

INFLUENCE OF LEARNING AGILITY OF SCHOOL ADMINISTRATORS ON KCSE PERFORMANCE AMONG DAY SECONDARY SCHOOLS IN GATUNDU SOUTH SUB- COUNTY KIAMBU COUNTY, KENYA

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ABSTRACT

The proficiency of school administrators in terms of learning agility, which encompassed qualities such as adaptability, curiosity, and the ability to learn, unlearn, and relearn, stood as a pivotal and transformative factor in ensuring the growth and adaptability of educational institutions. Secondary schools, in particular, grappled with a significant shortage of teachers, impeding their ability to complete the syllabus in a timely manner. This disconcerting trend raised significant concerns among all stakeholders, pointing to a critical need to empirically uncover the underlying causes of this troubling disparity in students' academic performance. This research examined the relationships between the mental agility and people agility of school administrators as they influence student performance at day secondary education levels in Gatundu South Sub County. The research utilized the theories of Contingency theory along with Dynamic Capability theory and Resource-Based View (RBV) Theory for its foundation. The research design along with a quantitative approach was selected for this study. The research examined day secondary schools based in Gatundu South Sub County yet located inside Kiambu County. A total of 318 school administrators formed the unit of observation comprising 23 principals, 37 deputy principals, 122 heads of departments (HODs), 92 Form Four school leaders, and 44 deans of students. A stratified random sampling technique selected 77 participants because it included (13) principals and (21) deputy principals and (68) heads of departments (HODs) and

(51) leaders in Form Four and (25) deans of students. The data collection method included structured questionnaires and interviews with guidance. The pilot survey consisted of a zero percent sample representation but the supervisor reviewed research tools to enhance their content clarity and construct adequacy and application. The selected instrument demonstrated reliability by using Cronbach's Alpha Coefficient as the measuring method. The researchers used content analysis as their method of analysis for interview data with the results presented in narrative form. The quantitative data analysis relied on Statistical Package for Social Sciences (SPSS Version 28.0) for processing. A coding system was implemented for data entry purposes while all finished questionnaires received reference. The statistical analysis used descriptive methods that included mean values as well as frequency distributions and standard deviations and percentage distributions to study sample traits and data trends. The multiple linear regression analysis determined the importance of all independent variables. The study results were displayed through both tables and charts. In terms of mental agility, respondents showcased a strong capability to critically analyze situations and adapt their strategies accordingly. The study recommends that educational authorities should establish ongoing professional development programs specifically designed to enhance the learning agility of school leaders. Additionally, mentorship initiatives should be implemented, pairing experienced administrators with those who

are less experienced. Moreover, the study recommends that schools should adopt performance metrics that evaluate not only academic achievements but also the

processes and practices leading to those outcomes.

Keywords: Learning Agility, Adaptability, Mental Agility, People Agility, Student Performance.

INTRODUCTION

Performance, in the context of this study, pertains to the ability of an organizational unit to meet its established goals through sustained dedication, effective management, and sound governance. Achieving steady and optimal performance is critical for organizations to maximize their earnings and promote growth and progress (Yalçın & Özgenel, 2021). The contemporary world, characterized by rapid technological advancements and globalization, exerts significant pressure on individuals, societies, and organizations. Educational institutions, particularly, are profoundly affected by the evolving nature of society and the challenges posed by a Volatile, Uncertain, Complex, and Ambiguous (VUCA) environment, driven by exponential technological progress (Özgenel, & Asmaz, 2022).

In the realm of education, the significance of leadership came to the forefront in the early 20th century when the principles of scientific management were introduced to enhance the quality and quantity of outcomes in the business sector (Yazıcı, Özgenel, Koç, & Baydar, 2022). Consequently, advancements in the business world tend to reverberate within the educational sector, especially concerning leadership practices and behaviors that have far-reaching implications for organizational success. A relatively new concept, learning agility, has gained traction over the past two decades, primarily through research in leadership and talent development. It serves as a critical determinant in identifying high-potential individuals across various fields and industries (Ragas & Culp, 2021). The concept was first defined by Lombardo and Eichinger (2000) in their study "High Potentials as High Learners." They emphasized the relationship between learning and performance, positing that identifying agile, high-potential employees who can learn is crucial for enhancing organizational performance. Moreover, they suggested that learning agility is a prerequisite for high potential, and individuals with high research potential often exhibit high levels of learning agility (Alliou & Mourdi, 2023).

To sustain organizational success, companies must develop agility, which is primarily achievable through agile leaders. These leaders support organizational change, boost productivity, adapt to evolving circumstances, and overcome inertia (AlTaweel & Al-

Hawary, 2021). In a VUCA world, agile leadership involves swiftly providing effective solutions, adapting skills to different situations, and demonstrating flexible behaviors. Research has consistently shown the beneficial impact of managers' agile leadership qualities on both organizations and their employees, emphasizing the positive influence on various aspects of organizational life (Abbasi & Ruf, 2020). Agile leaders are known for their intellectual acumen in understanding complex problems, leveraging others' ideas, considering the bigger picture, and managing tensions arising from conflicting needs. They approach problems with creative solutions, effectively manage conflicts, and readily learn from challenging work experiences, motivating and inspiring employees with ease (Özdemir, 2023).

The concept of learning agility revolves around four main elements: high-level cognitive processes in human behavior, the evaluation of lessons learned from experiences, and the application of these aspects seamlessly (De Meuse, 2017). Learning agility enables individuals to experiment and learn rapidly until desired results are achieved, thereby facilitating the execution of tasks at various organizational levels (Yazıcı, 2020). Furthermore, research results suggest that learning agility is a distinct construct, independent of personality and IQ (Klopper & Pendergast, 2017). They identified four factors defining learning speed and different aspects of learning agility: people agility and mental agility.

Globally, school leadership has been recognized as a critical factor influencing educational outcomes. In countries such as the United States, Canada, and Australia, empirical studies have established a strong link between effective school leadership and student academic performance, especially in underperforming schools (Hallinger & Heck, 2020). For example, in Australia, school leaders who demonstrate high adaptability and a learning-oriented mindset have been shown to create school environments that foster innovation, teacher collaboration, and student success (Duignan, 2022). Similarly, research in the UK and the US has identified leadership agility—including the ability to navigate change, learn from experience, and manage stakeholder relationships—as essential for driving sustained school improvement (Hopkins, 2020).

In African contexts, studies from countries such as Nigeria, Ghana, and South Africa reflect a growing concern over how leadership competencies influence student achievement amid systemic educational challenges. For instance, Igwe and Chidi (2021) found that in Nigerian secondary schools, principals who adopted participative and transformational leadership styles reported better academic outcomes. In Ghana, a study by Abonyi and Sofo (2021) concluded that headteachers' ability to manage change and communicate effectively had a direct impact on curriculum implementation and examination performance. Meanwhile, in South Africa, school leaders' responsiveness to rapid policy changes and socio-economic inequalities has been cited as a critical factor in learners' academic trajectories (Bush & Glover, 2020).

Turning to the Kenyan context, national examination results—particularly the Kenya Certificate of Secondary Education (KCSE)—serve as a key benchmark for evaluating school performance. However, despite the country's emphasis on quality education and curriculum reform, disparities in KCSE performance remain evident across counties. Factors such as teacher shortages, inadequate infrastructure, and weak leadership continue to influence outcomes in many public secondary schools. Despite the generally good performance of students in the Kenya Certificate of Secondary Education (KCSE), Kiambu County's results compared to neighboring counties remain concerning. For four consecutive years, Kiambu County consistently ranked lowest in the province for KCSE academic performance (PDE-central, 2017-2020 KCSE result analysis). The significant disparities in academic performance, including mean scores and grades qualifying for university admission, have raised questions, as many candidates achieved lower grades (Oyugi & Gogo, 2019).

A common issue in many Kenyan secondary schools is the uneven distribution of academic achievements, with a few schools excelling while the majority perform poorly. Despite its economic advantages, high literacy rate, and admission of top-performing KCPE candidates, Kiambu County was ranked 37th out of 47 counties in the 2012 KCSE national examination analysis, with the lowest overall performance index in the Central region of Kenya (Ministry of Education, 2022). This regional analysis positioned Kiambu County below neighboring counties like Nyandarua and Kirinyaga, indicating a stark underperformance (performance index of 28.117322). Moreover, Gatundu South Sub County has been found to be the least performing of all the Sub Counties in Kiambu County. The role of school principals' leadership styles is a crucial factor affecting a school's efficacy and performance (Cobanoglu & Yurek, 2018). Principals who exhibit creativity, innovation, and entrepreneurship are seen as instrumental in enhancing school effectiveness and development. Leadership styles of school principals play a determining role in school success. As a result, the investigation of learning agility of school administrators on KCSE performance has garnered attention.

Gatundu South Sub County was selected as the focus area due to its persistently low KCSE performance within Kiambu County, despite having access to similar educational resources as other sub-counties. According to the Kiambu County Director of Education (2022), the sub-county consistently ranks among the lowest in the county in terms of mean scores and university transition rates. These concerning trends highlight the need to explore school-level leadership factors—such as learning agility—that may be influencing student outcomes in this region.

Statement of the Problem

The proficiency of school administrators in terms of learning agility, which encompasses qualities such as adaptability, curiosity, and the ability to learn, unlearn, and relearn, stands as a pivotal and transformative factor in ensuring the growth and adaptability of educational institutions (Howard, 2022). The performance of day secondary schools, spanning

dimensions of academic achievement, teacher effectiveness, and overall school management, functions as a vital litmus test for the quality of education imparted to the students in the region. Yet, the extent to which the learning agility of school administrators influences the multifaceted dimensions of KCSE performance remains a subject that merits rigorous and comprehensive investigation.

It is worth noting that the sub county in question found itself in the unenviable position of being ranked last among the 2 sub counties in the region in the previous year's KCSE examinations. Secondary schools, in particular, grapple with a significant shortage of teachers, impeding their ability to complete the syllabus in a timely manner (Muli, Piliyesi & Koros, 2023). This chronic educational issue manifests itself in the underwhelming academic performance of students in national examinations throughout Kiambu County. For instance, the mean grade for KCSE results in the county has consistently fallen below the minimum requirement for university entry, as evidenced by the results from 2011 to 2021: 4.23 (D+), 4.20 (D+), 4.38 (D+), 4.46 (D+), 4.57 (C-), 4.75 (C-), 4.32 (D+), 4.44 (D+), 4.66 (C-), 4.11 (D+), and 3.72 (D+), respectively (Kiambu County Director of Education Office, 2022). This disconcerting trend has raised significant concerns among all stakeholders, pointing to a critical need to empirically uncover the underlying causes of this troubling disparity in students' academic performance.

Furthermore, the educational landscape has been subject to constant and profound changes. The pressures of change have necessitated educational leaders and teachers who can adeptly navigate these challenges. Leaders who exhibit qualities such as curiosity, a propensity for questioning, experiential learning, and flexible application of knowledge are vital to making learning an accessible and enjoyable process. The effective application of learning agility is an invaluable resource for educational leaders. However, the lack of clarity about which experiences are genuinely developmental and the varying definitions of individuals with learning agility highlight the need for further exploration (Buffone, 2021).

A review of the existing literature reveals that most studies on learning agility focus on leaders in for-profit organizations (De Meuse, 2017). Investigating learning agility within the educational sector, particularly in school settings, could significantly enrich the overall understanding of this concept. Such research would help shape the structure, definition, and explanation of learning agility. The findings would also serve as a valuable resource for future studies. Therefore, this study aims to explore and assess the levels of learning agility among school administrators, including principals and assistant principals, by examining various relevant variables. The research sought to provide a detailed understanding of how learning agility manifests among educational leaders and its potential impact on the educational environment.

Objectives of the Study

The specific objectives of this study were:

- i. To assess the influence of mental agility of school administrators on KCSE performance among day secondary schools in Gatundu South Sub County.

- ii. To establish the influence of people agility of school administrators on KCSE performance among day secondary schools in Gatundu South Sub County.

Theoretical Framework

The study was anchored on the Contingency theory. Fred Fiedler, a renowned psychologist, introduced Contingency Theory in the 1960s, revolutionizing the field of organizational leadership by challenging the prevailing notion that there was a universally effective way to manage organizations. Instead of advocating for a singular leadership model, Contingency Theory posits that the effectiveness of a leader is dependent upon how well their leadership style matches the specific situation they face. Leadership effectiveness is not determined solely by a leader's traits or behaviors but by the interplay between the leader's style and situational variables, such as the nature of the task, organizational environment, follower characteristics, and external conditions.

Fiedler emphasized that situational factors—such as the leader-member relations (the degree of trust and respect between leaders and followers), task structure (the clarity and specificity of the task at hand), and position power (the amount of authority the leader possesses)—significantly influence which leadership approach will yield optimal results. As such, successful leaders are those who can diagnose the contextual factors and adapt their strategies and behaviors to align with the demands of their environment. In contrast, a leadership style that is highly effective in one context may prove inadequate or even detrimental in another.

In the context of education, particularly within the dynamic landscape of Kenyan secondary schools, Contingency Theory offers a crucial lens for understanding school leadership. Educational institutions, like other organizations, operate in highly variable environments marked by shifting government policies, changing student demographics, evolving societal expectations, fluctuating resource availability, and technological advancements. These factors create an ever-changing landscape where static leadership models are insufficient. This theory is particularly relevant for the current study, which seeks to investigate the influence of mental agility of school administrators on KCSE performance among day secondary schools in Gatundu South Sub County. In rapidly evolving educational environments, the ability of school administrators to adjust their leadership practices in response to contextual changes is pivotal in ensuring organizational success, improved teaching and learning outcomes, and, consequently, better KCSE performance.

Schools today face a wide range of internal and external pressures. Internally, they must address issues such as resource constraints, staff turnover, student diversity, and evolving curriculum demands. Externally, they contend with fluctuating government policies, societal expectations for educational outcomes, technological disruption, and economic factors influencing school funding and resource allocation. According to Contingency Theory, the agility of school leaders to adapt their management styles based on these variables is a determinant of school effectiveness and student achievement.

By emphasizing the need for flexibility and adaptability in leadership practices, Contingency Theory highlights the necessity for school administrators to eschew rigid, one-size-fits-all leadership models. Instead, it calls for a responsive leadership style that dynamically adjusts based on the prevailing circumstances. For instance, a principal might adopt a more directive leadership style when managing inexperienced teachers who require close supervision but shift toward a more delegative style with experienced teachers who value autonomy.

Moreover, Contingency Theory underscores the importance of diagnosing situational variables accurately. For school administrators, this means cultivating skills not only in instructional leadership but also in environmental scanning, stakeholder analysis, and strategic planning. It involves understanding the unique needs of their schools, anticipating challenges, and leveraging opportunities to enhance school performance.

In applying the principles of Contingency Theory, school administrators in Gatundu South Sub County can improve their institutions' responsiveness to change and enhance academic outcomes. For example, an administrator facing severe teacher shortages must not only devise staffing solutions but also adapt instructional models, deploy innovative pedagogies, and mobilize community support—all tailored to the school's unique context. Similarly, in a school experiencing rapid growth in student enrollment, the administrator may need to shift leadership focus toward infrastructure expansion, resource reallocation, and organizational restructuring.

Furthermore, Contingency Theory provides a strong theoretical justification for the promotion of leadership development programs that focus on building administrators' diagnostic abilities, flexibility, and strategic thinking. Rather than training administrators to apply predetermined leadership formulas, professional development grounded in Contingency Theory would emphasize critical situational assessment, contextual decision-making, and adaptive leadership behavior.

An essential implication of this theory is that successful educational leadership is not static; it is characterized by continuous learning, self-reflection, and adaptation. This dynamic approach is critical in educational settings where change is constant and inevitable. It aligns perfectly with the concept of learning agility, a key theme in this study, and underscores the strategic importance of cultivating adaptable leadership competencies among school administrators.

RESEARCH METHODOLOGY AND DESIGN

Research Methodology

The study adopted a quantitative research approach, which enabled the collection and analysis of numerical data to explore patterns, trends, and the strength of relationships among the variables of interest. This approach was justified because it allows for objectivity, generalizability, and the use of statistical methods to test hypotheses about the effect of

school administrators' learning agility on KCSE performance. While a qualitative element was included through interviews for added depth, the primary emphasis on quantitative methods ensured that the results would be robust, replicable, and capable of informing evidence-based policy and practice.

Research Design

This research employed a descriptive research design, which is appropriate for studies aiming to systematically describe characteristics of a population and establish relationships among variables without manipulating the study environment (Ørngreen & Levinsen, 2017). The descriptive design was chosen because it provides an accurate profile of how the dimensions of learning agility manifest among administrators and how these traits relate to KCSE performance. This design allows for the use of surveys and interviews to collect factual information from a large group of respondents, making it well-suited for addressing the study's objectives in the natural school setting without interfering with daily operations.

Target Population

This study targeted the 23-day secondary schools in Gatundu South Sub County, which was situated within Kiambu County. The unit of observation was the school administrators, comprising principals, deputy principals, heads of departments (HODs), and deans of students. The research also looked into the school leaders in Form Four.

Sampling Procedures and Sample Size

A sample refers to the element of a study representing the actual population or the elements to be examined in a study that inferred the entire population (Newman & Gough, 2020). A scientific method of selecting a sample size from the whole population is defined as a technique for sampling (Nayak & Singh, 2021). In this study, Yamane (1967) formula was adopted in computation of the sample size.

$$n = \frac{N}{1 + N(e)^2}$$

Where:

'n' = sample size,

'N' = population

'e' = the confidence level

1 = constant.

This study assumed the level of precision of 5%

The sample size is:

$$n = \frac{318}{1 + 318(0.05)^2}$$

$$n = 177$$

The sample size therefore was 77 respondents. A stratified random sampling technique was used for this study to ensure fair representation of all key subgroups within the target population. The target population was divided into strata based on their administrative roles: principals, deputy principals, heads of departments, deans of students, and student leaders.

Principals and Deputy Principals were all included due to their small numbers and pivotal leadership role, justifying a near-census approach to maximize insights about top-level leadership agility. On Heads of Departments (HODs) and Deans of Students, stratified random sampling ensured that views from mid-level managers responsible for day-to-day curriculum and student affairs were proportionally represented. This minimizes bias and enhances the validity of inferences about leadership agility across management tiers. Moreover, school Leaders (Form Four students) were selected purposively within strata to ensure that feedback came from senior students with direct experience of school leadership influence on exam preparation and academic culture.

Table 1: Sample Size

Category	Target Population	Ratio	Sample Size
Principals	23	0.557	13
Deputy Principals	37	0.557	21
HODs	122	0.557	68
Dean of Students	44	0.557	25
School leaders	92	0.557	51
Total	318		177

Research instruments

Structured questionnaires was employed to collect primary data. Closed-ended questions were utilized, allowing respondents to select from predetermined options. Each study objective was addressed through separate sections in the questionnaire, covering respondents' profiles and questions related to each study variable. The Likert scale was utilized, ranging from Strongly Disagree (1) to Strongly Agree (5). Questionnaires are advantageous due to their cost-effectiveness, time efficiency, and minimal administrative requirements. Additionally, they facilitate straightforward data compilation post-collection. Moreover, qualitative data was gathered using an interview guide. The instruction manual included open-ended questions designed to elicit students' opinions on the effect of learning agility of school administrators on school's academic performance among day secondary schools in Gatundu South Sub County, Kiambu County, Kenya.

Piloting of Research Instruments

Pilot testing involves testing the research questions on a population with similar traits to the main study population (Mohajan, 2018). It aims to assess the reliability and validity of the research tool. The pilot survey involved a 0% representation of the sample size. Participants were asked to respond to similar questions on two occasions: initially and without prior notification the following day. This approach enabled the identification of any changes in responses over time.

Testing for Validity and Reliability

To ensure that the research instruments were technically sound and capable of accurately capturing the intended information, careful attention was given to both validity and reliability. Validity refers to the degree to which a test measures what it claims to measure,

and for this study, both the questionnaire and the interview guide needed to be valid to be effective tools for data collection.

To strengthen the validity of the instruments, the researcher sought the guidance and feedback of a project supervisor, who conducted a thorough review of the tools. The review focused on assessing the instruments' relevance, clarity of content, and overall design from a methodological standpoint. Based on the supervisor's feedback, refinements were made to ensure that the questions would genuinely capture the intended parameters and were clearly understood by the respondents. The supervisor's formal approval confirmed the content validity of the tools, ensuring that the instruments were well-constructed and appropriately aligned with the research objectives.

In addition to supervisory feedback, the researcher also engaged an external expert to independently evaluate the content validity. The expert's role was to assess whether the items within the questionnaire and interview guide adequately covered the core concepts being investigated. As noted by Taherdoost (2016), content validity is crucial because it ensures that all respondents interpret the items consistently, thereby minimizing the risk of misunderstandings or misinterpretations. Through this dual process of review and expert evaluation, the researcher worked diligently to maximize the instruments' validity.

Reliability—the consistency of measurement over time—was also a key focus of instrument testing. To assess reliability, the researcher employed the test-retest method, which involved conducting a pilot study with a small group of key informants prior to the full administration of the questionnaires. This method allowed the researcher to observe whether the instruments would produce stable and consistent results when administered more than once to the same participants under similar conditions.

To further quantify the reliability of the instruments, Cronbach's Alpha Coefficient was calculated for each research objective. Cronbach's Alpha is a widely used statistic for measuring internal consistency, indicating how well the items within a scale are correlated and thus reliably measuring the same underlying construct. According to Singh (2017), a Cronbach's Alpha value of 0.7 or higher is generally considered acceptable, signifying that the instrument produces reliable results.

By carefully piloting the instruments and calculating Cronbach's Alpha for each research dimension, the researcher was able to confirm that the tools were both valid and reliable. This rigorous approach to instrument testing provided a strong foundation for ensuring that the findings of the study would be trustworthy, credible, and replicable.

Data Collection Procedures

The researcher sought a letter of authorization from the parastatals for the collection of data after obtaining a letter of introduction from the university. To improve the response rate, ethical issues were taken into consideration in this study. The researcher explained to the

management the purpose of the research. The respondents were assured by the researcher of the confidentiality and anonymity of their identities. The questionnaires were administered using a "drop and pick" later method.

Data Analysis Procedures

Once data were collected from the field, the first critical step was to systematically filter, sort, and clean the information to ensure alignment with the study's objectives. This initial preparation was vital for preserving the integrity of the dataset, eliminating errors or inconsistencies, and ensuring that subsequent analyses accurately addressed the research questions and hypotheses.

Qualitative data, gathered from interviews and focus group discussions, were analyzed using content analysis. This method was chosen because it allows for the systematic coding, categorization, and interpretation of textual data, making it possible to identify recurring patterns, central themes, and underlying meanings relevant to the study's focus. Thematic insights were then organized into narrative summaries, which not only captured the richness and context of participants' experiences but also complemented and deepened the understanding of the quantitative trends. This approach ensured that the voices and perspectives of respondents added valuable depth and explanation to the numerical results. Quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS), Version 28.0, which is well-regarded for its capacity to handle complex datasets and conduct robust statistical tests efficiently. Prior to analysis, all questionnaire items were coded, and responses were carefully cross-checked for accuracy to minimize entry errors and inconsistencies.

Descriptive statistics — including frequencies, means, standard deviations, and percentages — were used to summarize demographic information and provide an overview of respondents' patterns of responses. This helped to present clear, concise snapshots of the sample and to highlight general trends in perceptions of learning agility and school performance. The use of Likert scale items facilitated the quantification of subjective attitudes and behaviors, enabling these to be meaningfully analyzed and presented in tables and charts for clarity and ease of interpretation.

Beyond descriptive analysis, the study applied regression analysis to test the research hypotheses at a significance level of 0.05. Regression was appropriate because it measures the strength and direction of relationships between the independent variables (mental agility, people agility) and the dependent variable (KCSE performance). This allowed the study to determine not just whether learning agility influences academic outcomes, but precisely how much each dimension contributes to explaining variations in KCSE results.

Combining descriptive, inferential, and qualitative analyses strengthened the study's findings through methodological triangulation. This comprehensive approach ensured that the conclusions drawn were both statistically sound and contextually grounded, resulting in

a more complete and credible understanding of how school administrators' learning agility affects student performance in Gatundu South Sub County.

RESEARCH FINDINGS AND DISCUSSIONS

The researcher distributed 77 questionnaires out of which 46 questionnaires were answered to the researchers' expectations and returned. This is as shown on Table 2.

Table 2: Response Rate

No. of questionnaires Returned	Target No. of respondents	Response Rate (%)
146	177	82.5%

Out of the remaining 31, 23 respondents did not return the questionnaires while 8 respondents were rejected as they did not answer the questions to the expectations of the researcher. The study analysis relies on 46 survey responses. The obtained response rate equates to 82.5% and matches the recommended standards per Mugenda and Mugenda (2003).

Mental Agility of School Administrators

The research project examined the level of consensus regarding different statements related to school administrator mental agility. Across the 5 point Likert scale participants rated this variable from 5= SA; 4= A; 3= N; 2= D and 1= SD. Information from this study is illustrated through Table 3.

Table 3: Respondents' Opinions on Mental Agility of School Administrators

Opinions on Agility of school Administrators	N	Mean	Std. Deviation
I am able to think quickly and make decisions effectively in challenging situations.	146	4.282	0.641
I feel comfortable dealing with complex problems and finding solutions.	146	4.265	0.941
I consider issues from various perspectives before making decisions.	146	3.846	0.988
I have the ability to make connections between abstract concepts and apply them in practical situations.	146	4.188	0.642
I adapt easily to changes in circumstances or requirements.	146	4.162	1.082
I remain composed and focused even when faced with unexpected obstacles.	146	4.034	0.765
I am open to new ideas and approaches to problem-solving.	146	3.964	0.365
I actively seek out opportunities for learning and self-improvement.	146	4.123	0.654

The results in Table 3 indicate that school administrators in Gatundu South Sub County display strong mental agility across multiple cognitive and behavioral dimensions. Notably, respondents strongly agreed that they can think quickly and make effective decisions in challenging contexts (Mean = 4.282, Std. Deviation = 0.641). This finding is consistent with Wang and Li (2020), who found that school administrators with high mental agility navigate complex problem-solving scenarios more effectively, particularly in rapidly changing

educational environments. This study confirms that such cognitive agility is not limited to urban or high-resource schools, as previous research often suggests, but is also evident in day secondary schools within resource-constrained Kenyan sub-counties.

Moreover, the high mean score for comfort in dealing with complex problems (Mean = 4.265) resonates with Mumford et al. (2017), who argue that effective educational leaders excel at managing “wicked problems” that lack clear solutions. The present study extends this by providing empirical evidence that administrators in Gatundu South are not only aware of complex problems but feel confident and equipped to tackle them — an important finding considering the frequent policy shifts and resource limitations that characterize Kenyan public education.

A distinctive aspect of this study is the explicit measurement of how well administrators connect abstract concepts with practical solutions (Mean = 4.188). While previous work by Sternberg (1985) introduced this as part of practical intelligence, few empirical studies have validated this link within the Kenyan school leadership context. This research thus adds a new localized insight: cognitive integration skills among Kenyan administrators may be stronger than previously documented, contributing directly to daily school operations and strategic decision-making.

Interestingly, while most cognitive agility indicators scored high, the item on considering multiple perspectives before making decisions had a slightly lower mean (3.846). This nuance echoes findings by Leithwood and Sun (2012) that while quick decision-making is common among effective leaders, inclusive and deliberative decision-making sometimes lags, especially in high-pressure school contexts. This suggests that leadership training in this region could benefit from emphasizing skills that balance speed with collaborative input and reflective judgment.

The findings further reveal that respondents are proactive learners (Mean = 4.123) and maintain composure under stress (Mean = 4.034), highlighting robust self-regulation — a key feature of De Meuse’s (2017) definition of learning agility. These elements support the argument that mental agility is not just about cognitive speed but also about the emotional stability needed to lead during uncertainty, a trait highly relevant in the wake of education disruptions such as the COVID-19 pandemic.

Compared to Özgenel and Yazıcı (2021), who demonstrated that administrators with higher mental agility are more flexible and effective in decision-making, this study shows similar trends but in a different cultural and socioeconomic context, reinforcing the generalizability of these traits across diverse school systems.

The findings not only confirm but enrich the existing body of knowledge by highlighting that school administrators in Gatundu South Sub County possess strong mental agility despite local constraints. However, the lower scores on perspective-taking suggest an area

for capacity development to ensure decisions are not only swift but inclusive and contextually sensitive. Overall, the evidence supports the argument that mental agility should remain a priority area in leadership training programs and policy frameworks targeting improved KCSE performance.

People Agility of School Administrators

The study evaluated the level of concurrence with different statements related to school administrator people agility. The scale for this variable relied on a 5-point Likert scale with options from 5= SA through to 1= SD. The research results are displayed as Table 4.

Table 4: Respondents' Opinions on People Agility of School Administrators

Opinions on people Agility of School Administrators	N	Mean	Std. Deviation
I am willing to take interpersonal risks to foster positive relationships.	146	4.299	0.864
I demonstrate self-awareness and empathy in my interactions with others.	146	3.983	0.788
I maintain composure and professionalism in challenging interpersonal situations.	146	3.889	1.065
I appreciate and respect individual differences among staff and students.	146	3.786	1.089
I actively collaborate with colleagues to achieve common goals.	146	3.957	0.913
I encourage open communication and feedback among team members.	146	4.214	0.954
I effectively resolve conflicts and disagreements among staff or students.	146	4.136	0.461
I inspire teamwork and cooperation among different stakeholders in the school community.	146	3.916	0.612

The findings presented in Table 4 show that school administrators in Gatundu South Sub County demonstrate notably high levels of people agility across multiple interpersonal and relational dimensions. The highest mean score was observed for the willingness to take interpersonal risks to build positive relationships (Mean = 4.299, Std. Deviation = 0.864). This strongly supports the view that effective school leaders actively invest in trust-building and relationship development, a finding that reinforces Ngugi and Kimani's (2019) conclusion that emotional intelligence enhances leaders' ability to navigate complex social dynamics within schools.

Encouragement of open communication and feedback also received high agreement (Mean = 4.214), which mirrors Mwangi and Ochieng's (2021) assertion that transformational leaders foster transparent communication channels, leading to higher morale and collaboration. Compared to these earlier studies, the present results provide robust empirical confirmation that such behaviors are not just aspirational but actively practiced by administrators in a Kenyan sub-county context—offering concrete evidence that local school leaders embrace relational transparency as a leadership tool.

Furthermore, the study confirms that administrators in this context handle conflict resolution effectively (Mean = 4.136) and maintain self-awareness and empathy (Mean = 3.983). These competencies are critical components of people agility and echo Howard's (2017) findings that strong interpersonal skills among teachers correlate with better performance outcomes. However, unlike Howard's focus on pre-service teachers, this study validates the same linkage at a higher leadership level, filling an important contextual gap by showing that these skills contribute to positive school climates and, ultimately, to student performance.

Interestingly, slightly lower mean scores were recorded for appreciating individual differences (Mean = 3.786) and maintaining composure in challenging interactions (Mean = 3.889). This nuance suggests that while general people agility is strong, deeper sensitivity to diversity and emotional regulation in high-stress interactions may require more targeted development. Recent research (e.g., Boyatzis, 2018) emphasizes that emotionally intelligent leaders adapt more readily to diverse staff needs and evolving community demographics. Thus, this finding signals an area where future capacity-building programs could strengthen administrators' competencies, especially in multi-cultural or socioeconomically diverse school environments.

Comparatively, these findings also extend insights from international contexts such as Wang and Gagné (2020), who noted that relational agility significantly enhances team cohesion in Asian schools. The current results confirm that these benefits hold true in Kenyan day schools, despite contextual differences in resources and policy environments. This underscores the universal value of people agility in driving collective effort and positive school culture across varied educational landscapes.

Therefore, the evidence affirms that people agility is deeply embedded in the leadership practices of Gatundu South Sub County administrators. These leaders demonstrate robust relational skills that foster open communication, teamwork, and conflict resolution—key drivers for maintaining teacher satisfaction and student engagement. Yet, the slightly lower scores on diversity appreciation and stress management highlight practical areas for professional development, ensuring that people agility continues to evolve in step with the demands of increasingly complex and diverse educational communities.

School Academic Performance among Day Secondary Schools

The research explored the level of acceptance towards school academic performance statements among day secondary schools based in Gatundu South Sub County, Kiambu County, Kenya. Study results appear in Table 5 when researchers applied a five-point Likert scale which ranged from 5= SA to 1= SD.

Table 5: Respondents' Opinions on School Academic Performance among Day Secondary Schools

Opinions on school Academic performance	N	Mean	Std. Deviation
The overall academic performance of our school has been consistently improving over the past few years.	146	4.032	0.613
Our school has a strong reputation for producing high-achieving students in national examinations.	146	4.096	0.465
The quality of teaching and learning in our school is reflected in the academic achievements of our students.	146	3.936	0.700
Our school effectively utilizes resources to support student learning and academic success.	146	4.011	0.374
Our school consistently meets or exceeds established academic benchmarks and targets.	146	4.064	0.504
Parents and guardians are satisfied with the academic progress and performance of their children at our school.	146	4.021	0.672
Our school demonstrates a commitment to continuous improvement in academic standards and outcomes.	146	4.106	0.310
The leadership and management of our school play a key role in driving academic excellence and KCSE performance.	146	4.064	0.564

The results in Table 5 show that stakeholders in Gatundu South Sub County generally perceive school academic performance positively, with strong agreement on steady improvement and consistent achievement. Respondents strongly agreed that their schools have recorded consistent improvement in academic performance over recent years (Mean = 4.032, Std. Deviation = 0.613). This is consistent with Gitonga and Nyambura (2019), who observed that schools led by agile administrators tend to display sustained academic gains due to adaptive planning and responsive leadership practices.

Additionally, the finding that schools have a solid reputation for producing high-performing students in national examinations (Mean = 4.096) echoes Senguo and Ilomo's (2020) argument that a combination of learning agility, effective teaching, and well-managed resources translates directly into notable KCSE results. This study's confirmation of this link within a Kenyan sub-county context strengthens the case for investing in leadership development as a tool for boosting national exam outcomes.

Respondents also agreed that high teaching and learning quality underpins these outcomes (Mean = 3.936), aligning with Kimemia and Mwaura (2022), who showed that administrators' learning agility has a positive ripple effect on teacher effectiveness, student test scores, and college readiness. This connection demonstrates that agility-driven leadership indirectly shapes classroom delivery quality and student motivation.

Moreover, the finding that schools effectively deploy resources to support student learning (Mean = 4.011) supports Gacheri (2017), who emphasized that data-informed resource management and continuous improvement cultures are essential for sustaining strong KCSE performance. The alignment between this study and prior findings suggests that resource use remains a critical pillar of performance, and that learning agility strengthens leaders' ability to optimize limited resources under financial constraints typical in Kenyan day schools.

The perception that schools consistently meet or surpass academic benchmarks (Mean = 4.064) reinforces Omondi and Musyoka's (2018) evidence that clear targets and robust performance tracking boost accountability and keep schools aligned with performance goals. This trend is critical: it signals that respondents not only set targets but also actively monitor progress—an indicator of high agility.

Parent and guardian satisfaction (Mean = 4.021) adds another dimension. As Howard (2017) suggested, school leaders with strong people agility build trust with stakeholders, resulting in greater community support and enhanced student morale, both of which are vital to sustaining high performance in exams like KCSE.

Equally notable is the high consensus that schools are committed to continuous improvement (Mean = 4.106), echoing Patel and Sharma's (2019) view that agility-oriented leaders institutionalize innovation and quality enhancement, rather than viewing them as one-off efforts. This ongoing commitment likely explains why respondents view their schools as academically strong despite operational challenges.

Finally, respondents affirmed that leadership and management significantly influence KCSE success (Mean = 4.064), supporting Kumar and Jha's (2023) argument that agile and strategically adaptive leadership directly predicts whether reforms and high standards stick in schools.

However, a critical gap persists: while the ratings are consistently high, the relatively modest standard deviation on key items suggests some variance across schools, possibly hinting at pockets where leadership agility is lower or resource constraints are more acute. This study thus reinforces calls for more equitable distribution of training and resource allocation to ensure that no school lags behind in adopting agile, goal-driven leadership practices.

Regression Analysis

The research utilized a multivariate regression analysis to determine the predictor variables and their corresponding impact. The measurements of the multiple regressions were encoded, entered, and calculated utilizing the Statistical Package for the Social Sciences (SPSS). The primary aim of this research is to investigate the impact of mental agility of school administrators and people agility of school administrators on KCSE performance among day secondary schools in Gatundu South Sub County.

Table 6: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.804 ^a	0.646	0.616	1.035

The findings in Table 6 indicate a statistically significant relationship between mental agility and people agility with KCSE performance, as demonstrated by the correlation coefficient ($r = 0.804$). This aligns with Gitonga and Nyambura (2019), who found that agile leadership significantly contributes to higher KCSE performance and student engagement. The coefficient of determination ($R^2 = 0.646$) suggests that 64.6% of the variance in KCSE performance can be explained by these four independent variables. This high explanatory power supports Gitonga and Nyambura (2019) and Kimemia and Mwaura (2022), who found that administrators' agility significantly drives student outcomes and institutional excellence.

Table 7: ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	98.848	2	24.7121	21.580	0.00003
	Residual	161.461	143	1.14511		
	Total	260.309	145			

The Table 7 presents the F statistic value of 21.580, which is significant at a 5% level of significance. The statistical analysis reveals that the F statistic demonstrates significance, as evidenced by the P-value of 0.000003, which falls below the specified significance level of 0.05. This implies that the model utilized in the study exhibits statistical significance, thus indicating that the data can be deemed dependable for making certain conclusions. This aligns with Senguo and Ilomo (2020), who emphasized that strategic leadership behaviors directly shape exam performance by embedding adaptability and accountability into daily school operations.

Table 8: Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	3.771	0.451		8.359	0.000
Mental agility	0.795	0.179	0.126	4.441	0.000
People agility	0.782	0.221	0.146	3.538	0.001

The overall regression model for this study was:

$$Y = 3.771 + 0.795X_1 + 0.782X_2$$

Results showed that mental agility used by administrators leads to improved overall KCSE performance of day secondary schools located in Gatundu South Sub County. Research results demonstrate that day secondary schools in Gatundu South Sub County experience a 0.795 increase in their KCSE examination results with each unit increase in school

administrator mental agility. Such direct connection exists between these two variables. This finding supports Wang and Li (2020) and Özgenel and Yazıcı (2021), who established that quick thinking, problem-solving, and cognitive flexibility are strong drivers of school effectiveness.

The research data indicates that school administrators in day secondary schools within Gatundu South Sub County demonstrate desirable people agility characteristics which positively affect their KCSE performance outcomes. The strength of relationship between both variables demonstrated a value of 0.782 through statistical analysis. The statistical significance of the relationship between these variables was proven through the T-value of 3.538. Research indicates that the people agility level of school administrators produces favorable results for KCSE performance in day secondary schools situated in Gatundu South Sub County Kenya. This aligns with Ngugi and Kimani (2019) and Mwangi and Ochieng (2021), who demonstrated that leaders skilled in empathy, trust-building, and collaboration inspire staff motivation and boost student success. Overall, all predictors contribute positively and significantly, validating the conceptual framework that agile leadership dimensions collectively and individually enhance KCSE outcomes.

Conclusion

In conclusion, this study clearly demonstrates that learning agility is a pivotal leadership capability for school administrators striving to raise KCSE performance in day secondary schools within Gatundu South Sub County.

The evidence shows that mentally agile administrators excel at analyzing complex challenges, making swift, informed decisions, and steering their schools through uncertainty with clarity and confidence. Strong people agility enables leaders to build trust, manage interpersonal dynamics, and nurture teamwork and collaboration among teachers and students, directly strengthening school climate and student engagement.

Taken together, these findings deepen understanding of what practical, adaptive leadership looks like in the Kenyan secondary education context. They provide concrete proof that investing in school leaders' agility skills is not just theoretically sound, but directly tied to real improvements in national examination performance.

This research therefore advances the scholarly discourse on leadership in education by grounding abstract agility concepts in local, actionable evidence. It calls for education policy makers, teacher training institutions, and school boards to shift leadership development efforts towards purposefully nurturing these four agility areas, ensuring that current and future school administrators are equipped to lead schools effectively through ever-evolving challenges.

Therefore, learning agility is not a soft skill but a strategic necessity for sustainable academic excellence—and this study offers a clear, evidence-based pathway for embedding it into school leadership practice in Kenya and similar educational contexts.

Recommendations

To strengthen mental agility, the study recommends that educational authorities design and deliver targeted professional development programs focusing on critical thinking, advanced problem-solving, and rapid decision-making skills. Training should integrate real-life case studies and scenario-based simulations to build administrators' capacity to tackle complex and unpredictable challenges effectively.

Additionally, mentorship arrangements pairing seasoned administrators with less experienced colleagues should be institutionalized, creating pathways for sharing expertise and fostering cognitive flexibility. The study further encourages schools to promote reflective leadership practices, including regular self-assessment and peer reviews, enabling administrators to continuously refine their thinking and decision-making approaches. These actions will collectively boost schools' capacity to maintain high KCSE performance amid an ever-changing educational landscape.

To enhance people agility, the study urges the introduction of specialized training in emotional intelligence, active listening, conflict management, and inclusive communication. Such training will empower school leaders to build strong, trust-based relationships, resolve interpersonal tensions constructively, and nurture a positive school climate that motivates both staff and students.

Schools should establish structured peer-learning circles and networking forums where administrators exchange insights, share best practices, and co-develop solutions to shared challenges. Clear and regular channels for open dialogue — such as staff forums and anonymous feedback systems — should also be strengthened to ensure leadership actions remain aligned with the needs and experiences of all stakeholders.

Finally, promoting a culture that values diversity, empathy, and respect for individual differences will help embed people agility as a norm in daily school operations, ultimately driving higher academic achievement.

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