

INFLUENCE OF SCHOOL MANAGEMENT PRACTICES ON STUDENTS' ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOL IN KIAMBU COUNTY

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ABSTRACT

Education has been considered an important element of any society from ancient times. This is because of the realization that education has the power to change society and societal norms and accordingly the level and standard of living in different periods of time. The common problem experienced in Kiambu County is that which relates to skewed students' academic achievement. Some few schools post excellent performance and yet a majority perform dismally. Despite the primary schools in Kiambu County performing well in KCPE examinations, the same performance is not translated in KCSE examinations as the performance in almost all schools is below average. The underperformance of learners in this region has therefore led the researcher to ask whether management practices can be the main reason for the said underachievement. The purpose of this study was to determine the influence of management practices on students' academic achievement in public secondary school in Kiambu County. The study evaluated the influence of school supervision practices and target setting on student's academic performance in public secondary school in Kiambu County. The study was anchored on the open systems theory. The explanatory cross-sectional research design was employed. The target population was public secondary school in Kiambu County. The unit of analysis was the teachers, guidance and counselling teachers, student council chairpersons, and the school principals. The sample size was determined using stratified random sampling technique. This study collected data using interview guide, document

analysis guide and structured questionnaire. The data that was collected from the field was filtered, sorted and cleaned in line with research objectives. The data was then coded, entered into and analyzed using statistics software (SPSS, Version27.0). Thematic analysis entailed the creation of themes related to the study variables. Qualitative data obtained from the interviews was analyzed using thematic analysis and presented in prose form. Quantitative data and was analyzed by use of descriptive statistics. It involved calculation of percentages, frequencies, means and standard deviation. The results from the questionnaire and document analysis were presented using tables and graphs. Multiple regression analysis helped analyze inferential data. The study found that the school supervision practices involves various stakeholders in school decision making process, involves the community and parents in school improvement process, emphasizes the professional development of their teachers, and strives to improve the classroom and learning quality. Moreover, the research found that it was uncertain whether the targets set enable them to utilize their knowledge and skills. The study concludes that the Ministry of Education and Teachers Service Commission should jointly come up with a programme to educate and train the teachers on the need and importance of instructional supervision.

Key Words: Management practices, Students' academic achievement, School supervision practices, Target setting, Societal norms.

INTRODUCTION

Education has been considered an important element of any society from ancient times. This is because of the realization that education has the power to change society and societal norms and accordingly the level and standard of living in different periods of time. This is the reason there are various evidences of people striving and struggling hard by traveling faraway places for the sake of getting an education. The development and progress in science and education are today referred to among the indicators of development and progress within a country. In the process of education, the student's learning and achievement are the prime focus of the whole process (Alani, Khan & Hawas, 2020).

The achievements of students in a formal academic institution are observed from the institutional allocated scores and ranks for their learning activities during a particular time period (Lekwa, Reddy & Shernoff, 2019). However, the standard of student's learning assessment and scoring vary across institutions based on their particular assessment criteria. The management practices being employed, adopted, and practiced in educational institutions play a major role in the positive learning of students. Management can be perceived as the process of designing as well as maintaining any setting in which people work in groups for the purpose of accomplishing the predetermined goals (Tham, 2020). The idea of any setting equitably show that management is applicable of all the establishments which don't exonerate educational setting. According to Centre for Economic Performance (CEP), better school management has been associated with better student academic achievement.

According to Senguo and Ilomo (2020), school management is not only designed to officially titled positions; instead it must be a collective construct that can be spread among teachers and support staff through the creation of relationships and networks in order to improve learning. In other words, academic outcomes are more likely to improve when teachers are empowered in areas which they believe are important through management practices. Even though teacher quality has influence students' motivation and achievement, the quality of school management matters in determining the motivation of teachers and the quality of their teaching, which may subsequently affect students' achievement (Nisar, Khan & Khan, 2019). In this study the management practices are classified under the following areas which include motivation, school supervision practices, target setting, and guidance and counselling.

In the United States of America (USA) many districts and states are spearheading reforms aimed at making principals to be accountable for school performance (Suthakar, Karnan & Venkatarathanam, 2019). This was necessitated by the realization that strong leadership by the principle indirectly affects school academic performance. The principals' management practices normally set the tone of the school, the level of professionalism, the morale that the teachers' have, the climate for teaching, and the degree of concern for what students may or may not become. Similarly, Australia has over the last 30 years pursued educational reforms with the intention of raising the achievement standards of students (Rizqi, Syamsul,

Rofiqul, Kittisak, Andika Eko, Hasan Said & Muhamad, 2019). An area of interest in education reforms in Australia is the school supervision practices.

In Switzerland and Germany, teacher motivation predicts student interest in a subject and subsequently their academic performance. The fact that teachers matter was found to be central as determinant of learner's academic accomplishment (Kapur, 2018). Empirical evidence shows the criticality of roles that teachers play in as far as student outcomes is concerned (Kim & Seo, 2018).

Target setting motivates an individual to exert effort, persist and focus their attention to produce the desired outcome. According to Gat, Warganegara and Kosasih (2021), target setting for the students in Nigeria showed that their performance improved when closely monitored. Where targets are set, students usually make an observation, judgment and react to their inner perception of target progress and where there are commitments made, then it becomes a base against which comparison can be made between performance and the set targets. Whereas self-assessment of improvement raises and sustains incentive, apparent incongruity between the targets and performance creates a dissatisfaction whose effect will be demonstrated by one putting in extra effort (Farokhzadian, Karami & Forouzi, 2020). Target setting does not only exert pressure to the students to deliver but also teachers as well. This means that teachers will also put in extra effort to achieve the set and maintain or to continuously improve on the targets.

Tan (2018) in Zambia reveals that school supervision practices influences teacher performance towards the improvement of teaching as well as learning. Ideally, this means that it will have a spiral effect by influencing the students' performance. Tools for monitoring progress have in the recent past been considered core in achieving success (Bakar, 2018). In Zimbabwe, Talaue, AlSaad, AlRushaidan, AlHugail and AlFahhad (2018) found out that management of funds by school principals remained a challenge. He further found out that school heads in Mashonaland province had cases of financial mismanagement and abuse of teacher's incentives. The author noted that administrators in public secondary schools lacked financial skills needed for prudent management of school funds which negatively affected academic achievement in public schools.

In South Africa, Kapur (2018) observed that when students are motivated to learn by their teachers, this may increase their anxiety and because they want to satisfy the person motivating them, they tend to have high expectation in the test, therefore, they concentrate on thinking about the consequences of not meeting the expectation. Since this amounts to disappointing the person motivating them, the thought of consequence of failure may increase test anxiety and fear of negative evaluation among school children.

In Tanzania, a study conducted by Liebowitz and Porter (2019) found that students' academic achievement comes when heads of schools have proper guidance and counselling on teaching and learning activities, dealing with academic issues, reinforcing school rules and regulations, delegating responsibilities and promoting collegiality spirit among the teachers.

A study conducted by Adams and Blair (2019) in Uganda shows that effective school management has been affected by school management and supervision styles.

The Cabinet Secretary is given the responsibility for the overall governance and management of basic education to all children at national and county levels by the The Kenya's Basic Education Act, 2013 gives According to Wanjala (2021), noted that the senior leaders and the management are expected to guide the organization and assess the organizational performance. Therefore, frequent use of effective leadership practices resulted in greater school improvement progress and school effectiveness learning climate (Mwangi, 2016). Noted that managers ought to be involved in the effectiveness of quality management and they must provide vision, reinforce values emphasizing quality, set goals, allow free flow of information, ensure training and development of staff, deploy resources for the quality programs and monitor the progress of the same (Mackatiani & Komo, 2018). Stated a concern that students in public secondary schools in Kiambu County perform dismally in national examinations. An analysis of KCSE performance in public secondary schools in Kiambu County for 5 years is as follows: 2010-2014 was D+ and thus, reflecting poor performance. Data also revealed that 78.35% of the students got below a mean grade of C+ which is the minimum requirement for entry to Kenyan universities and 67.94% got below grade C which is the minimum entry requirement to a diploma college (Kiambu County Director of Education Office, 2022).

There is high competition among Kenyan schools each trying to produce good results every year. There is much emphasis on good performance in examinations and acquisition of good academic certificates that would enable school leavers to gain further education or employment. There has been increasing pressure from parents, taxpayers and stakeholders in schools' performance in national examinations. They evaluate schools in terms of students' performance in national examinations. It is evident that some secondary schools perform better every year in national examinations than others. One factor which is responsible for this is the differences in school organization and the managerial practices (Oguta, Getange & Juma, 2021).

Student performance in KCPE in Kenya is good and this is not reflected in their performance in KCSE or even when compared to the neighboring counties. Kiambu County maintained the last position in the province in academic performance of Kenya Certificate of Secondary Examination in the four consecutive years (PDE-central, 2017-2020 KCSE result analysis). The academic performance includes the mean score and the quality grades that lead to admission to universities for degree courses. It was noted that most candidates scored low grades, hence raising the concern (Oyugi & Gogo, 2019).

In most Kenyan secondary schools, the most common problem noted is that which relates to skewed students' academic achievement with some few schools posting excellent results and yet a majority performing dismally. Despite the fact that Kiambu county is well endowed economically, has high literacy rate, admits among them top cream of KCPE candidates, it has well established schools and boasts of six out of the eighteen oldest national schools in the country, the 2012 KCSE national exam analysis revealed Kiambu county lagged at position 37

out of 47 counties in the country. The analysis indicates that the county posted the lowest overall performance index out of all the other counties in the entire Central region of Kenya. The analyzed results for central Kenya (Ministry of Education, 2013:91) indicates that while the best performing counties in this region were Nyandarua (performance index of 31.852168) followed by Kirinyaga county (performance index of 31.193239) the worst performing county was Kiambu (performance index of 28.117322).

School principals being the principal managers in educational institutions are considered as playing a central role in educational achievement while the teachers translate policy into action. The foregoing discussion imputes that ineffective teachers and school management would have the students whose academic progress is inadequate (Muia, 2018). The pattern of low performance would run across regardless of individual student potential in their achievement academically. The fact that the students perform better in KCPE perhaps would mean that their background may not be significant leaving emphasis to be laid on school management in secondary schools (Onderi, Kiplangat & Awino, 2019). It is against this argument that the study sought to find out the influence of management practices on learners' academic achievements in public secondary school. Specifically, the practices are studied are motivation, supervision practices, target setting, and guidance and counselling.

Statement of the Problem

Across the globe, practitioners, educational researchers as well as parents and other education stakeholders have articulated growing concern about the student's academic achievement in secondary schools (Usman, 2015). Much literature on educational outcome in Kenya has been dominated with such factors as quality of teaching, class sizes, instructional resources, competition and background of the learners among others with little emphasis being attributed to school management practices. Despite the primary schools in Kiambu County performing well in KCPE examinations, the same performance is not translated in KCSE examinations as the performance in almost all schools is below average (Mackatiani & Komo, 2018).

The academic performance of students in national examinations in Kiambu County is comparatively low. For instance, the KCSE performance mean grade for the county has been below the minimum requirement grade for university entry as shown by KCSE results for years 2011- 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 trend has raised concern from all stakeholders. The recorded poor results of students in national examinations in Kiambu County was a concern to the investigator noting that the county is located in an area with a high potential in terms of resources with a very high socio-economic status compared to other counties in the region and the rest of the country. Hence, this underscores the dire need to empirically establish the cause of this worrying disparity in students' academic performance.

Since school management is a keystone for students learning and enhanced performance as has been cited by virtually all researchers and reviewers who looked at the relationship between educational practices and students performance in other African countries, perhaps this problem can be minimized by focusing on management practices and students' academic performance (Mwangi, 2016). The poor achievement of learners in national exams is a clear example that there are deficiencies with respect to management practices within public secondary schools in Kenya and more so in Kiambu County. There has been a notion that a student's KCPE performance is directly related to the KCSE performance. Consequently, various divergent schools of thought have emerged with some claiming that if one performs well in KCPE then the student will definitely perform well in KCSE, others believe that good KCSE performance is attributed to a "good school" (Wanjala, 2021). These divergent thoughts have led to a crisis worth solving on whether management practices can be the main reason for the said underachievement in Kiambu County. Therefore, this study focused on the influence of management practices on students' academic achievement in public secondary school in Kiambu County.

Objectives of the Study

The specific objectives of this study were:

- i. To assess the influence of the school supervision practices on student academic achievement in public secondary school in Kiambu County.
- ii. To establish the influence of target setting on student academic achievement in public secondary school in Kiambu County.

Rationale of the Study

Kiambu County public secondary schools have been performing below the National mean scores in the respective subjects for the last five years. The paradigm shift from an examination oriented system of education to a competency based curriculum and the emphasis by Government on STEM subjects, particularly in secondary education aimed at building capacity for industrialization and achievement of sustainable development goals. Despite the significant role played by heads of schools, less attention has been given in understanding how their management practices influence student academic achievement. The KCSE mean for Kiambu County has not been good compared to national KCSE mean. This is shown in Table 1.

Table 1: Kiambu KCSE1 Performance in the year 2011 – 2021

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
National mean	6.615	6.247	5.878	5.510	6.142	5.773	5.005	5.137	5.4577	4.022	3.721
Kiambu County mean	3.980	3.713	4.447	4.180	3.914	3.647	4.381	3.814	4.370	3.437	3.237

Source: KNEC KCSE1 analysis

Studies done have focused on their training needs as well as the challenges facing them in discharging their responsibilities in other counties. Studies done in Kiambu County investigated on the relationship between learners' attitude and Academic Achievement. However, limited studies have been done in Kiambu County on the influence of management practices on student academic achievement. This study might be timely in informing the decision making process of school administrators in order to ensure effective utilization of this valuable cadre of personnel.

Theoretical Framework

The study was anchored on the open systems theory. The main proponent of the open systems theory was Luhmann (2004). According to Luhmann (2004), organizations operate like an organism with interdependent parts, where each part executes its own specific function but with interrelated responsibilities. That is all parts of the organization are interdependent but interconnected. The school as an organization is an open system, which interacts with the environment and is continually adapting and improving. Real systems are in continuous evolution since they are open to, and interact with, their environments, and it is welcome to contingencies for its relevance and survival. A disturbance in one part of the organization affects other parts of the organization hence the whole organization. As an open system, a school receives its input such students from the external diverse environment (Scott & Davis, 2015).

This implies that learners from the diverse societal environment converge in school with varied goals, hopes, beliefs and attitudes but through interaction with school administration or the principal, teachers, students, support staff and other educational experiences, they become changed individuals. In due course of interaction, behavior moderation is done where the learner is expected to observe the general societal norms in addition to the school rules and regulations. This transforms them to educated citizens capable of contributing towards societal development (Klimontovich, 2012).

It then follows that, for a school as an organization to be effective, in maintaining the school discipline, the managers must pay attention to both internal and external environments such as policy changes, mode of communication, legislative requirements and other emerging changes that may impact the students' discipline negatively or positively. These may include government policy on peer counseling (Republic of Kenya, 2001), the ban of corporal punishment in Kenya in 2001, the basic education Act (Republic of Kenya, 2013) and the children's Act (Republic of Kenya, 2001). For example, rapid technological changes have transformed ease of communication such that students from far flung schools can plan a boycott of examinations and some other mischief without the knowledge of teachers. However, principals may also get information of impending planned student unrests beforehand from some parents or cooperating students. In so doing, some can apply some measures such as sending the students to collect some unpaid school levies and thus averting a collective move by the students (Luhmann, Baecker & Gilgen, 2013).

A school as a system is composed of various parts which work in an interrelated manner for accomplishment of stated goals. A school exists in the form of an open system because it receives input from the society and it also gives output to the society. The school receives curriculum, teaching materials, finances, teachers, parents and students. The school principal coordinates the activities as he or she performs the instructional supervision tasks. Checking of professional documents, class visitation, checking students' academic progress records and implementation of instructional programs play a major role in the realization of the institution's objectives.

The students, teacher and parent as representatives of the environment influence the function of the system at a greater percentage. It is also applicable that the institution as a process unit shapes the environment. Therefore, for effective management practices such as supervision practices, target setting, motivation by school administrators, and guidance and counselling play a major role in the academic performance of the students in public secondary school in Kiambu County.

RESEARCH METHODOLOGY AND DESIGN

Research Methodology

This study adopted the mixed method approach. Specifically, the study adopted the embedded mixed methods research design to collect both the qualitative and quantitative data concurrently to allow broad and deeper understanding of the phenomenon under study. In this study, embedded research design involved a small number of qualitative aspects integrated into the main quantitative study (Snyder, 2019). Therefore, the quantitative approach was dominant while qualitative aspects were less dominant in the study. For instance, most items in the questionnaire were structured. However, there were unstructured items which yielded qualitative data that helped in explaining the quantitative findings. As a result, qualitative aspects were embedded in the quantitative approach to enable comprehensive explanation of the relationships between variables.

Research Design

The study used an explanatory cross-sectional design. According to Mohajan (2018), explanatory research is about studying a situation or a problem in order to explain the relationships between variables. Cross-sectional design uses numerical data to explore relationships between two or more variables. If the relationship exists between variables, it implies that scores on one variable are associated with or vary with the scores on another variable (Snyder, 2019). Cross-sectional study design is a type of observational study design. In this study, the researcher measures the outcome and the exposures in the study participants at the same time (Pandey & Pandey, 2021). Cross-sectional study design allowed the researcher to collect data from a very large pool of subjects and to compare differences between the groups. The design was appropriate for gathering

information from questionnaires and interviews, and also allowed the measure of regression between the key variables of the study.

Location of the Study

Kiambu County is situated in the former Central Province of Kenya and covers an area of 2,449.2km². The County was chosen for this study because of the declining academic achievement. The study target population was public secondary school in Kiambu County.

Target Population

The target population was secondary school in Kiambu County. The unit of analysis was the student council chairpersons, teachers, guidance and counselling teachers and the school principals as they were deemed to privy to the management practices of the school. The population was as shown in the Table 2.

Table 2: Target Population

Respondents	Target Population
Principals	37
Teachers	197
Guidance and counselling teachers	37
Student Council Chairpersons	37
Total	308

Source: Kiambu County Education Office (2022)

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 is 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:

$$n = \frac{308}{1 + 308 (0.05)^2}$$

$$n = 174$$

The sample size was therefore 174 respondents. Stratified random sampling technique was used in selecting the respondents. The technique was suitable since the target population is classified into four strata (groups), teachers, guidance and counselling teachers, student council chairpersons and the school principal. The choice of the teachers, guidance and

counselling teachers, student council chairpersons and the school principal was justified since they are actively involved in running the schools and are also the decision makers.

Table 1 3: Sample Size

Category	Target Population	Ratio	Sample Size
Principals	37	0.565	21
Teachers	197	0.565	111
Guidance and counselling teachers	37	0.565	21
Student Council Chairpersons	37	0.565	21
Total	308		174

Research instruments

Data collection is the process of obtaining data from target respondents (Dźwigoł & Dźwigoł-Barosz, 2018). This study collected data using a structured questionnaire, an interview guide and document analysis.

Questionnaires

Adequate time in research is a vital element as it determines the quality of information gathered from the field (Ørngreen & Levinsen, 2017). Therefore, the researcher developed a teacher's and student's council chairpersons questionnaire. The instrument was used to collect quantitative data as it had closed ended questions. In closed ended questions, response categories were provided and respondents were expected to select a particular answer or answers. The questions in the instruments addressed each study objective in separate sections. The questionnaire contained questions on respondents' profile as well as questions relating to each study variable. The following Likert scale was used: Strongly disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5). Use of questionnaires was less costly, used less time, and required less administrative effort. Questionnaires also made it simple to compile data after collection

Interview Schedule

The interview schedule was used to collect data from the principals and guidance and counselling teachers. The instrument mainly contained open ended questions. It was divided into subsections with questions in each subsection addressing specific study objectives. Both face to face and telephone interviews were carried out.

Document Analysis

Document analysis is a form of qualitative research that uses a systematic procedure to analyze documentary evidence and answer specific research questions. Snyder (2019) defined document guide as true record of what has occurred in the past. The instrument collected quantitative data on students' academic achievement in public secondary school in Kiambu County in KCSE in terms of school mean scores for the last five years from 2017 to 2021.

Piloting of Research Instruments

Pilot testing is testing of the research questions to a different population that has similar traits as the population under study (Rinjit, 2020). The pilot study was done to ascertain the research tool reliability and validity. The pilot survey used 10% representation of the sample size. After a day, the participants were asked to give responses to similar questions although this time there were no prior notification. This helped pinpoint any changes in the responses given using both times.

Testing for validity and reliability

The researcher ensured to test technical soundness of the research instrument, a degree to which a test measures what it is meant to measure. To this effect questionnaire or interview guide were said to be valid when they actually measure the intended parameters. To enhance the instrument of validity, the researcher instruments were appraised by the supervisor to evaluate the applicability and appropriateness of the content clarity and adequacy of the construction of the instruments from a research perspective. The instrument was reviewed and agreed by the supervisor so that content validity is ensured. Further, an expert assessed the degree to which the instrument could measure and determine the content of a particular concept. Content validity assessment leads a logical conclusion regarding the instrument's ability to cover all that it is supposed to. Content validity aimed to ensure a homogenous understanding by respondents to all items in the questionnaire to eliminate misconception and misunderstanding (Taherdoost, 2016).

To test reliability of instruments, yield measurements that were consistent each time if administered to the same people the researcher employed a test-retest method in order to test reliability of the research instruments. Afterwards, a pilot test was done with the key informants before full administration of the questionnaires. Cronbach's Alpha Coefficient was used to estimate reliability of the selected research instrument. The Alpha (α) was used to measure internal consistency by helping arrive at a determination if single item measures the same construct give uniform results. Cronbach's Alpha was established for every research objective in order to help evaluate the possibility that for the objectives under review, the same output was yielded if the research were to be conducted later on. The commonly accepted Cronbach Alpha value for reliability is 0.7 (Singh, 2017).

Data collection procedures

The questionnaires were given to the respondents through the drop and pick method so as to obtain well thorough answers from the respondents. An appointment was booked by the researcher with the respondents firms two days before dropping the questionnaires. The researcher administered the research instruments to the respondents. To make the process better the researcher administered interviews to collect detailed information about participants' experiences, opinions, and attitudes in their own words, providing a richer understanding of the research topic than the questionnaire. The researcher employed interview

guide as it allowed the researcher to obtain in depth data, this was possible using easy probing questions administered in a friendly manner to make the respondents comfortable.

Data Analysis Procedures

Data that was collected from the field was filtered, sorted and cleaned in line with research objectives. The data was then coded, and entered into and analyzed using statistics software (SPSS, Version 27.0). Thematic analysis entailed the creation of themes related to the study variables. Qualitative data obtained from the interviews were analyzed by use of thematic analysis and presented in prose form.

Quantitative data was analyzed using descriptive statistics. It involved calculation of percentages, frequencies, means and standard deviation. The results from the questionnaire and document analysis were presented using tables and graphs. Multiple regression analysis helped analyze inferential data. Multiple linear regression is a statistical technique for quantifying the relationship between the independent variables and the dependent variable based on observations. Since this study had four objectives, the following multiple regression model was estimated:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

Where; Y = academic performance

α = constant

β_1, β_2 , = Beta coefficients

X_1 = school supervision practices

X_2 = target setting

e = Error term

RESEARCH FINDINGS AND DISCUSSIONS

Reliability Analysis

A pilot study was carried out to determine reliability of the questionnaires. Reliability analysis was subsequently done using Cronbach's Alpha which measures the internal consistency by establishing if certain items within a scale measure the same construct. Table 4 displays the results.

Table 4: Reliability Statistics

Items	Cronbach's Alpha	Decision
School supervision practices	.772	Reliable
Target setting	.809	Reliable
Student's academic achievement	.711	Reliable

As shown in Table 4, motivation by school administrators had an alpha value of 0.849, target setting had an alpha value of 0.809, guidance and counseling had an alpha value of 0.782, school supervision practices had an alpha value of 0.772 while student's academic achievement

had an alpha value of 0.711. All alphas were above 0.7 and therefore the factors were all reflective because their indicators were highly correlated and are largely interchangeable.

School Supervision Practices and Academic Achievement

The study sought to determine the influence of the school supervision practices on student academic achievement in public secondary school in Kiambu County. The researcher required to know the level of agreement that the respondents had with statements related to school supervision practices and student academic achievement in public secondary school in Kiambu County. The results were as displayed on Table 5.

Table 5: Level of Agreement with Statements Related to School Supervision Practices

	Mean	Std. Deviation
The school supervision practices strives to improve the classroom and learning quality	3.713	1.398
The school supervision practices involves the community and parents in school improvement process	3.779	1.337
The school supervision practices emphasizes the professional development of their teachers	3.750	1.343
The school supervision practices builds and maintains rapport with the school community and other stakeholders	3.463	1.333
The school supervision practices involves various stakeholders in school decision making process	4.132	1.127
The school supervision practices delegates leadership responsibilities to other teachers	2.779	1.632
The school supervision practices supports the culture of trust, collaboration and support	2.802	1.392

The findings showed that the respondents agreed that the school supervision practices involves various stakeholders in school decision making process as illustrated by a mean of 4.132, the school supervision practices involves the community and parents in school improvement process as illustrated by a mean of 3.779, the school supervision practices emphasizes the professional development of their teachers as illustrated by a mean of 3.750, and the school supervision practices strives to improve the classroom and learning quality as illustrated by a mean of 3.713. The respondents also indicated that they were undecided on whether the school supervision practices build and maintains rapport with the school community and other stakeholders as illustrated by a mean of 3.463, the school supervision practices support the culture of trust, collaboration and support as illustrated by a mean of 2.802, and the school supervision practices delegates leadership responsibilities to other teachers as illustrated by a mean of 2.779.

From the interviews, the interviewees were asked to explain how the in service course or training in management are adequate to assist in managing the school. They indicated that the in service course or training in management are important avenues for equipping the teachers with such knowledge and skills important for learning not only to the teacher but also to students. The ministry of education ensures that all the potential talents are tapped efficiently

and the specific need of schools is addressed specifically to ensure that academic performance is achieved in the educational institutions.

Moreover, they were required to indicate how school supervision practices affect the academic achievement in their school. They indicated that the full impact of the principals' class visitation practices on students' academic performance was not achieved as the frequency of conducting this practice was below par. The principals had no definite time of visiting classes due to other administrative duties which played a negative role in influencing students' academic performance.

Target Setting and Academic Achievement

The research aimed to establish the influence of target setting on student academic achievement in public secondary school in Kiambu County. The respondents were required to indicate their level of agreement with statements related to target setting and student academic achievement in public secondary school in Kiambu County. The responses were as presented on Table 6.

Table 6: Level of Agreement with Statements Related to Target Setting

	Mean	Std. Deviation
My supervisor involves me while setting targets.	4.360	1.009
The supervisor allocates achievable targets.	3.750	1.365
My supervisor allows me to negotiate the targets being given	4.015	1.461
The targets set enable me to utilize my knowledge and skills.	3.368	1.332
The targets are in line with my goals as well as organizational overall goals	4.610	0.952
I am trained where I lack skills in order to achieve set targets	3.552	1.424
Employees are involved in setting targets by their supervisors for productivity	3.559	1.459

The findings showed that the respondents strongly agreed that the targets are in line with their goals as well as organizational overall goals as shown by a mean score of 4.610. The respondents further agreed that their supervisor involves them while setting targets as shown by a mean score of 4.360, their supervisor allows them to negotiate the targets being given as shown by a mean score of 4.015, the supervisor allocates achievable targets as shown by a mean score of 3.750, employees are involved in setting targets by their supervisors for productivity as shown by a mean score of 3.559, and they are trained where they lack skills in order to achieve set targets as shown by a mean score of 3.552. Moreover, the respondents were undecided on whether the targets set enable them to utilize their knowledge and skills as shown by a mean score of 3.368.

The interviewees were asked to indicate the common mode(s) of communication practices in their school. They indicated that the common mode(s) of communication practices include: notice boards, suggestion boxes and end of year reports. Other communication tools

used included: school calendars, minutes, internal memos, students’ notice boards and message box.

Students’ Academic Achievement

The respondents were asked to indicate their level of agreement with statements related to student's academic achievement in public secondary school in Kiambu County. The results were as shown in Table 7.

Table 7: Level of Agreement with Statements Related to Students’ Academic Achievement

	Mean	Std. Deviation
Students’ academic performance in this school is good	3.559	1.475
Students’ academic performance is dependent on the head teachers managerial practices.	3.279	1.489
When supervision regarding teaching and learning is done well, students seem to perform better	3.868	1.475
When teachers are provided with enough teaching/learning resources in the school the students’ is better.	4.574	1.066
There is setting of academic targets in the school	3.625	1.475
My head teacher demands that good performance in all subjects taught	3.831	1.523

Table 7 shows that the respondents strongly agreed that when teachers are provided with enough teaching/learning resources in the school the students’ performance is better as illustrated by a mean of 4.574. The respondents agreed that when supervision regarding teaching and learning is done well, students seem to perform better as illustrated by a mean of 3.868, their head teacher demands that good performance in all subjects taught as illustrated by a mean of 3.831, there is setting of academic targets in the school as illustrated by a mean of 3.625, and students’ academic performance in this school is good as illustrated by a mean of 3.559. The respondents were further undecided on whether students’ academic performance is dependent on the head teachers managerial practices as illustrated by a mean of 3.279.

From the interviews, the interviewees were asked to indicate other management practices they could recommend to enhance academic achievement in their school. They indicated that they included financial management practices, communication practices, planning, performance appraisal practices, and monitoring.

The study sought the KCSE mean scores for the last five years (2017- 2021) as shown on Figure 1.

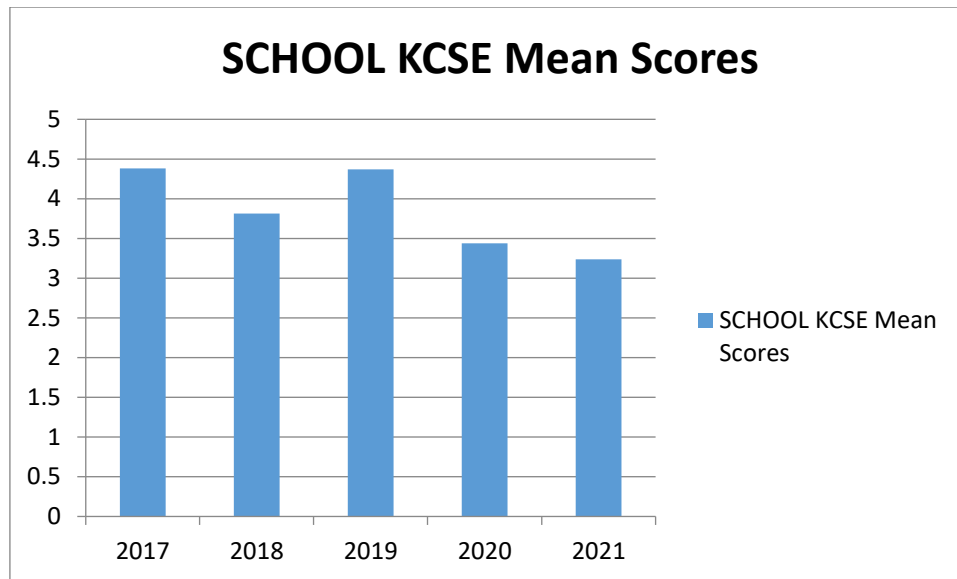


Figure 1: KCSE mean scores

From the findings, the KCSE mean scores throughout the years were fluctuating.

Multiple Regression Analysis

A multiple regression model was applied to determine the relative importance of each of the independent variables with respect to student's academic achievement in public secondary school in Kiambu County. The findings for regression analysis were presented in Table 8, 9 and 10.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.946 ^a	.896	.892	1.03858

a. Predictors: (Constant), Guidance and Counseling, Motivation by School Administrators, School Supervision Practices, Target Setting

The outcome of Table 8 found that adjusted R-Square value is 0.892 which indicates that the independent variables (school supervision practices, target setting, motivation by school administrators, and guidance and counseling) explain 89.2% of the variation in the dependent variable (students' academic achievement in public secondary school in Kiambu County). This implied that there are other factors that affect the students' academic achievement in public secondary school in Kiambu County attributed to 10.8% unexplained.

Table 9: ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1211.166	2	605.583	569.995	.000 ^b
	Residual	141.304	133	1.062		
	Total	1352.471	135			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Guidance and Counseling, Motivation by School Administrators, School Supervision Practices, Target Setting

The results shown in Table 9 revealed that p-value was 0.000 and F-calculated was 280.712. Since the p-value was less than 0.05 and F-calculated was greater than F-critical (2.4408), then the overall model was statistically significant.

Model coefficients provide unstandardized and standardized coefficients to explain the direction of the regression model and to establish the level of significance of the study variables. The results are captured in Table 10.

Table 10: Regression Coefficients

Model		Unstandardized Coefficients		Standardize d Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.163	1.375		-.118	.906
	School Supervision Practices	.529	.117	.376	4.528	.000
	Target Setting	.487	.083	.627	5.856	.000

The equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$) becomes:

$$Y = -0.163 + 0.529X_1 + 0.487X_2 + 0.763X_3 - 0.718X_4$$

The findings showed that if all factors (school supervision practices, target setting, motivation by school administrators and guidance and counseling) were held constant at zero, students' academic achievement in public secondary school in Kiambu County will be -0.163. The findings presented also show that taking all other independent variables at zero, a unit increase in the school supervision practices would lead to a 0.529 increase in the scores of students' academic achievement in public secondary school in Kiambu County. This variable was significant since the p-value of 0.000 was less than 0.05.

The findings also show that a unit increase in the score of target setting would lead to a 0.487 increase in the score of students' academic achievement in public secondary school in Kiambu County. This variable was significant since $0.000 < 0.05$. Overall, it was established that school supervision practices had the greatest influence on the students' academic achievement in public secondary school in Kiambu County followed by target setting.

Discussion of the Findings

This section presents the discussions of the findings in chapter four in relation to the literature review.

School Supervision Practices and Academic Achievement

The study found that the school supervision practices involves various stakeholders in school decision making process, involves the community and parents in school improvement process, emphasizes the professional development of their teachers, and strives to improve the classroom and learning quality. A study by Gage, Scott, Hirn and MacSuga-Gage (2018) established that the use of school supervision helps a teacher to have confidence and deliver content well during teaching. This ensures that lesson objectives are effectively achieved within the stipulated time hence helping the learner improve academically.

The research also established that it was uncertain whether the school supervision practices builds and maintains rapport with the school community and other stakeholders, supports the culture of trust, collaboration and support, and delegates leadership responsibilities to other teachers. The teacher is evaluated on teaching methodology, chalkboard use and mastery of the content in class. Eventually in the post observation is done at the end of the lesson where the supervisor advises the teacher on areas of improvement. This happens on a private place where the teacher is advised on areas of improvement during subsequent lessons (Klimova, 2019). In a study by Samoei (2014), 66.7% of the principals never visited teachers in classrooms to observe teacher's lessons and provide feedback. This implied that teachers were not in a position to learn from the wealth of experience from those supervisors on how to instruct effectively and improve on their teaching after the feedback. This subsequently implied that learners were not able to achieve lesson objectives better.

Target Setting and Academic Achievement

The research found that the targets are in line with their goals as well as organizational overall goals. Bal-Taştan et al. (2018) in Nigeria revealed that the performance in English language performance among the students improved given the higher mean scores that were reported. The researcher subsequently recommended target setting as a strategy towards enhancing academic performance of students, particularly in English language.

The study further found that their supervisor involves them while setting targets, their supervisor allows them to negotiate the targets being given, the supervisor allocates achievable targets, employees are involved in setting targets by their supervisors for productivity, and they are trained where they lack skills in order to achieve set targets. Karaci, Akyüz, Bilgici and Arici (2018) established that majority of the students who had set their own academic targets were typically showing improved academic performance as opposed to those who had no set academic targets. Students can easily set their own academic targets in schools which have also set targets. The targets set by the school should be the minimum threshold expected of the students in their academic performance. Students who set for themselves targets higher than those of the school are likely to exceed those set by the school and strive to achieve their own set targets.

Moreover, the research found that it was uncertain whether the targets set enable them to utilize their knowledge and skills. The findings disagree with Dotson (2016) who noted that students, teachers and school managers have been using target setting in the previous years in Kentucky. The utilization of target setting, according to Dotson (2016) has seen tremendous improvements in both local and state assessments. Furthermore, the study reports that the students who are now meeting the benchmarks for tertiary education minimum qualification for enrolments has significantly increased. This means that target setting by school principals, teachers and students is a strategy that can be used to enhance student academic achievement.

Conclusions

The study concluded that school supervision practices significantly influences the student academic achievement in public secondary school in Kiambu County. The research deduced that supervision assists, directs, stimulates and motivates teachers to enhance or improve effective teaching and learning process towards academic performance of students in public secondary school in Kiambu County. The study also concluded that despite there being numerous supervision practices, the principals are overly relying on selected practices which include checking and ensuring the preparation of schemes of work and checking and ensuring the use of lesson plans.

The research deduced that target setting influences student academic achievement in public secondary school in Kiambu County significantly. The study concluded that target setting enables everyone to know what they are expected to do and this improves relationships which leads to improved academic performance. When teachers set a mean target that will be achieved, they work towards a common goal and ensure that students are working towards an improved mean score, thus influencing performance in KCSE. Setting goals in learning institutions help to create a unity of purpose in the school between students and teachers; thus utilizing all the available resources and opportunities to ensure that the set targets are achieved.

Recommendations

The Ministry of Education and Teachers Service Commission should jointly come up with a programme to educate and train the teachers on the need and importance of instructional supervision. The teachers' attitude on instructional supervision could perhaps change. The Teachers Service Commission should employ adequate teachers so as to relieve the principals of classroom duties and have them engage in supervisory duties. Also, principals should supervise teachers and students closely for effective teaching and learning and for students to consistently excel in national examinations. They should ensure that there are teaching schemes for each subject in the curriculum to ensure coverage for the full period of the course in each subject.

Principals must create opportunities for understanding the needs, aspirations and frustrations of each staff members through effective communication, mutual trust and openness among all

the stakeholders. Therefore, there should be proper and free flow of information in the institutions regardless of the communication model adopted by the principal. School principals should start being team players instead of being managers by improving their communication skills. This will ensure that there is free flow of information in the schools hence better students' academic performance

REFERENCES

- Adams, R. V. & Blair, E. (2019). Impact of time management behaviors on undergraduate engineering students' performance. *Sage Open*, 9(1), 215-244.
- Alani, F., Khan, F. R. & Hawas, A. (2020). Do Time Management Factors Impede Students' Academic Achievement? A Case-study–Sohar University, Oman. *Humanities & Social Sciences Reviews*, 8(4), 201-212.
- Bakar, R. (2018). The influence of professional teachers on Padang vocational school students' achievement. *Kasetsart Journal of Social Sciences*, 39(1), 67-72.
- Bal-Taştan, S., Davoudi, S. M. M., Masalimova, A. R., Bersanov, A. S., Kurbanov, R. A., Boiarchuk, A. V. & Pavlushin, A. A. (2018). The impacts of teacher's efficacy and motivation on student's academic achievement in science education among secondary and high school students. *EURASIA Journal of Mathematics, Science and Technology Education*, 14(6), 2353-2366.
- Dotson, R. (2016). Goal setting to increase student academic performance. *Journal of School Administration Research and Development*, 1(1), 45-46.
- Dźwigoł, H. & Dźwigoł-Barosz, M. (2018). Scientific research methodology in management sciences. *Financial and credit activity problems of theory and practice*, 2(25), 424-437.
- Farokhzadian, J., Karami, A. & Forouzi, M. A. (2020). Health-promoting behaviors in nursing students: is it related to self-efficacy for health practices and academic achievement? *International journal of adolescent medicine and health*, 32(3), 65-81.
- Gage, N. A., Scott, T., Hirn, R. & MacSuga-Gage, A. S. (2018). The relationship between teachers' implementation of classroom management practices and student behavior in elementary school. *Behavioral disorders*, 43(2), 302-315.
- Gat, E. A., Warganegara, D. L. & Kosasih, W. (2021). The influence of online learning on students' academic achievement: Mediated by collaborative learning. *International Journal*, 10(1), 154-163.
- Kapur, R. (2018). Factors influencing the students' academic performance in secondary schools in India. *University Of Delhi*, 1(1), 575-587.
- Karaci, A., Akyüz, H. I., Bilgici, G. & Arici, N. (2018). Effects of Web-Based Intelligent Tutoring Systems on Academic Achievement and Retention. *Online Submission*, 181(16), 35-41.

- Kim, K. R. & Seo, E. H. (2018). The relationship between teacher efficacy and students' academic achievement: A meta-analysis. *Social Behavior and Personality: an international journal*, 46(4), 529-540.
- Klimontovich, Y. L. (2012). *Statistical theory of open systems: Volume 1: A unified approach to kinetic description of processes in active systems* (Vol. 67). Berlin: Springer Science & Business Media.
- Klimova, B. (2019). Impact of mobile learning on students' achievement results. *Education Sciences*, 9(2), 90-112.
- Lekwa, A. J., Reddy, L. A. & Shernoff, E. S. (2019). Measuring teacher practices and student academic engagement: A convergent validity study. *School Psychology*, 34(1), 109-121.
- Liebowitz, D. D. & Porter, L. (2019). The effect of principal behaviors on student, teacher, and school outcomes: A systematic review and meta-analysis of the empirical literature. *Review of Educational Research*, 89(5), 785-827.
- Luhmann, N. (2004). *Law as a social system*. London: Oxford University Press on Demand.
- Luhmann, N., Baecker, D. & Gilgen, P. (2013). *Introduction to systems theory* (pp. 50-5900). Cambridge: Polity.
- Luthans, F. & Stewart, T. I. (1977). A general contingency theory of management. *Academy of management Review*, 2(2), 181-195.
- Luthans, F. (1973). The contingency theory of management: A path out of the jungle. *Business Horizons*, 16(3), 67-72.
- Mackatiani, C. I. & Komo, M. N. J. G. D. (2018). Learning achievement: Illusions of teacher-centered approaches in Primary Schools in Kenya. *Learning*, 9(18), 22-41.
- Mohajan, H. K. (2018). Qualitative research methodology in social sciences and related subjects. *Journal of Economic Development, Environment and People*, 7(1), 23-48.
- Muia, P. N. (2018). *Influence of Principals' transformational leadership practices on academic performance in Kenya Certificate of Secondary Education in Mbooni West Sub-county, Kenya* (Doctoral dissertation, University of Nairobi).
- Mwangi, R. M. (2016). *Impact of school supervision practices on academic achievement in Kenyan secondary schools*. Doctoral dissertation, Case Western Reserve University.
- Nayak, J. K. & Singh, P. (2021). *Fundamentals of research methodology problems and prospects*. New Delhi: SSDN Publishers & Distributors.
- Nisar, M., Khan, I. A. & Khan, F. (2019). Relationship between Classroom Management and Students Academic Achievement. *Pakistan Journal of Distance and Online Learning*, 5(1), 209-220.
- Oguta, P. A., Getange, K. N. & Juma, S. (2021). Teacher Supervision Influence on Student's Academic Achievement in Secondary School Education in Migori County, Kenya. *International Journal of Innovative Science and Research Technology*, 4(5), 803-807.

- Onderi, H., Kiplangat, R. K. & Awino, J. (2019). *Factors Contributing to poor Academic Performance in Kenya Certificate of Secondary Education in Public Secondary Schools in Kericho County, Kenya*. Masters Report, Jaramogi Oginga Odinga University of Science and Technology.
- Ørngreen, R. & Levinsen, K. (2017). Workshops as a Research Methodology. *Electronic Journal of E-learning*, 15(1), 70-81.
- Oyugi, M. & Gogo, J. O. (2019). Influence of Principals' Leadership Styles on Students' Academic Performance in Secondary Schools in Awendo Sub-County, Kenya. *African Educational Research Journal*, 7(1), 22-28.
- Pandey, P. & Pandey, M. M. (2021). *Research methodology tools and techniques*. Romania: Bridge Center.
- Republic of Kenya. (2013). *The Basic Education Act 2013 No.14 of 2013*. Nairobi: Kenya Ministry of Education.
- Rinjit, K. (2020). *Research methodology*. London: Routledge
- Rizqi, P., Syamsul, H., Rofiqul, U., Kittisak, J., Andika Eko, P., Hasan Said, T. & Muhamad, S. (2019). Academic achievement and conceptual understanding of electrodynamics: Applications Geoelectric using cooperative learning model. *Jurnal Ilmiah Pendidikan Fisika Al-Biruni*, 8(2), 165-175.
- Scott, W. R. & Davis, G. F. (2015). *Organizations and organizing: Rational, natural and open systems perspectives*. London: Routledge.
- Senguo, E. A. & Ilomo, O. O. (2020). Effect of School Management on Students' Perceived Academic Achievement among Seventh-Day Adventist Secondary Schools in North-East Tanzania. *East African Journal of Education and Social Sciences (EAJESS)*, 1(3), 105-110.
- Singh, A. S. (2017). Common procedures for development, validity and reliability of a questionnaire. *International Journal of Economics, Commerce and Management*, 5(5), 790-801.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of business research*, 104 (2), 333-339.
- Suthakar, S., Karnan, P. & Venkatarathanam, B. (2019). A study on self-monitoring and academic achievement among ix standard students in Thiruvallur District. *Journal of educational research and extension*, 56 (3), 25-31.
- Taherdoost, H. (2016). *Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research*. Available at SSRN: <https://ssrn.com/abstract=3205040> or <http://dx.doi.org/10.2139/ssrn.3205040>
- Talaue, G. M., AlSaad, A., AlRushaidan, N., AlHugail, A. & AlFahhad, S. (2018). The impact of social media on academic performance of selected college students. *International Journal of Advanced Information Technology*, 8(4/5), 27-35.

- Tan, C. Y. (2018). Examining school supervision practices effects on student achievement: the role of contextual challenges and constraints. *Cambridge journal of education*, 48(1), 21-45.
- Tham, D. M. (2020). The Correlation of Non-English Majors' Use of Resource Management Strategies with Their Academic Achievement. *VNU Journal of Science: Education Research*, 36(4), 54-2.
- Usman, Y. D. (2015). The Impact of Instructional Supervision on Academic Performance of Secondary School Students in Nasarawa State, Nigeria. *Journal of Education and Practice*, 6(10), 160-167.
- Wanjala, J. W. (2021). *Principals' management Practices And Academic Achievement In Public Secondary Schools In Bungoma East Sub-County, Kenya* (Doctoral dissertation, MMUST).