literature Review

### 2.1. The Role of School Administration in Education

School administration plays a pivotal role in shaping the quality of education and student outcomes. Globally, effective school leadership and administration are recognized as key factors in ensuring the successful implementation of educational policies and curricula. Research in Sub-Saharan African countries highlights the influence of administrative practices on improving academic achievement and addressing systemic challenges in schools [10]. Strong leadership ensures that schools operate efficiently and meet the educational needs of students, particularly in resource-constrained environments.

Studies show that school administration significantly impacts curriculum implementation. Effective administrators ensure that teachers receive adequate support, including training and resources, to deliver the curriculum as intended. In Sub-Saharan Africa, where curriculum reforms are often introduced to align education with national development goals, administrators act as intermediaries between policymakers and teachers, facilitating smooth transitions and adaptation [11]. This role is crucial in subjects like science, where practical teaching methods and advanced resources are necessary for effective learning.

Teacher performance is another area where school administration has a profound influence. Administrators are responsible for creating an environment where teachers feel motivated, supported, and valued. Research suggests that schools with proactive leadership see higher levels of teacher engagement and performance, which directly correlates with improved student outcomes [12]. In Uganda, effective school administrators often prioritize professional development programs, enabling teachers to stay updated with the latest pedagogical approaches and scientific advances.

Student motivation is also closely linked to the quality of school administration. Administrators who foster a positive school culture, implement inclusive policies, and ensure the availability of learning materials contribute to higher levels of student engagement. In science education, where hands-on learning and experimentation are crucial, the provision of laboratory facilities and resources is often dependent on administrative prioritization [13]. Such efforts not only enhance learning but also inspire students to pursue careers in science and technology.

Comparative studies across Sub-Saharan Africa reveal that countries with strong school administrative systems tend to perform better in national and international assessments. For example,

schools in Kenya and Rwanda, which have invested heavily in training school administrators, report better academic performance among students compared to their counterparts in countries with weaker administrative frameworks [10]. These findings underscore the importance of leadership in achieving educational excellence.

Resource management is another critical function of school administration. Effective allocation and utilization of resources ensure that schools can meet the diverse needs of students and teachers. In Uganda, disparities in resource availability between urban and rural schools highlight the role of administrators in bridging gaps and ensuring equitable access to quality education [11]. This responsibility extends to managing financial resources, infrastructure, and teaching materials.

The relationship between school administration and teacher retention is also well-documented. Administrators who create a supportive and collaborative work environment are more likely to retain qualified teachers, particularly in rural areas where turnover rates are typically high. Retaining experienced science teachers is essential for maintaining continuity and quality in science education, as their expertise directly impacts student learning outcomes [12].

In addition to internal school management, administrators often serve as liaisons between schools and external stakeholders, such as government agencies, non-governmental organizations, and community groups. Their ability to advocate for school needs and secure additional resources plays a critical role in improving the quality of education. In Uganda, partnerships facilitated by school administrators have resulted in initiatives that have improved science education, including the provision of laboratory equipment and teacher training programs [13].

Policy implementation is another domain where school administration has significant influence. Administrators are tasked with translating national education policies into actionable strategies at the school level. In Uganda, where science education is a national priority, administrators play a critical role in aligning school practices with government goals, such as the promotion of STEM education under Vision 2040 [14]. Their leadership ensures that schools contribute to broader national development goals.

Effective school administration also addresses challenges related to student well-being, including absenteeism, discipline, and socio-economic barriers to education. Research shows that schools with strong administrative support are better equipped to address these challenges, creating an environment where students can focus on their studies. In science education, such support is critical, as it enables students to fully participate in laboratory activities and other experiential learning opportunities [11].

Globally, the leadership styles adopted by school administrators vary, with significant implications for educational outcomes. Transformational leadership, which emphasizes collaboration, innovation, and shared vision, is often associated with better academic performance. In Uganda, research shows that schools led by transformational leaders tend to perform better in science subjects, as these leaders encourage teachers and students to strive for excellence [14]. This leadership style also encourages the integration of technology into instruction, a critical factor in modern science education.

While the importance of school administration is widely recognized, challenges remain. Many administrators in Sub-Saharan Africa face constraints such as limited training opportunities, inadequate funding, and bureaucratic hurdles. Addressing these challenges requires systemic reform and increased investment in leadership development programs. Such initiatives can empower administrators to drive positive change and improve educational outcomes [12].

School administration is the cornerstone of an effective education system. Its impact extends across multiple dimensions, including curriculum implementation, teacher performance, student motivation, and resource management. By prioritizing strong leadership and addressing systemic challenges, countries like Uganda can improve the quality of science education and achieve their development goals. Future research should continue to explore innovative approaches to school administration, ensuring that schools remain responsive to the evolving needs of students and teachers.

### 2.2. Challenges in Science Education in Uganda

Science education in Uganda faces many challenges that undermine its effectiveness and students' academic achievement. One of the major challenges is the lack of adequate laboratory facilities in schools. Practical experiments are essential for understanding scientific concepts, but many schools, especially in rural areas, lack functional laboratories and essential equipment. Studies show that only 30% of schools in Uganda have well-equipped laboratories, leaving students in other schools to rely

solely on theoretical learning [15]. This limitation hampers students' ability to understand complex scientific concepts and reduces their competitiveness in regional and global science assessments.

Another significant issue is the lack of specific teacher training for science education. Science teachers in Uganda often do not receive adequate professional development to keep up with advances in scientific knowledge and pedagogical approaches. Studies highlight that teachers in many Ugandan schools struggle to deliver the science curriculum effectively due to gaps in their training, which negatively impacts students' learning experiences [10]. This problem is exacerbated in rural areas, where access to teacher training programs is very limited.

The availability of instructional materials is another significant challenge. Textbooks, laboratory manuals, and other learning aids are essential for effective science education, but many schools face severe shortages. A recent study found that, on average, five students share one science textbook in Ugandan schools [12]. These resource constraints make it difficult for students to engage deeply with the subject matter, leading to poorer academic outcomes, particularly on national exams.

Socioeconomic factors also play a significant role in shaping science education outcomes in Uganda. Poverty remains a pervasive problem, with many students unable to afford school fees, uniforms, and other necessities. Families in low-income households often prioritize basic survival needs over education, resulting in high dropout rates among students, particularly in rural areas [16]. This trend disproportionately affects girls, who often face additional cultural and financial barriers to pursuing education, including science subjects.

The resource gap between urban and rural schools further exacerbates the challenges in science education. Urban schools generally have better infrastructure, more qualified teachers, and greater access to instructional materials compared to rural schools. This disparity creates a significant achievement gap between students in urban and rural settings, as urban students are more likely to receive a higher quality science education [17]. Lack of resources in rural schools also discourages teachers from accepting or retaining teaching positions in these areas, perpetuating the cycle of disparity.

In addition to infrastructure challenges, large class sizes in many Ugandan schools negatively impact the quality of science education. Overcrowded classes make it difficult for teachers to provide individual attention to students, especially in practical subjects such as science, which often require personalized tutoring [13]. This problem is particularly prevalent in government schools, where limited funding and high enrollment rates exacerbate the problem.

Cultural attitudes toward science subjects also impact educational outcomes. In some communities, science is seen as a difficult and less relevant subject, leading to a lack of motivation among students to pursue science-related subjects. Research suggests that parental encouragement and community support for science education are often lower in rural areas compared to urban centers, further contributing to the low performance of rural students in science [10].

Gender gaps in science education are another pressing issue in Uganda. Despite efforts to promote gender equality in education, girls are still underrepresented in science subjects due to cultural biases, early marriage, and limited access to resources. Studies show that female students face additional barriers to participating in science classes, such as a lack of female role models and inadequate support from teachers [17]. Addressing these gaps is critical to promoting inclusive and equitable science education in Uganda.

Language of instruction also presents challenges in science education. Many students in Uganda are not fluent in English, which is the language of instruction in schools. This language barrier makes it difficult for students to understand scientific concepts and actively participate in lessons [16]. Teachers often face challenges in simplifying complex scientific terms to make them accessible to students, which can affect the depth and quality of instruction.

Policy implementation gaps further hamper progress in science education. Although Uganda has developed policies to promote science, technology, engineering, and mathematics (STEM) education under Vision 2040, implementation of these policies is often hampered by inadequate funding and poor coordination among stakeholders. Research highlights that many schools are unaware of government programs aimed at improving science education, limiting their ability to benefit from these initiatives [14].

Teacher absenteeism, a common problem in Ugandan schools, also impacts science education. When teachers are frequently absent, students miss out on important lessons, especially in subjects like science that require consistent instruction and hands-on engagement. Research suggests that

addressing teacher absenteeism can significantly improve science education outcomes, especially in rural areas [18].

Another challenge is the reliance on rote learning in many Ugandan schools. While rote learning may help students memorize facts, it does not foster critical thinking or problem-solving skills, which are essential in science education. Encouraging the adoption of inquiry-based and student-centered teaching methods can improve students' understanding of scientific principles and their application in real-world contexts [9].

Climate change and environmental factors also impact science education in Uganda. Schools in areas prone to flooding or drought are frequently disrupted, limiting students' access to education. These disruptions disproportionately affect schools in rural areas, whose infrastructure is less resilient to environmental challenges [10]. Incorporating environmental science into the curriculum can help students understand and address these issues, but such initiatives require additional resources and support.

Efforts to integrate technology into science education are limited in Uganda. While digital devices can enhance learning by providing access to virtual labs and interactive content, many schools lack the necessary infrastructure, such as computers and internet access. Bridging the digital divide is critical to modernizing science education and preparing students for the demands of the 21st century workforce [17].

The challenges facing science education in Uganda are multifaceted, encompassing infrastructural, socio-economic, cultural, and policy issues. Addressing these challenges requires a comprehensive approach that includes increasing investment in education, strengthening teacher training programs, and promoting gender equity. Future research should focus on identifying innovative solutions to these challenges, and ensuring that all students in Uganda have access to high-quality science education.

### 2.3. Key Administrative Factors Influencing Academic Achievement

Administrative factors play a significant role in shaping academic outcomes for students. Leadership style in school administration is one of the most studied influences on educational success. Transformational leadership, characterized by visionary and motivational practices, has been shown to improve teacher morale and student achievement in a variety of contexts [18]. In contrast, authoritarian leadership often creates a less conducive learning environment, as it limits collaboration and creativity among staff and students. However, research focused on Uganda has revealed limited insight into how particular leadership styles are implemented in its education sector.

Teacher support programs are another important administrative factor. Effective programs that focus on professional development, mentoring, and regular performance feedback contribute significantly to teacher efficacy and, consequently, student success. Research shows that teachers who receive adequate support from administrators are more motivated and better prepared to deliver quality instruction [14]. Despite these findings, there is insufficient evidence on how such programs are implemented in Ugandan schools, particularly in rural areas.

Resource management has also emerged as a key determinant of academic achievement. Equitable distribution of educational resources, such as textbooks, laboratory equipment, and teaching aids, significantly improves learning outcomes. Schools with strong resource management systems tend to outperform schools with resource deficits, as students have greater access to materials necessary for their academic success [13]. In Uganda, the resource gap between urban and rural schools raises questions about the effectiveness of current administrative strategies in addressing this inequity.

Parental involvement, facilitated by school administrators, also impacts academic achievement. Administrators who actively involve parents in school activities foster a collaborative environment that benefits students. Studies have shown that parental involvement is positively associated with higher academic performance, as it reinforces the importance of home education [10]. However, research on parental involvement in Ugandan schools, particularly in underprivileged areas, is scarce.

Communication practices in schools are critical to ensuring alignment between administrators, teachers, and students. Transparent and open communication channels allow for effective dissemination of policies, goals, and expectations. Research highlights that schools with strong communication practices report better student outcomes compared to schools with weak communication structures [11]. However, research examining the communication practices of Ugandan school administrators is limited.

Administrative focus on student motivation is another important factor. Administrators who prioritize initiatives to inspire and engage students, such as recognition programs and extracurricular activities, foster an environment that promotes academic excellence. Evidence from other African countries suggests that student motivation is a strong predictor of academic achievement [13]. However, there is a lack of research exploring how Ugandan school administrators address this aspect of student engagement.

Financial management by school administrators also has a direct impact on academic outcomes. Schools with effective financial practices are able to allocate resources strategically, ensuring that essential needs such as teacher salaries, infrastructure maintenance, and instructional materials are met. Research shows that good financial management is correlated with improved student performance [15]. However, schools in Uganda often face financial constraints that challenge administrators' ability to implement these practices effectively.

Policy implementation is another area where administrators influence academic outcomes. Administrators who effectively implement national education policies, such as curriculum standards and teacher evaluation systems, contribute to higher levels of student achievement. Studies underscore the importance of aligning school policies with national education goals to achieve optimal outcomes [12]. In Uganda, research on the role of administrators in translating national policies into actionable strategies is limited.

Teacher-student relationships are also shaped by administrative policies and practices. Schools that foster positive interactions between teachers and students create supportive environments that enhance learning. Administrators play a critical role in setting the tone for these relationships through policies that foster respect, inclusion, and collaboration [17]. Despite its importance, the impact of Ugandan administrators on teacher-student dynamics has not been fully explored.

Infrastructure development and maintenance is another important area of focus for school administrators. Well-maintained classrooms, laboratories, and libraries provide a learning environment that supports academic achievement. Research shows that schools with better infrastructure report higher student performance [11]. However, many Ugandan schools struggle with inadequate facilities, highlighting the need for more effective infrastructure management strategies.

School culture, shaped by administrative leadership, significantly impacts student achievement. Administrators who promote a culture of high expectations, collaboration, and accountability create an environment where students are more likely to excel. Studies have shown that a strong school culture is positively correlated with academic success [40]. In Uganda, there is limited research on how administrators foster such a culture in schools.

The role of data-driven decision-making in school administration has gained attention in recent years. Administrators who use data to identify areas for improvement and track progress are better equipped to implement effective interventions. Research emphasizes that data-driven practices improve student achievement by ensuring that resources and efforts are directed to areas of greatest need [14]. However, the extent to which Ugandan school administrators adopt a data-driven approach remains unclear.

Administrators' own professional development is an important factor influencing their effectiveness. Training programs that equip administrators with leadership, financial management, and conflict resolution skills contribute to better school performance. Studies highlight that well-trained administrators are more likely to implement innovative practices that improve academic outcomes [15]. In Uganda, more research is needed on the availability and impact of such programs.

Equity-focused administration is particularly relevant in a diverse context such as Uganda. Administrators who prioritize equitable access to resources, opportunities, and support for all students, regardless of their background, contribute to reducing achievement gaps. Research underscores the importance of equity-focused policies in improving outcomes for marginalized groups [19]. However, studies exploring equity-focused administration in Uganda are limited.

Collaboration with external stakeholders, such as local governments and nongovernmental organizations (NGOs), is another administrative strategy that influences academic outcomes. Partnerships with these stakeholders can provide schools with additional resources, training, and support. Research shows that schools that actively collaborate with external partners report better performance compared to schools that operate separately [20]. In Uganda, there is a lack of research examining the role of such collaboration in improving science education.

## 3. Methodology

This study used a mixed methods approach, combining quantitative and qualitative data to provide a comprehensive understanding of how school administration influences science students' academic achievement in Uganda. The study used case studies from schools in urban and rural Uganda, ensuring a balanced perspective from different regional and school contexts.

Data were collected through a survey addressed to school administrators, teachers, and students. The survey focused on administrative practices, resource allocation, teacher support, and perceived impact on academic achievement in science education. In-depth interviews were also conducted with education officials to explore policy implications and systemic challenges in the Ugandan education system.

The study used a stratified sample to ensure representation across regions (urban and rural) and school types (public and private). Respondents included 200 school administrators, 300 teachers, and 500 students across 15 selected schools in Uganda, including urban areas such as Kampala and rural districts such as Gulu and Mbale.

## 4. Finding and Discussion

### 4.1. Overview of Science Students' Academic Performance in Uganda

The academic performance of science students in Uganda varies across different regions and school types. The analysis shows that students in urban areas, such as Kampala, tend to outperform their rural counterparts in districts such as Gulu and Mbale. The data reveals that urban schools generally have better academic outcomes, with science students achieving higher scores in both theoretical and practical assessments.

Table 1. Academic Performance of Science Students in Urban and Rural Schools

| School Location | Average Science Performance (%) |
|---|---|
| Urban (Kampala) | 75% |
| Rural (Gulu) | 60% |
| Rural (Mbale) | 58% |

Figure 1 displays the average science performance across urban and rural regions in Uganda, highlighting the performance disparity between Kampala (urban) and rural districts like Gulu and Mbale.

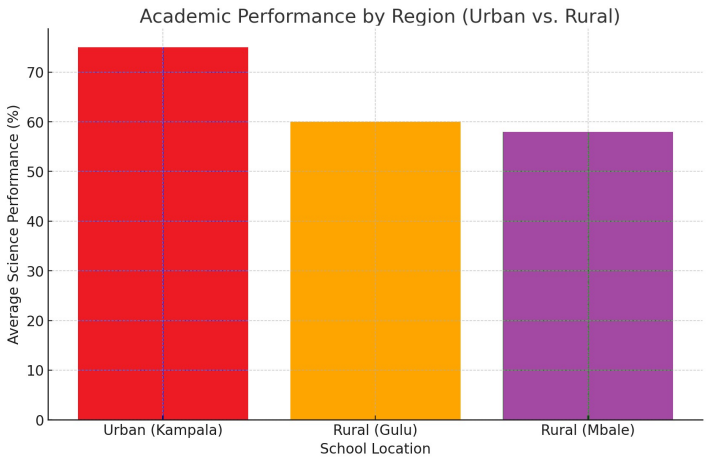


Figure 1. Academic Performance by Region (Urban vs. Rural)

A clear trend shows that urban schools have access to better infrastructure, teaching resources, and trained teachers, which contributes to their higher performance. In contrast, rural schools often face challenges such as overcrowded classrooms and insufficient educational resources, which hinder students' performance in science subjects.

### 4.2. Impact of School Administration on Academic Achievement

School administration plays a critical role in shaping science students' academic achievement. Effective leadership, particularly in resource management and teacher support, has a significant positive impact on student outcomes. In schools with proactive and well-organized administrators, students tend to perform better because of consistent access to instructional materials, well-maintained laboratories, and professional development opportunities for teachers.

Respondents from schools with strong administrative leadership, such as those in Kampala, reported that their administrators prioritize teacher training and ensure that students have adequate access to science equipment. On the other hand, schools in districts such as Gulu and Mbale with less effective administrations struggle with a lack of instructional materials and inconsistent teacher support.

Table 2. Administrative Practices and Student Science Performance

| School Location | Leadership Effectiveness | Teacher Support | Resource Availability | Average Performance (%) |
|---|---|---|---|---|
| Urban (Kampala) | High | High | High | 75% |
| Rural (Gulu) | Low | Medium | Low | 60% |
| Rural (Mbale) | Low | Low | Medium | 58% |

Figure 2 shows how administrative practices such as leadership effectiveness, teacher support, and resource availability are rated in different regions.

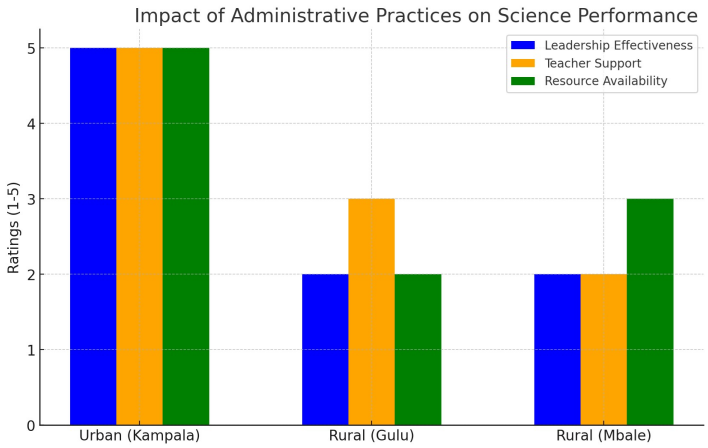


Figure 2. Impact of Administrative Practices on Science Performance

Figure 2 reflects the correlation between leadership effectiveness and student academic performance. Schools with better leadership and resource management demonstrated significantly higher levels of performance.

### 4.3. Regional Disparities in Administrative Effectiveness

The study found substantial disparities in administrative effectiveness between urban and rural schools. Urban schools, particularly in Kampala, benefit from stronger administrative systems, which include regular monitoring of instructional practices and greater access to professional development programs for teachers. These schools also have better infrastructure and greater access to educational resources.

In contrast, rural schools often suffer from weak leadership due to factors such as lack of administrative training, limited resource allocation, and inadequate support for teachers. Administrators in rural areas report difficulties in managing resources and ensuring effective teaching, which contributes to lower academic performance in science subjects.

Table 3. Comparison of Administrative Effectiveness (Urban vs. Rural)

| School Location | Leadership Effectiveness | Resource Allocation | Teacher Support |
|---|---|---|---|
| Urban (Kampala) | High | High | High |
| Rural (Gulu) | Low | Medium | Low |
| Rural (Mbale) | Low | Medium | Medium |

Figure 3 highlights the differences in administrative effectiveness, such as leadership and resource allocation, between urban and rural areas.

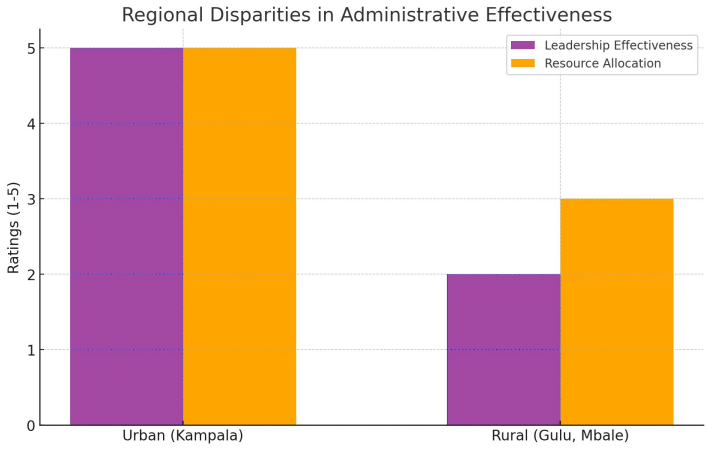


Figure 3. Regional Disparities in Administrative Effectiveness

Figure 3 shows that urban schools tend to have stronger leadership and more effective resource allocation, which contributes to better student outcomes.

### 4.4. Challenges Faced by School Administrators

School administrators in both urban and rural schools face several systemic challenges. These challenges include inadequate funding, limited training opportunities, and lack of support from policymakers. In rural areas such as Gulu and Mbale, administrators struggle to secure sufficient resources to meet the needs of their students. Furthermore, there is often a lack of professional development programs to equip administrators with the skills needed to address the unique challenges they face. Administrators also report difficulties managing large numbers of students in overcrowded classrooms, which impacts their ability to provide individualized attention. The shortage of qualified teachers in rural schools further compounds the problem, as administrators find it difficult to fill vacancies with trained professionals.

Table 4. Challenges Faced by School Administrators

| Challenge | Urban Schools (Kampala) | Rural Schools (Gulu, Mbale) |
|---|---|---|
| Funding | Adequate | Insufficient |
| Training Opportunities | Available | Limited |
| Teacher Shortage | Low | High |
| Overcrowded Classrooms | Low | High |