

# Factors That Cause Differentiation in Academic Performance between Public and Private Primary Schools in Igembe North Subcounty, Meru County, Kenya

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**Abstract:** *Learners' academic performance has lured the interest of scholars, parents, policy makers, planners and curriculum implementers. The main objective of schools is to ensure that learners achieve academic excellence. Private primary schools in Igembe North have been performing far much better than public primary schools. It is not clear as to what factors that cause this difference. This study aimed at investigating the factors that caused differentiation in academic performance between public and private primary schools in Igembe North sub county of Meru County, Kenya. The study employed ex-post-facto research design. The target population included 83 head teachers, 83 senior teachers and 3550 pupils, making a total of 3716 subjects. A sample of 250 respondents - 25 head teachers, 25 senior teachers, 200 pupils was randomly and proportionately drawn from the target population. The researcher used questionnaires to collect data from the respondents. Pilot study was done in two schools outside Igembe North Sub County, to assess the quality of the instruments. Once the quality of the instruments was ascertained, the researcher visited the selected primary schools and planned with the school head teachers on data collection in their respective schools. After all the respective data was collected it was sorted out and then analysed using Statistical Package for Social Sciences (SPSS) version 18. Descriptive,  $t$  – test, and Chi square statistics, as well as, Pearson correlation analyses were used to analyze factors that cause differentiation in Academic performance between public and private primary schools in Igembe North Sub County. It was established that eight of the ten head teachers' characteristics items significantly varied between private and public primary schools. Besides, six of the ten teachers' characteristics items, nine of the ten pupils' characteristics items and all the eleven parents' characteristics items differed significantly between private and public primary schools. It was consequently recommended that the TSC, ministry of education and head teachers should stimulate the necessary motivation among public primary schools teachers, provide the necessary and adequate teaching and learning resources, as well as, encourage participation of parent in school teaching/ learning process, respectively.*

**Keywords:** *Public Primary Schools, Private Primary Schools, Academic Performance, Head Teachers/ and Teachers Characteristics.*

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## 1.0 Introduction

### 1.1 Background of the study

According to Aremu and Sokan (2002), the performance of pupils academically, mostly for the learners in primary school, indicates the effectiveness of the institution. In addition, the academic performance plays a crucial part in determining the future of the learners and the country at large. The academic results are a phenomenon of concern and this has attracted several researchers towards trying to unveil the factors that influence good academic excellence. Learners' academic performance has raised the concern of scholars, guardians, policy, planners and implementers of education. Adeyemo (2001) states, that schoolwork mainly directs its efforts towards achievement of academic excellence. Adeyemo adds that the learning institutions may have other outlying objectives but the focus and weight must always be placed in attainment of sound academic scholarship.

The influence of environment on learners' academic performance is still prevalent. School related factors and the home environment plays major roles in influencing the academic performance of learners. As indicated by Onyango (2001) the manner in which school heads administer the planning of curriculum execution process as far as timetabling, plan of work for all the study subjects, class size and sourcing of educational programmes resources, influence scholarly achievement. Onyango (2001) additionally noticed that absence of training adversely limits the administration of educational programmes and quality maintenance of education. Teachers likewise have an immediate obligation to shape a learner's scholastic accomplishment, and are the utmost critical school-based aspects in their learning (Aaronson, Barrow, & Sander, 2007). Instructor attributes, for instance, certification, years of education, content knowledge, and long stretches of teaching experience were discovered to play a part on the achievements of a student (Goldhaber & Brewer, 2000).

There is a consciousness of the importance of the family environment or home structure on academic accomplishment of the learner. The condition of the home influences learners' psychological, economic, emotional and social condition. In the view of Ajila and Olutola (2000), the environment of the home has an effect on an individual since the parents and guardians are the initial agents of socialization in a person's life. This originates from the fact that a child's level of performance and their response to the situations of life is influenced by foundation or setting of their family. The encounters of a child at home with parents and other persons play a huge part in molding the kid's identity and character regardless the school being responsible for the encounters that build a person's life during school periods. The environment of the child's home may influence them since the guardians play the primary part on a person's socialization life. This is based on the fact that the setting and foundation of a minor's home has impact on

the level of their academic achievement, as well as, their response to life situations. Various studies have demonstrated that academic achievement is associated with identity, inspiration, development, cognition, feelings, occupations, style, conduct, hobbies, thinking, and processing of information (Silvia, 2006). This implies that parental inclusion has a part to play in education accomplishment of a learner.

A couple of studies (Hula, 2003; Achola, 2003 and Koech, 2009) have confirmed that personal characteristics particularly individual interest of pupils to be an aspect that has a general effect on processing of text and reading. Despite the fact that there exist prove that seductive elements of interest consist of unfavorable impacts as it causes intellectual capacity impairment; interest advances understanding and memory for a number of reasons. First, interest builds regard for a text; interest influences individuals to process a text more profoundly; and interest advances great metacognitive methodologies" (Silvia, 2006). "Interest and enthusiasm for learning, could most presumably result topsychological traits as well as an exceptionally solid emotion of knowledge. Besides, it could be a devastating, attractive and constructive emotion, a feeling of being charmed, mesmerized, strengthened and stimulated to intellectually process data substantially speedier and more precise, all the same ensuring best utilization of psychomotor qualities such as self-control aptitudes, self-restraint, harder and quicker workingwitted with ideal determination.

The nature and quality of one's enthusiasm for schooling and learning may be associated with a crucial part of behavior (Anastasi & Urbina, 2007). The personality and enthusiasm, may significantly affect occupational and educational accomplishments, as well as, the interpersonal affairs. Values are plainly associated with life decisions and are frequently deliberated in conjunction with interests and inclination. Considering the perspective of the learner and their educational achievement objectives, a thought of their interest might have concrete criticalness. The interest is mandatory for the leaner to dedicate time for their academic work and study.

There is an extensive interest in the varying academic outcomes between kids who study in private and those who attend public schools, and particularly in the components behind these variances. Numerous researches that endeavored to solve this inquiry have utilized informational indexes containing detailed data on leaners, however very little data exists on the qualities that cause differentiation. Therefore, these studies have represented a learner's attributes and deciphered the residual variances in scholarly results as the impact of private schools. A research by Frenette and Chan (2015) revealed that in the United States and Canada and, approximately 6% of 15-year-olds study in private schools. These institutions are defined as schools controlled by private entities but the government may chip in and lower some of the cost. However, parents have to generally incur more costs for their children to attend private schools. Private secondary school learners scored fundamentally higher, compared to their counterparts in public secondary

schools pursuing, mathematics, and science assessments at age 15, and by the age of 23 years, they had acquired higher levels of scholarly accomplishment. Two factors reliably characterized the variances in scholastic outcomes amongst government and private school learners. These include the socio-economic qualities and peers. Learners who study in private secondary institutions will more likely have good financial attributes emphatically linked to the scholarly outcomes and their schooling counterparts have guardians with university education. Private schools were concentrated in specific areas (and hence, they must abide with the common provincial programs for them to qualify to award the provincially recognized diplomas), however they had assets and practices similar to those funded by the government. The province in which the learners attended school was responsible for a huge degree of the discrepancies in academic outcomes measured in secondary schools. These were measured in terms of the examination scores and secondary school graduation rates), yet by generally, not at the post-high school level. The school's practices, properties and resources played practically zero role in representing the dissimilarities in academic results (Frenette & Chan, 2015).

Results from a study by Hareesol, Mohd and Mohamad (2016) examining disparities in educational outcomes between the private and the government sponsored schools in Thailand, concluded that the private institutions produce better results compared to the public schools. However, learners from backgrounds of low income in government schools performed better compared to their counterparts from higher income families. A study carried out by Gbadegesin, Kemi and Emmanuel, (2017) comparing the scholarly outcomes of understudies in the private and public secondary schools in the theme of economics in Nigeria's Lagos State resolved that the learners who attend private institutions had better academic performance compared to their counterparts in government institutions.

The Kenyan education system fits under the examination-oriented education category. The education's quality is evaluated in terms of the number of learners who pass the national examinations (Mugenda & Mugenda, 2003). Many educationists attest that public primary schools in Kenya have what it takes to perform well in national examinations. This is because they have trained human resource, abundant teaching and learning materials, among other required resources for good performance. However, public primary schools still trail behind private primary schools. The ranking of schools in national examinations reveals that private schools dominate top positions nationally and also at the sub-county levels. Better performance of pupils in private schools have forced many parents to enroll their children in private schools and has also left the public wondering what factors could be responsible for the differences in academic achievement between government sponsored and private schools in Kenya. (Rong'uno, 2017). Hence, this study aims at bridging the gap.

The release of Kenya Certificate of Primary Education examination results on 28<sup>th</sup> December 2013, indicated that pupils from private schools scooped all the top ten slots. Besides, these institutions boasted 76 learners in the best 100 pupils in the country. This is the most glaring pointer that while the free learning programme prevailing in recruiting numerous pupils in schools; it likewise gambled bolting out pupils of the poor from public high schools due to the declining examination results of government supported schools. Data from the office of the District Education Officer in Igembe North Sub-County in 2014 as shown in Table 1.1 shows that the best schools in Igembe North Sub County between 2008 and 2013 were private schools. This was a reflection of the situation at the national level and it was therefore, necessary to investigate the factors that were causing the differentiation in performance between private and private schools in Igembe North Sub County (DEO, 2014).

Table 1.1

Schools Mean Score for Igembe North Sub County

Schools	2008	2009	2010	2011	2012	2013	Total	Mean score
Private	296.55	291.50	301.40	295.28	305.72	303.14	1793.59	298.93
Public	223.44	233.80	223.23	225.97	220.68	219.97	1347.09	224.51

Source: D.E.Os Office (2014)

The statistics in Table 1.1. Shows a great difference between performance in public primary schools and private primary schools. The researcher's interest was therefore, to unearth the factors that caused differentiation in educational outcomes in primary schools in Igembe North Sub County.

## 1.2 Statement of the Problem

One of the things that the Kenya Government promised upon independence in 1963 was that it would use education to bridge the difference between the poor and the financially stable. This manifesto was plainly articulated in Sessional Paper No. 10 of 1965 (Education Watch, 2006). The entrenchment of private school system, though desirable and democratic, has ensured that the very disparities continue to increase day by day. The Government of Kenya endeavored to provide Free Primary Education (FPE). This programme brought about a significant increase in the provision of instructional materials in the public schools. Most public schools, are well staffed. Teachers in public institutions have better pay compared to those in private primary schools. Regardless of the government investing heavily in public schools, academic performance of public schools has been comparatively poorer than that of private schools. Although pupils in private schools are composed of not more than 10 percent of the KCPE candidates, they

take up almost 60 percent of places in the best public secondary schools (Education Watch, 2006).

Despite public schools being affordable to many average families in Kenya private schools are coveted by many people in Igembe North Sub County. Many parents in Igembe North have opted to take their children to private schools because performance in public schools lag behind that of private primary schools. Some parents struggle to an extent of organizing fundraisers to be able to pay fees for the children in these private schools despite the government's effort to provide Free Primary Education. It was, therefore, necessary to investigate the factors that cause differentiation in performance between learners in government primary schools and those in private ones to be able to help correct the difference.

### **1.3 Research Objectives**

To achieve the goal of the study the focus was on the following specific objectives:

- i. To examine characteristics of the head teachers that causes differentiation in academic outcomes between pupils in public and private primary schools in Igembe North Sub County, Meru County, Kenya.
- ii. To investigate teachers' characteristics that causes differentiation in educational outcomes between learners in public and private primary schools in Igembe North Sub County, Meru County, Kenya.

### **1.4 Hypotheses**

The following were the hypothesis helped in accomplishing the aims of the study:

- H0<sub>1</sub> There is no statistically significant difference in head teachers' characteristics that cause differentiation in academic outcomes between pupils in government sponsored and private primary schools in Igembe North Sub County, Meru County, Kenya.
- H0<sub>2</sub> There is no statistically significant difference in teachers' characteristics that cause differentiation in academic performance between pupils in public and private primary schools in Igembe North Sub County, Meru County, Kenya.

### **1.5 Scope of the Study**

The research study concentrated on the comparison of academic outcomes between public and private primary schools in Igembe North Sub County of Meru County. The research participants were nine teachers from both public and private primary schools within the Igembe North Sub County respectively. Kenya Certificate of Primary Education results were evaluated as the measure of educational performance.

### **1.6 Limitations of the Study**

Since the researcher covered only Igembe North Sub-county, the findings could only be generalized to other areas with caution. The researcher had no immediate control of

intervening variables in light of the fact that their indication had just happened or due to that, intrinsically they cannot be controlled. Attempts were made to get a considerable large sample to overcome this limitation in addition to randomization in selecting the subjects.

## **2.0 Literature review**

### **2.1 Introduction**

This chapter studied related scholarly work on academic performance among private and public primary schools, in Igembe North Sub County, Meru County, Kenya. The academic performance was presumed to be dependent on the head teachers' characteristics, teacher's characteristics, pupil's characteristics, and parental characteristics. The chapter also covers the theory on which the study was based, as well as, the conceptual framework on the connection between the variables that were included in the study.

### **2.2 Theoretical foundation of the study**

A theoretical framework is an assembly of unified ideas with respect to the previous studies. This study was based on Operant Conditioning Theory. Operant Conditioning Theory is a behavioural Theory of learning founded by BF Skinner. This theory uses behaviourist approach which describes an individual as being conditioned by environmental events. This theory is based on stimulus- response reinforcement model. According to Skinner's operant conditioning, learning involves forming bonds between situations (stimulus) and desired responses asserting that the link between a situation and a response is strengthened when they are trailed by a sufficient state of affairs (reinforcement). Skinner emphasized the role of reinforcement in shaping behaviour by reinforcing desired responses or their approximations. Operant responses which are reinforced get a higher possibility of recurring.

The study fits into operant conditioning theory. Head teachers characteristics, teachers characteristics, pupils characteristics and parental characteristics are being considered as the stimulant while performance is considered as the response. The learning environment was considered as the environment for the conditioning; hence, a comparison between private and public primary schools was done. This is based on the understanding that if the learning environment is not conducive, some of the pupils discontinue their school attendance or post poor results in schools. If the learning environment is conducive there will be positive results on pupils' academic performance.

## 2.3 Empirical Literature Review

### 2.3.1 Head Teachers' Characteristics

The most influential person in a primary school is the head teacher. According to Yator (2003), the head teachers' administrative competencies sets the standard, the tone, the direction and the school's tempo. Yator (2003) further argues that apart from setting the condition for learning and spearheading the professionalism level, the managerial competencies of the head teacher are essential to the confidence and self-esteem of the teachers and also sets the level of concern for what the pupil may or may not become. Ireri (2007) argues that success or failure of an organization depends on many factors, among them leadership approaches and attributes of the head teacher. According to Griffins (2006), performance depends on a happy atmosphere, the skills and devotion of teachers. A happy atmosphere cannot be achieved without appreciation of leadership style. Concerning the current United Kingdom government Gewirtz (2007) says that it is assumed that the so called failing schools are largely a product of poor leadership and teaching and that through the cascading of best practice all schools can be successful (Mugambi, 2003), states that a compelling school has a leadership position that expands on and builds up a team approach to move towards the dream of progress and success. The vision involves opinions on ways to make the school improve, having school practices and policies that promote planning and targets setting, as well as, bettering the physical appearance of the institution, improving the collective prospects about student conduct and success and investing in healthy and advantageous associations with the community and the guardians. According to Kombo (2008), the primary reason behind some schools posting better examination results than others was due to the fact that some of the head teachers ensure proper management and administration of the student's learning process, while others relax in fulfilling this mandate.

According to Oyetunyi (2006), the school head teacher should be the person to start and encourage parental inclusion in a school, since guardians are imperative in the administration of schools. Lydia and Nasongo (2009) noted that, the head teachers who utilize collaboration by guaranteeing involvement of guardians, teachers and learners in the running of the school, upgrade the performance and outcomes of their institutions.

Management and administration of education have become terms that are occasionally utilized synonymously. Most of the times these terms are utilized to allude to what school heads and principals do in their every day schedule at these institutions. Nevertheless, in different occurrences the terms have been utilized to indicate two unique duties that are tasked to two dissimilar offices, and therefore, a manager and an administrator. The riddle we have to solve with respect to educational management and educational administration is, whether the head teachers play the two roles and perform the functions of management and administration within the school set up. Mugambi (2003) notes that use of the two

notions in Kenya's schools irrespective of whether the schools are sponsored by the government, also identified as the public schools or non-government sponsored schools to define the private institutions, the school head teacher as the chief executive officer. In public learning institutions, the head teacher is government employed but for non-public that is not usually the case.

The head teachers in public institutions need to oversee adherence to government regulations as well as management of material and human resources at their institutions. In that capacity, the head teacher has the main duties of performing management and administrative responsibilities. Besides, the head teacher may perform other tasks and responsibilities such as acting as the link between the school, the County and Sub County office, as well as, the community and the public. Furthermore, he is entitled to ensuring and maintaining a proper state of the school assets such as furniture, school buildings, equipment and other facilities. The duties and responsibilities noted above are administrative and management functions which affect pupils performance.

Apart from the management and administrative functions indicated, the head teacher is expected to perform the role of the school's instructional leader of the curriculum. The school head is supposed to ensure that there is accurate syllabi and curriculum understanding and implementation. Furthermore, head teachers should regularly evaluate the performance of the teachers and recording reports as required. They should assess the objectives of the curricular, the school's projects, and ensure consistent updating of the official records. Lydiah (2009) observed that a focus on the primary schools head teachers in one district in the former Eastern Province elucidated the duties of school heads as, adoption of performance management in the learning institution to guarantee obedience to regulations and guidelines by all the members of the staff. In a few occurrences, the institution's development associations and committees helped the school head in managing the school. These associations and committees had been implemented with the perspective of not just helping the head teachers with school administration matters, but also to invent the notion of democracy inside the training framework.

As deduced from the aforementioned theoretical literature, the past studies done have not in particular tried to investigate the link between the headteachers characteristics to the performance of pupils in both public and private primary schools setups. Consequently, the study aimed at finding out how headteachers characteristics could be the source of pupil's differences in performance between pupils in public and those in private primary schools.

### **2.3.2 Teachers Characteristics and their Influence on Academic Performance**

The teacher is most indispensable factor in effective administration of any education system (Olatunde, 2009). The nature of education relies upon the teachers as it is reflected in their execution of their obligations and duties (Akiri & Nkechi, 2009).

Teachers have been portrayed to have a vital effect on learners' scholarly accomplishments. As per Afe (2001), teachers assume a critical part in academic achievement since they are fully in charge of making interpretations of strategies and standards in light of work interacting with the pupils.

Teachers' characteristics include professional qualifications, years of teaching experience and the instruction techniques frequently used. Attributes of teachers given are knowledge of respective subjects, experience in use of educational materials and learner-teacher relationship (Orotho, 2003). As indicated by Goldhaber and Brewer (2000), there exists a constructive relationship between teachers' readiness in the topic or subject they teach and the learners' scholastic achievement. Poor scholastic results of learners in Nigeria was linked to unsatisfying teacher execution as far as finishing the teaching tasks, negative state of mind towards work and poor teaching propensities that have been credited to poor inspiration. Daha (2011) suggests that scholarly capability, proficient capability, refresher and supplemental course training and teacher experience are essential characteristics in empowering the teacher assist the learners in performing scholastically. The teacher's competence, capability, cleverness and inventiveness to viably use the fitting dialect, philosophy and accessible instructional materials are essential in empowering the teacher to draw out the best in pupils regarding educational achievement.

Educator qualities are essential for academic strategy. Granted that teachers are most appropriate and most ready to upgrade the learner's outcomes and are employed should be the key duty for policy makers. Wayne and Youngs (2013) clarify that an extensive literature regarding teacher attributes and academic results exist. The emphasis on the investigations fluctuates between inquiries regarding the number of teachers and turnover and issues encompassing teacher quality. In numerous nations (Kenya included) certain capabilities should be acquired before teachers are allowed to enter the teaching profession. A significant part of the literature on teacher attributes and learners' performance is included in the investigations of the effect of these and other credentials. Endeavors have been made to distinguish the trends in the nature of teachers, and the inquiry whether attributes of teachers in various parts of the schooling system exist, is frequently explored.

According to Huha (2003), an instructor should be equipped with the theoretical knowhow regarding the learning behavior of human beings and they ought to establish a range of teaching skills that should be convinced that they facilitate the learning of students. The tutor must portray attitudes that boost education and truthful human relationships. Besides, they must possess knowledge of subject matter. Wachiye (2006) states that the tutors are responsible for boosting schools performance since the tutors are crucial in the learners' school life.

The connection between instructors attributes and understudy execution is shockingly subtle. Scholars have thought that it was hard to discover aspects of educator training that correspond with the learners outcomes in a statistically noteworthy manner (Chingos and Peterson, 2011). Conflicting or uncertain outcomes happens regularly. Summers and Wolfe (2007) researched the effect of educator scores on Philadelphia's National Teacher Evaluation on performance among understudies in elementary institutions of learning in that state. They found a desirable connection between instructor performances and understudy scores on standardized examinations.

In a research to identify the elements responsible for learner's outcome in language and mathematics in Mexico Anderson (2010) found a constructive and statistically noteworthy effect in both language and arithmetic for teachers making utilization of a more collaborative and intelligent way to deal with instructing, rather than a customary approach in which exercises were ruled by teachers talking and giving instructions. She likewise discovered confirmation of a positive connection between duration spent educating and results in the two subjects. An intriguing and essential outcome is the positive and noteworthy effect on both arithmetic and linguistics detected for teacher training, amid the time in which the research was led.

Confirmation from Pakistan proposes that teacher capabilities are undoubtedly critical for understudy execution. Arif and Saqib (2013) investigated the personal and family qualities of a learner, the attributes of their schools, geographic attributes, and a scope of teacher attributes. They found that whether a teacher has a bachelor's degree or higher were decidedly and essentially related with the learner's outcome in dialect, arithmetic and general knowhow, and a measure apprehending outcomes in all the three.

An earlier study conducted in Pakistan by Behrman et al, (2007) build instructor quality records for arithmetic and language. These directories are linear elements of instructor delivery on proficiency or numeracy examination, academic attainment, and showing background and its squared term. Besides, they controlled for learners' demographic attributes and family foundation, school attributes, learner to educator proportions and understudy capacity. After controlling these aspects, they found that an encouraging and statistically critical connection between the instructor quality record and understudy results in mathematics and proficiency. This is despite the fact that the impact is by all accounts bigger in proficiency an intriguing outcome, since an impact, if saw by any stretch of the imagination, is generally more grounded on account of mathematics.

Angrist and lavy (2011) discovered affirmative appraisals of the effect of in service instructor preparation on both language and mathematics in secular elementary learning institutions in Jerusalem. They argue that their outcomes are powerful to various estimation methods, in particular regression, matching and difference in difference procedures. The way that the impact is just seen in secular schools might be because of

the way that the preparation programme was presented later and on smaller scale in religious learning institutions. Results acquired for formal instructor capabilities were additionally integrated with the greater part of the studies directed producing uncertain outcomes. Among those that returned outcomes, both undesirable and constructive effects were obtained (Wayne and Youngs, 2003). The above discoveries leave one to ask whether the qualification of a tutor were critical at all in the scholarly achievement of learners.

Another research that finds a connection between noticeable teacher attributes and a learner's performance was led by Slater et al. (2009) utilizing UK information for 7 000 pupils (aged 14 years) sitting for GCSE Key stage 4 tests. They investigated whether the perceptible qualities of teachers were associated or correlated with proportions of the teacher viability. Teacher adequacy was estimated as the impact that teachers have on a learner's performance on examinations. The perceptible qualities accessible were teacher's sexual orientation, age, academic qualifications and educating experience. None of these qualities were measurably huge in clarifying teacher viability. Intriguing to note, in any case, is that Slater et al. (2009) found a connection between the ability of understudies and teacher's effectiveness, proposing non-arbitrary distribution of learners inside a school.

Assigning understudies to tutors so that less capable understudies with more viable educators may well upgrade the positive effect of instructor adequacy. Rauden Bramble et al (2003) examined whether in-service teaching influenced a learner's performance. They gauged in-service teaching by involving a variable catching the measure of contact (recorded in days) of in-service preparation, and a variable regulating for the occasions that teachers were internally supervised.

They additionally incorporated a measure of whether a teacher had completed a bachelor's degree. They saw that despite the fact that in-benefit preparing did not seem to have any noteworthy impact on learners' outcomes; supervision administered internally by head teacher had significant and huge impact. They clarified the impact of rigorous internal supervision as being as expansive as a teacher acquiring a four-year college education. It seems then that albeit formal in-service preparation fails to enhance teacher quality, a sort of teaching and "coaching" technique does. Results from an investigation utilizing Cambodian data Marshall et al. (2009) indicated positive and critical impacts, as well as, the performance of sixth grade pupils on language tests.

## 2.9 Conceptual Framework

The conceptual framework portrays the association or the link between the independent and the dependent of the research. This is depicted in Figure 2.1

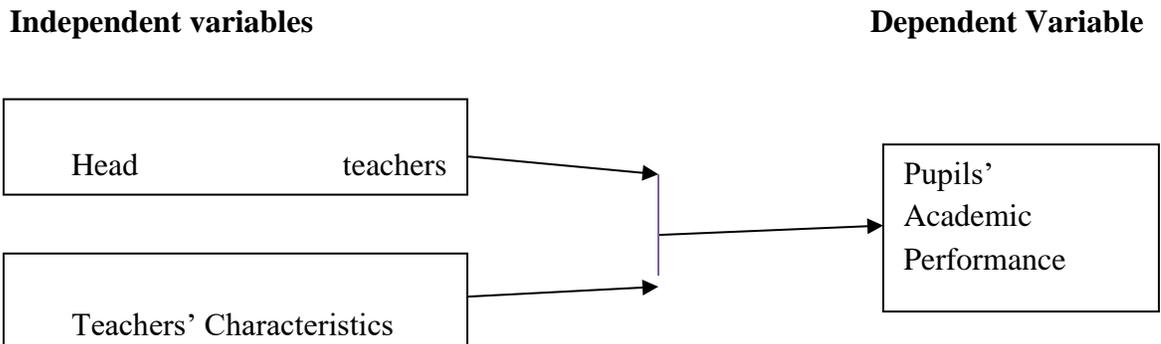


Figure 2.1: Conceptual framework on variables in the study

In this case, the dependent variable consisted of the head teachers and teachers characteristics. The head teachers characteristics evaluated included training and qualification, experience, commitment, monitoring of pupils assignment and class attendance, motivating pupils, paying attention to weak pupils as well as ensuring adequate teaching and learning resources. The teachers' characteristics included their professional training and qualifications, years of teaching experience as well as the extent to which they practiced their professional responsibilities as teachers. The dependent variable was measured in terms of KCPE performance.

## 3.0 Research Methodology

### 3.1 Research Design

The research was conducted using *ex post facto* research design. Best and Khan, (2004) states that *ex-post factodesign* sets possible outcomes or backgrounds of occurrences that have already happened and are not engineered or manipulated by the investigator. This design was considered for this study because it involved studying conditions or events that had already occurred. (Head teacher's characteristics and teacher's characteristics

### 3.2 Target Population

According to Mugenda and Mugenda (2003) a target population is a large population from which a sample is drawn. In this study the target population was 3716 subjects distributed as indicated on table 3.1

*Table 3.1 Target Population*

<b>Category</b>	<b>Public school</b>	<b>Private Schools</b>	<b>Total Population</b>
Head teachers	54	29	83
Senior Teachers	54	29	83
Pupils	2632	918	3550
Total	2740	976	3716

### **3.3 Sample Size and Sampling Procedures**

A sample size of 250 subjects was drawn from the target population. A sample size of 25 head teachers and 25 teachers were determined using Kothari's (2009) recommendation of 30%. According to Kathuri and pals (1993), a sample of 100 is adequate for analysis as long as one of the samples is less than 20. These two recommendations were used to determine the sample size as indicated in table 3.2. Proportionate and random sampling methods were used to select subjects from the two categories of schools. All the pupils and the teachers were selected from the respective schools where the head teachers were drawn from.

*Table 3.2 Sample Size in Relation to the Target Population*

<b>Category</b>	<b>Population per Category</b>	<b>Public school sample</b>	<b>Private school sample</b>	<b>Total sample size</b>
Head teachers	83	13	12	25
Senior Teachers	83	13	12	25
Pupils	3550	52	48	100
Total	3716	78	72	150

### **3.4 Data Collection Instruments**

Data was collected using self-administered structured questionnaires. A questionnaire is a research instrument that gathers data over a large area (Kombo & Tromp, 2006). Questionnaires were chosen because they take less time and energy and are less expensive. According to Mugenda and Mugenda (2003), questionnaires are ideal for survey study and are widely used to obtain information about current conditions and practices and to make enquiries about attitudes and opinions quickly and in a precise form.

Two questionnaires were developed to get information on factors that cause differentiation in academic performance between public and private primary schools in Igembe North Sub County. The head teacher's questionnaire sought data on teachers'

characteristics, while the senior teacher’s questionnaire contained items on head teachers’ characteristics. Besides, the pupils’ questionnaire had questions on pupils’ characteristics and their parents’ characteristics. Closed ended questions were preferred over open-ended questions to enhance reliability and validity of data plus effective data analysis.

### 3.9 Data Analysis and Presentation

Burns (2000) defines data analysis as categorizing, manipulating and summarizing of data in order to obtain answers to research questions. The data collected was mainly quantitative. Data was coded appropriately as per the responses to different questions. The Statistical Package for Social Sciences (SPSS) was used as an aid to analyze the quantitative data. Both descriptive and inferential statistics were used. Specifically, *t* – test, Chi square statistics and Pearson correlation were utilized to analyze the factors associated with differentiation in academic performance between public and private primary schools in Igembe North Sub County.

## 4.0 Results and Discussions

### 4.1 Influence of head teachers' characteristics on pupils' academic performance

The senior teachers were asked to rate the influence of head characteristics on pupils’ academic performance. An overwhelming 96.0% (Table 4.1) indicated that head teachers’ characteristics influenced pupils’ academic performance to a very large extent, while 4.0% stated that head teachers’ characteristics influenced pupils’ academic performance to a large extent. These results indicate that in the opinion of the senior teachers, head teachers’ characteristics had a significant influence on pupils’ academic performance.

Table 4.1 *Head Teachers' Characteristics and Pupils' Academic Performance*

	Frequency	Percent
Very large extent	24	96.0
Large extent	1	4.0
Total	25	100.0

The study sought to establish the relationship between head teachers’ characteristics and 2017 KCPE mean score. A Pearson product-moment correlation was done to examine the relationship between head teachers’ characteristics and 2017 KCPE mean score (Table 4.2). These results indicate that there was a positive correlation between head teachers’ characteristics and 2017 KCPE mean score,  $\text{Pearson's } r(25) = .721, p < .001$ . These results correspond with the findings by Kombo (2008) who observed that the primary reason behind some schools posting better examination results than others was due to the fact that some of the head teachers ensured proper management and administration of the student’s learning process, while others relaxed in fulfilling this mandate. It also supports

the argument of Yator (2003) who observed that the head teachers' administrative competencies set the standard, the tone, the direction and the school's tempo. Hence, the variations of head teachers' characteristics were significantly associated with disparity in academic performance between pupils in public and private primary schools in Igembe North Sub County.

Table 4.2

*Head Teachers Characteristics and 2017 KCPE MeanCorrelations*

		Head teachers characteristics	2017 KCPE mean score
Head teachers characteristics	Pearson Correlation	1	.721**
	P – Value		.000
	N	25	25
2017 KCPE mean score	Pearson Correlation	.721**	1
	P - Value	.000	
	N	25	25

#### 4.5.12 Influence of teachers' characteristics on pupils' academic performance

The head teachers were asked to rate the influence of teachers' characteristics on pupils' academic performance. As per the head teachers characteristics, a whopping 96.0% indicated that teachers' characteristics influenced pupils' academic performance to a very large extent while 4.0% stated that teachers' characteristics influenced pupils' academic performance to a large extent (Table 4.3). These results indicate that in the opinion of the head teachers, teachers' characteristics had a significant influence on pupils' academic performance.

 Table 4.3 *Teachers' Characteristics and Pupils' Academic Performance*

	Frequency	Percent
Very large extent	24	96.0
Large extent	1	4.0
Total	25	100.0

The study sought to establish the relationship between teachers' characteristics and 2017 KCPE mean score. A Pearson product-moment correlation was done to examine the relationship between teachers' characteristics and 2017 KCPE mean score (Table 4.4).

These results indicate that there was a positive correlation between teachers' characteristics and 2017 KCPE mean score, Pearson's  $r(25) = .872, p < .001$ . These results agree with the findings of Afe (2001) who observed that teachers assume a critical part in academic achievement since they are fully in charge of making interpretations of strategies enthusiastically and standards in light of work, interacting with the pupils. It also corresponds well with the findings of Goldhaber and Brewer (2000) who observed that poor scholastic results of learners in Nigeria is was linked to unsatisfying teacher execution as far as finishing the teaching tasks, negative state of mind towards work, poor teaching propensities that have been credited to poor inspiration.

The results also support the findings of Wachiye (2006) who indicated that the tutor is responsible for boosting a school's performance since they are crucial in the learner's school life. Besides, it is in harmony with the finding of Olatunde (2009) who argued that the teacher is most indispensable factor ineffective administration of any education system. Moreover, the results confirms the findings by Slater et al. (2009) as well as Cambodian Data Marshal et al. (2009) whose studies demonstrated a connection between the teachers' effectiveness and the academic performance of the learners. Hence, the variations of teachers' characteristics were significantly associated with disparity in academic performance between pupils in public and private primary schools in Igembe North Sub County. A further analysis of the relationship between teachers' characteristics and 2017 KCPE mean scores yielded a high and positive correlation between the two variables (Table 4.4.). This stamped the influences that the teachers' characteristics to a great extent influence pupils' academic performance.

Table 4.4 *Teachers Characteristics and 2017 KCPE Mean Score Correlations*

		2017 KCPE mean score	Teachers characteristics
2017 KCPE mean score	Pearson Correlation	1	.872**
	P – Value		.000
	N	25	25
Teachers characteristics	Pearson Correlation	.872**	1
	P – Value	.000	
	N	25	25

## 5.0 Conclusions and Recommendations

### 5.1 Conclusions

The study concluded that variations of head teachers' and teachers' characteristics were significantly associated with disparity in academic performance between pupils in public and private primary schools in Igembe North Sub County. Hence, the primary reason behind private schools posting better examination results than the public primary schools was due to the fact that the head teachers in private primary schools ensured proper management and administration of the student's learning process while their counterparts in public primary schools relaxed in fulfilling this mandate. Likewise, teachers' in private primary schools played a critical part in academic achievement since they were fully in charge of the learning process and were a source of inspiration to the learners.

### 5.2 Recommendations

The following recommendations have been made based on the conclusions of the study.

- i. The Teachers Service Commission, Ministry of Education and head teachers' should stimulate the necessary motivation among the public primary school teachers; provide the necessary adequate teaching and learning resources so that the teachers can play their teaching professional role effectively
- ii. The Teachers Service Commission and Ministry of Education should ensure that the head teachers' effectively carry out their responsibilities of curriculum supervision as well as ensuring effective resource (human and materials) mobilization.

### 5.3 Areas for further research

A further analysis of the relationship between teachers' characteristics and 2017 KCPE means school yielded a high and positive correlation between the two variables (Table 4.4). This stamped the responses that the teachers' characteristics to a great extent influences pupils' academic performance.

## REFERENCES

- Aaronson, D., Barrow, L., & Sander, W. (N.D.). Teachers and Student Achievement in the Chicago Public High Schools. (2007). *Journal of Labor Economics*, 25(1), 95-135. Retrieved from <https://faculty.smu.edu/millimet/classes/eco7321/papers/aaronson%20et%20al.pdf>

- Adeyemo, D. A. (2001). Teachers' job satisfaction, job involvement, career and organizational commitments as correlates of student-academic performance. *Nigerian Journal of Applied Psychology*, 6 (2), 126–135. Retrieved from <https://www.researchgate.net/>
- Afe, J.O. (2001). Reflections on Becoming a Teacher and the Challenges of Teacher Education. *Inaugural Lecture Series 64*. Benin City: University of Benin, Nigeria
- Ajila, C., & Olutola, A. (2000). Impact of parents' socio-economic status on university pupils' academic performance, *Ife Journal of Educational Studies*, 7(1), 31-39.
- Akiri, A. A. & Nkechi, U. M. (2009). Teachers effectiveness and student's academic performance in republic secondary schools in Delta State', Nigeria, *Journal of stud HomComm, sci* 3(2):107-113. Retrieved from [www.krepublishers.com/.../HCS-03-2-107-09-094-Akiri-A-A-Ab.pdf](http://www.krepublishers.com/.../HCS-03-2-107-09-094-Akiri-A-A-Ab.pdf)
- Anderson, J. B. (2010). Factors affecting learning of Mexican primary school children. *Estudios Economicos*. 15(1), 117-152. Retrieved from <https://economics.mit.edu/files/11103>
- Angrist, J. D. & Lavy, V. (2011). Does teacher training affect pupil learning? Evidence From matched comparisons in Jerusalem public schools. *Journal of Labor Economics*. 19(2), 343-369. Retrieved from <https://economics.mit.edu/files/11103>
- Arif, G. M. & Saqib, N. (2013). Production of cognitive and life skills in public, Private, and NGO schools in Pakistan. *Pakistan Development Review*. 42(1):1-28. Retrieved from <https://www.jstor.org/stable/41260519>
- Chingos, M. M. & Peterson, P. E. (2011). It's easier to pick a good teacher than to train One: Familiar and new results on the correlates of teacher effectiveness. *Economics of Education Review*. 30, 449-465. Retrieved from <https://www.researchgate.net>
- DEO's Office (2014). *Igembe North District KCPE results*. School analysis Ministry of Education. Meru, Kenya: DEO's Office.
- Education Watch, (2006). Retrieved from <https://edtrust.org/resource/education-watch-state-reports-2006>

- Frenette, M, & Chan, P.C.W., (2015). *Academic Outcomes of Public and Private High School Pupils What Lies Behind the Differences?* Social Analysis and Modelling Division, Statistics. Canada
- Gbadegesin, M. A., Kemi, O. A. & Adu, E. O. (2017). A Comparative Analysis of Pupils' Performance in Economics in Private and Public Secondary Schools in Lagos State, Nigeria, *Journal of Social Sciences*, 44:2-3, 144-151, DOI: [10.1080/09718923.2015.11893473](https://doi.org/10.1080/09718923.2015.11893473)
- Gewirtz, A. H. (2007). *School based management and school effectiveness*. London: Longman. Retrieved from [www.tandfebooks.com/isbn/9781315824727](http://www.tandfebooks.com/isbn/9781315824727)
- Griffins, S. (2006). *The Knowledge Based Society*. Bucharest: Economic Publishing House. Retrieved from [www.sciencedirect.com](http://www.sciencedirect.com)/Goldhaber, D. D. &
- Hareesol, K. I., Mohd S. O. F., & Mohamad, K. H. O. (2016). The Mathematics Performance of Primary School Pupils' in Southern Thailand. *International Journal of Academic Research in Progressive Education and Development*. Vol. 5, No. 3 ISSN: 2226-6348
- Hula, S. (2003). *A comparative study of factors that influence performance at KCPE in public and private schools*, University of Nairobi, (Unpublished research report). Retrieved from [erepository.uonbi.ac.ke/handle/11295/18069](http://erepository.uonbi.ac.ke/handle/11295/18069)
- Ileri, E. (2007). *Factors influencing performance among primary and secondary Schools in Western Province of Kenya*. Unpublished research report Bureau of Educational Research: Kenyatta University Press. Retrieved from <https://eric.ed.gov/?id=ED242620>
- Kathuri, N. J. & Pals, D. A. (1993). *Introduction to Education Research*. Njoro: Egerton University press
- Koeh, O. (2009). *The Impacts of Head teachers' Instructional Leadership on student Academic Achievement in Kenya*. (Unpublished PhD Dissertation), Teachers College, Columbia University. Retrieved from <https://www.researchgate.net/>.
- Kombo, D. K. (2008). *Educational Society and Development*. New perspective from Kenya. Nairobi: Oxford University Press. Retrieved from [transconpublishers.org/](http://transconpublishers.org/)

- Lydia, L.M. & Nosongo, J.W. (2009). *Role of the Head Teacher in Academic Achievement in Secondary Schools in Vihiga District, Kenya*. Masinde Muliro University of Science and Technology: Kenya. Retrieved from [maxwellsci.com/print/crjss/\(3\)84-92.pdf](http://maxwellsci.com/print/crjss/(3)84-92.pdf)
- MoEST (2003). *Report of the Sector Review and Development*. Nairobi: Government Printer.
- Morrison, B. & Heidtke, L. (2011). *Causal Inference from Descriptions of Experimental and Non-Experimental Research: Public Understanding of Correlation-Versus-Causation*. doi: [abs/10.1080/00220670309598805](https://doi.org/10.1080/00220670309598805)
- Mugambi, M. (2003). *Performance in Kenya Certificate of Primary Examination (K.C.P.E). A case study of Central Imenti Division in Meru District*. Unpublished M.ED thesis Kenyatta University.
- Mugenda, O. M. & Mugenda, G.M. (2003). *Research Methods, Qualitative and Quantitative Approaches*. Nairobi: ACTS Press.
- Olatunde, Y. P. (2009). Relationship between Teachers' Attitudes and Pupils' Academic Achievement in Mathematics in Nigeria. *European Journal of Social Science*, 11(3), 364- 369. Retrieved from <https://www.researchgate.net/>
- Onyango, G. A. (2001). *Competencies Needed by Secondary School Head teachers and Implications on Pre-service Education*. (Unpublished PhD Thesis). Nairobi: Kenyatta University.
- Orodho J. A. (2003). *Factors that influence Girls performance in Science in KCSE in Kericho District, with an Implication on counseling*, University of Nairobi. (Unpublished Thesis Report). Nairobi, Kenya.
- Oyetunyi, C.O. (2006). *The Relationship between Leadership Style and School Climate. Botswana Secondary Schools*. University of South Africa Perspective Analysis of the Case of Hog Kong International Review of Education.
- Rong'uno, S.K., (2017). Comparison of Academic Performance between Public and Private Secondary Schools in Wareng District, Kenya. *British Journal of Education* 5(11)58-67, 58: ISSN 2054-6351 (print), ISSN 2054-636X (online)

- Silvia, P. I. (2006). Exploring the Psychology of Interest .Retrieved from <http://psycnet.apa.org/psycinfo/2006-03939-000>.
- Slater, E. et al (2009). *Do teachers matter? Measuring the variation in teacher effectiveness in England*. (Centre for Market and Public Organization (CMPO) Working Paper Series, number 09/212 Bristol: CMPO. Retrieved from [www.bristol.ac.uk/cmppo/publications/papers/2009/wp212.pdf](http://www.bristol.ac.uk/cmppo/publications/papers/2009/wp212.pdf)
- Wachiye (2006). *Who goes to school? Efficiency, Equity and Relevance in Secondary Schools Selection Election*. Nairobi, Kenya: Publican University of Nairobi. Retrieved from <https://www.povertyactionlab.org/>
- Wayne, J. &Youngs, P. (2003). Teacher characteristics and student gains: A review. *Review of Educational Research*. 73(1), 89-122. Retrieved from <https://www.jstor.org/stable/3516044>
- Yator, M. J (2003). *Factors that contribute to pupils' poor performance in KCSE Examination in Kabartonjo division, Baringo District*. Retrieved from [erepository.uonbi.ac.ke/](http://erepository.uonbi.ac.ke/)