A COMPARATIVE STUDY OF FACTORS THAT INFLUENCE ACADEMIC ACHIEVEMENT OF STUDENTS IN BOARDING AND DAY SECONDARY SCHOOLS OF KERICHO DISTRICT, KENYA.

CHERUIYOT LILLY CHEPKEMOI

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTERS OF EDUCATION (GUIDANCE AND COUNSELLING) OF KENYATTA UNIVERSITY.
DECLARATION:

This research report is my original work and has not been presented for a degree in any other university.

Signed: Ch. L. C. Date: 29/08/05

CHERUIYOT LILLY C.

This research report has been submitted for examination with my approval as a university supervisor.

Signed: E. M. KIGEN Date: 29/08/05

DR. E. M. KIGEN

Senior Lecturer

Department of Educational Psychology

Kenyatta University.
DEDICATION

This study is dedicated to my husband, Sam, and daughters Daisy and Caren.
ACKNOWLEDGEMENT

I wish to thank my supervisor, Dr. E.M. Kigen for his unwavering support, encouragement and advice that gave me academic insight and direction.

My sincere gratitude go to my husband and children Daisy and Caren for their encouragement and support, both emotional and physical, without which this work would not have been a success.

Special thanks go to my Principal Mrs. Judith Ombima for her support and to all my friends teaching in various schools in Kericho for their assistance in collection of questionnaires.

I am also indebted to my parents for all their support and encouragement.
ABSTRACT

Performance in national examinations in Kenya has been emphasized so much such that it has overshadowed the knowledge acquired.

Parents and pupils go to great heights to ensure good performance as this is viewed as the key to higher levels of education and subsequently prestigious careers.

Performance is a product of several factors both within and outside the school. Literature reviewed indicates that the home environment plays a major role in performance. This includes socio-economic status of the family, educational standards of the parents and the area of residence.

The factors within the school that affect performance include teacher characteristics, leadership style, use of teaching/learning resources, physical facilities and also student characteristics. The school program also comes into play.

This project work aimed at comparing the factors that affect academic achievement in both boarding and day schools of Kericho district. This is because quite often when the results of national examinations are released, the boarding are found to top the lists.

The main instrument used in data collection was questionnaires. Data collected has been analyzed using descriptive statistics and percentages. KCSE mean scores for the last three years for the schools that participated in the study compared.
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CHAPTER ONE: INTRODUCTION

1.0 Introduction

If there is anything in the education sector that generates a lot of interest and some times heat in Kenya, it is the examinations. This is not only amongst the parents and teachers but also the general public and the government. This is expected given that exams are not so much used to assess what skills the learners have gained but to determine the candidate’s next destination.

1.1 Background of the Study

The emphasis on performance in examinations has been made even greater by the nature of limited spaces at each higher level of education and in formal employment. Pupils must ensure that they obtain very high grades in order to compete favourably for the few spaces available at the higher levels of education. Parents on their part try to ensure that their children have all the chances of scoring high grades. One way of doing this is by taking them to boarding schools to reduce distracters and ensure high concentration in their studies.

The concept of boarding schools in Kenya started with the establishment of formal education. Most of the early schools established by missionaries were boarding schools. This was because most of the local communities were not receptive of the white man’s education system. The few children who had accepted to go to school had to be put in boarding schools to avoid disruption of their learning.
Most of the early boarding schools are the present national and provincial schools. Many other schools were later established to increase opportunities for education in the country.

As the demand for education in the country increased some communities established day secondary schools for their children who could not go to boarding schools for various reasons including religious grounds and types of meals offered. Example of this is the Hindus community which established schools such as Aga Khan, Oshwal and Arya schools.

As the population of children seeking secondary education increased many could not get vacancies in the established boarding schools. The government could not cope with the increasing demand. The same boarding schools had also become too expensive for some parents to afford such that some children were dropping out of school.

In order to alleviate the problem, the government encouraged Kenyans to pull their resources together and build new schools. This gave rise to harambee secondary schools, most of which were day schools. These schools were established along side primary schools that had been established earlier.

Day schools have proved to be popular especially with families of low financial status. This is because they charge relatively lower fees compared to boarding schools. Parents who cannot afford boarding school fees now take their children to day schools. The popularity of day schools is also increasing due to insecurity in boarding schools. Incidents such as those of Kyanguli high school where sixty seven boys lost their lives in a dormitory fire, Nyeri high school where four schools prefect were burnt to death by
fellow students, Bombolulu girls school where several girls died due to dormitory inferno and many others have all contributed to fears of insecurity in boarding schools.

It is not only parents who are finding it very difficult to pay fees for boarding school students, the government too is finding it difficult to maintain these schools. The housing and feeding expenses in boarding schools are as high as instructional costs and since the government subsidizes the extra cost of education, this shifts the basic welfare costs of children from families to the education national budget. The government’s expenditure per student tends to be much higher in boarding a schools than in day schools.

Savings in secondary schools could be achieved by among others converting boarding schools to day schools and passing the extra cost of equipment, physical facilities and boarding to teaching materials and personnel.

According to World Bank (1988) the transition from a system of boarding schools to one of day schools is an approach to reducing both the capital and recurrent costs of secondary education. Especially when implemented in conjunction with distance education, which reduces the need for large boarding complexes at any level a system of small day schools can significantly, reduce the unit cost of secondary education.

Despite the above expenses, boarding schools have some advantages. They promote national unity by bringing together children from different backgrounds. They also offer economics of scale in avoiding daily commuting costs associated with day schools.
Students in boarding are known to have more time for their studies since they are almost all the time under the supervision of their teachers and other staff members. This has resulted in the performance of boarding schools in national exams being much higher than that of day schools. This has been evident in Kenya Certificate of Secondary Education over the past years. For example, in the year 2002, all the top twenty provincial schools were boarding schools. Out of the top fifty schools, only two are day schools. In Kericho district, out of the top twenty schools in 2003 KCSE, only two are day schools.

It is against this background that this study intended to compare factors that influence academic performance of boarding and day secondary schools in Kericho district.

1.2 Statement of the Problem

As stated in the background above, boarding schools in Kenya have become very expensive to both parents and the government. These schools have increasingly become insecure. Despite all these, academic performance in these schools is much higher than that of day schools. On the other hand, day schools are affordable to many average families in Kenya but the performance here lags behind. Because of these parents struggle even to an extend of organizing funds raising to be able to take children to boarding schools. It was therefore necessary to find out why boarding schools perform better than day schools by comparing those factors that affect performance in the two types of schools.
1.3 Purpose of Study

Based on the problem stated above, the purpose of this study was to compare those factors that influence academic performance of boarding and day secondary schools in Kericho district.

Specifically, this study looks at:

1. Demographic data of teachers
2. Physical facilities
3. Teaching/learning resources
4. Duration of personal study time in school.
5. Leadership styles.
6. KCSE results for the last three years.

1.4 Research Questions

In order to investigate the above problem, the following questions have been generated.

1. How do demographic data of teachers in boarding and day schools compare?
2. What is the nature of physical facilities in boarding schools compared to that of day schools?
3. What teaching/learning resources are available in boarding and day schools?
4. What style of leadership is practiced by headteachers in boarding and day schools?
5. How much time is spent on private supervised study time in boarding schools and in day schools?

6. How has been the performance of the boarding schools compared to that of day school for the last three years in Kericho district?

1.5 Significance of the Study

The findings of this study are expected to shed some light as to why the performance of day secondary schools in Kericho district has lagged behind that of boarding schools. It may therefore be used by the Ministry of Education to know how to improve the performance of day schools. The same findings may also be used to advise parents to struggle to take children to boarding schools or take them to day schools if they cannot afford boarding schools without fear of poor performance.

1.6 Research Objectives

The following are the objectives of this study:

- To find out the qualification of teachers in boarding and day schools.
- To find out the teaching experience of teachers in boarding and day secondary schools.
- To find out the physical facilities available in the two types of schools.
- To find out the teaching resources available in the two types of schools.
- To find out styles of leadership in boarding and day schools.
- To find out the KCSE results of selected schools for the last three years.
1.7 Assumptions of the Study

This study had the following assumptions:

- All respondents were cooperative and provided reliable responses.
- All the pupils in the selected schools had gone through the same level of tuition in terms of teaching time and syllabus coverage.
- All the pupils in the selected schools have same academic ability.
- Teachers in all the selected schools are all qualified and experienced.
- Performance can be measured by means of examination scores.

1.8 Limitations and Delimitations of the study

On limitations, this study confines itself to only those factors within the school that may influence performance, factors outside the school are not considered.

The study also limits itself those schools in the district that are either purely boarding or purely day schools. The schools that have both day scholars and boarding students are not considered.

As indicated earlier on the main purpose of this study was to compare the factors that influence academic achievement of students in boarding and day schools.

Such factors include societal home environment, socio-cultural, socio-economic, peer influence, school type, school resources, teacher characteristics and pupil characteristics.

1.9 Definition of terms and Abbreviations

Teaching Resources: This is a general term used to refer to text books, charts, laboratory apparatus etc.
**Performance:** Used in this study to refer to the grades scored in Kenya Certificate of Secondary Education.

**Boarding school:** Refers to schools that have their students residing in the compound.

**Day Schools:** Schools where students commute from home everyday.

**Teacher Characteristics:** Used to refer to teachers qualification experience, commitment to work and instructional techniques frequently used.

**Student Characteristics:** Refers to the students by virtue of their attitudes, discipline, habits and educational culture.

**Teenage Role:** This is used to refer to teenagers fantasies such as music, fashion, dating, smoking and drinking.

**Pupil Role:** Refers to the work of a pupils in terms of attending lesson, doing assignments, studying etc.

**KCSE:** Kenya Certificate of Secondary Education

**KACE:** Kenya Advanced certificate of Education

**KCPE:** Kenya Certificate of Primary Education

**CPE:** Certificate of Primary Education
CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

As has been outlined in chapter one the performance of boarding and day secondary schools seem to show some marked difference. This is not only in Kericho district but the whole country.

In order to find out the causes of these differences, literature has been reviewed to investigate various factors that influence performance as reported by various authors and researchers.

2.1 Theoretical Background

Learning is any relatively permanent change in behaviour (or behaviour experience) produced by experience. Much of early work done on learning was done from behaviourist perspective and was concerned with formation of associations learning to link certain things together.

**Simple learning:**

**Habituation:** It is the simplest form of learning involves learning not to respond to particular stimulus. By learning to ignore innocuous stimulation, the animals energy can be conserved for another more important activity.

**Associative learning:** - This relates to the kind of learning that takes place when a stimulus becomes associated with another stimulus or with particular consequences.
LEARNING THEORIES

CLASSICAL CONDITIONING

The theory of classical conditioning aims to account for the way in which reflex behaviour may become associated with a new stimulus that does not naturally activate the behaviour. Put simply, an individual may learn to respond in a particular way to a given stimulus because of its association with something else.

Pavlov's classical conditioning

Pavlov found out in his experiments with dogs that the dogs salivated not only at the sight and smell of food, 'natural' response but also at the sight of food container alone. Through a series of experiments, he demonstrated that dogs could be conditioned to salivate to other unnatural stimuli, such as a buzzer being sounded, provided the stimulus was repeatedly presented at or slightly before the food. Such a pairing caused an association to be formed between the buzzer and the food and subsequently between the buzzer and the salivation response. A conditioned reflex had been formed.

Pavlov called the buzzer the conditioned stimulus (C.S) and the salvation that followed the buzzer the conditioned response (CR). This involved the formation of a connection between the conditioned stimulus and the conditioned response. This can be applied in human behavior. For example for every correct response in class, a reward may be given. This acts as a reinforcer. A reinforcer increase the chances of the responses
occuring again. Usually, students expect reinforcers for their efforts, whether or not their efforts have paid off.

Reinforces are therefore important in school learning and can definitely have great positive impact on performance (Hilgard 1975). If a reinforce is withheld, the response is weakened. This means that the probability of response occurring is decreased. We can expect correct student response which are not overtly reinforced to weaken or become extinct. This may be used by the teacher to weaken incorrect response to extinction by ignoring them.

Learning cannot occur efficiently without students obtaining feedback on the quality of his efforts. Reinforcers act as feedback. The importance of students receiving adequate feedback for his responses is not diminished by the uncertainly about how quickly the feedback should be provided. Students should hence be provided with feedback as soon as possible. Pavlov exhaustively observed and measured to external learning conditions necessary for learning – contiguity and practice (De Cecco, 1968). The almost simultaneous presentation of two stimuli provides contiguity. One stimulus and the other, the conditioned stimulus.

The second external learning condition s practice. The pairing of the unconditioned (the food) and the conditioned (the bell) stimulus must be repeated. The amount of practice necessary depends on how strong the response to the unconditioned stimulus is in any
case the response to the conditioned stimulus (salivation in response to the ringing of the bell) becomes stronger with the number of pairings of food and bell.

In contrast to internal learning conditions, which are students entering behaviour and external conditions enables the student to achieve the instructional objectives. De Cecco, continues to say that the teacher may analyze teaching materials in terms of unconditioned and conditioned stimuli.

Contribution of Pavlov's Theory To learning (Hilgard 1975)

1. Capacity:

The capacity to form conditioned reflexes is in part a matter of type of nervous system, hence there are some congenital differences in learning ability.

2. Practice:

In general, conditioned reflexes are strengthened with repetitions under reinforcement, but care always has to be taken to avoid the accumulation of inhibition which may appear even within repeated reinforcement.

3. Motivation:

In the usual alimentary reflexes in which salivation is reinforced by food, the animal has to be hungry, drive is particularly important in the case of instrumental responses. Because of the "signaling" functions of conditioned stimuli, it is presumed that some sort of drive reduction is usually involved. Mere contiguous stimulation does not appear to be the basis for learning.
4. **Understanding**

According to Pavlov, subjective terms such as “understanding” or “insight” are to be avoided. He says:

> “when a connection or an association is formed this undoubtedly represents the knowledge of matter, knowledge of definite relations existing in external world. It is utilization of knowledge, utilization of the acquired connections.”

5. **Transfer:**

Transfer is best considered to be the results of generalization (irradiation) whereby one stimulus serves to evoke the condition reflex learned to another. Particularly in the language system words substitute readily one for another and thus permit wide organization.

6. **Forgetting**

Pavlov did not deal systematically with the reaction or forgetting of condition reflexes over time. The same animals were used over and over again, their condition reflexes were used over time. The same animals were greatly over learned.
Thorndike’s Connectionism

The basis of learning accepted by Thorndike in his earlier writings was association between sense impression and impulses to action (response) such an association came to be known as “bond” or “connection”. Because it is these bonds or connections between sense impressions and responses which became strengthened or weakened in the making and breaking of habits , Thorndike’s system has been called a “bond” psychology or simply connection, it is original stimulus – response or S – R psychology of learning.

The most characteristic form of learning of both lower animals and man was identified by Thorndike as “trial- and – error” or learning by selecting and connecting. In this paradigmatic situation the learner is confronted by a problem situation in which he has to reach a goal, he does this by selecting appropriate response from a number of possible response.

In his bide to provide a mechanistic account of animal learning Thorndike performed an experiment in which a cat is placed in a confining box. Some sort of unlatching device would be mounted inside the box, when it was manipulated, the door would fall open permitting the animals to escape confinement and get a bite of food just outside the door. In Thorndike’s analysis, the interior of the problem- box continues the “stimulus situation” to which the animal would bring a repertoire of possible behaviors or responses it would try out in attempting to escape from the box. Typically, initial trials
would be characterized by much irrelevant and unsuccessful behaviour. The latch would be tripped almost accidentally opening the door. The performance score recorded was the amount of time elapsed before the animal performed correct response and escaped; initially responses were very high due to so much random and irrelevant behavior. However, on succeeding trials the time scores get lower but slowly and irregularity. 

This gradual learning is typically graphed as learning curve. For Thorndike, the important point areas that the gradual stamping in of rewarded responses and stamping out of unsuccessful ones was an automatic, mechanistic explanation for change in animals performance from the early to the later trials of training. No great intelligence was required to mediate such mechanistic learning. Thorndike’s experiments on animals had a profouned influence upon his thinking about human learning.

He was convinced that the great bulk of their learning could be explained by the direct binding of acts to situation through the automatic action of the law of effect, unmediated by ideas. He realized that the learning curves for humans display the same mechanical phenomena as that of animals.

The law of readiness:

The law of readiness is an accessory principle, which characterizes the circumstances under which a learner tends to be satisfied or annoyed, his low of readiness is paraphrased roughly as follows:

1. Given the arousal of a strong impulse to a particular action sequence the smooth
carrying out of that sequence is satisfying.

2. If that action sequence is thwarted or blocked from being completed that becomes annoying.

3. If a given action is fatigued, the forcing a further repetition of the act is annoying.

The performance of early components of the chain enhances the organism’s readiness for the next response in an action sequence. The third law refers to fatigue or satiation effects, if one is already stuffed with food, being forced to take another bite is positively aversive.

Thorndike was pointing to the fact that satisfaction and frustration (annoyance) depend upon the state of readiness (or preparation) the organism is in when a particular “response” occurs or is blocked. Thorndike’s readiness was a law of preparatory adjustment not a law about growth.

The law of Exercise:

This law refers to the strengthening of connections with practice (law of use) and to the weakening of connections or forgetting when practice is discontinued (the law of disuse). Strengthening is defined by the increase in probability that the response will be made when the situation recurs. This probability may be either a greater probability of occurrence if the situation is repeated immediately, or an equal probability persisting longer in time.
The kinds of phenomena falling under the law of exercise are chiefly those of repetitive habits as in memorizing or the acquiring of muscular skills. The belief was simply that “practice makes perfect”.

**The Law of Effect:**

The law of effect refers to strengthening or weakening of a connection as a result of its consequences. When a modifiable connection is made and is accompanied by or followed by a satisfying state of affairs, the strength of the connection is made and followed by an annoying state of affairs, its strength is decreased.

In addition to the three laws, Thorndike also came up with five principles of learning.

1. **Multiple Response**

   In order for a response to be rewarded, it must occur. When the learner faces a problem he tries one thing or another. When the appropriate behaviour is stumbled upon, success follows and learning is possible.

2. **Set or Attitude**

   Responses are determined in part by enduring adjustments characteristic of individuals raised in a given environment or culture. The attitude or set will not only determined what a person will do, but also what will satisfy or annoy him. The notion is that a person has his own internal standard regarding how well he should perform a given task and he judges and reinforces (or punishes) his own performance accordingly as it is above or below his standard in quality.
3. Prepotency of Elements

The learner is able to react selectively to proponent or salient element in the problem that is, a man can pick out the essential items and base his response upon it, neglecting other adventitious feature which might confuse a lower animal. This ability to deal with the relevant parts of insightful learning possible.

4. Response by Analogy

This involves assimilating, comparing a new situation to a previously learned one, and thus giving a response analogy.

5. Associative Shift:

The fundamental notion is that if a response can be kept intact through a series of changes in the stimulating situation, it may finally be given to a totally new stimulus. The stimulating situation is changed first by addition, then by subtraction until nothing from original situation remains.

Within the framework of his primary laws, Thorndike saw three considerations, which affected the teachers problem in using them in class. These are a) ease identification of the bounds to be formed or broken.

b) Ease of identification of the states of affairs which should satisfy or annoy

c) Ease of application of satisfaction and annoyance to the identified states of affairs.

The teacher and the learner must know the characteristics of a good performance in order that may be appropriately arranged. Errors must be diagnosed so that they will not be repeated. When there is lack of clarity about what is being taught or learnt,
practice may be strengthening the wrong connections in place of the right ones. At the same time, needed connections may be weakened by disuse.

Thorndike also refers to a number of motivational features not readily deducible from the laws of readiness and effect. The active role of the learner, who comes to the learning situation with needs interests and problems which determine what will be satisfying to him, is recognized implicitly by Thorndike. He lists five aids to improvement in learning as the interest series:

1. Interest in the work
2. Interest in improvement in performance
3. Significance of the lesson for some goal of the student
4. Problem – attitude in which the student is made aware of a need which will be satisfied by learning the lesson.
5. Attentiveness to work.

Thorndike further states that when a certain connecting has been followed by a satisfier, the individual concerned repeats the connection or something more or less equivalent to it. He thus strengthens the right connections himself by repetition.

The wrong connections he may simply dismiss.

So rewards (anticipated or delivered) surely act in human learning promoting differential exposure to be learned.

Thorndike’s position on typical problems of learning.
1. **Capacity**: learning capacity depends upon the number of bonds and their availability. The differences between bright and dull are quantitative rather than qualitative.

2. **Practice**: Repetition of situations does not in itself modify connections but leads to a negligible increase in strength unless the connections are rewarded. Practice is important because it permits rewards to act upon connections.

3. **Motivation**: reward acts directly on neighbouring connections strengthening them, punishment has no corresponding direct weakening effect; punishment may work indirectly, however through making the learner do something else which may confront him with a reward.

4. **Understanding**: the best way to get understanding is to build a body of connections appropriate to that understanding.

5. **Transfer**: the theory of identical elements is espoused. Reaction to new situations benefits by the identity of these new situations in part, with old situations and also by principle of assimilation.

6. **Forgetting**: The original law of disuse assumed forgetting to take place in the absence of practice.

**Skinner's Operant Condition**

Unlike in classical conditioning operant conditioning is concerned with voluntary rather than reflex behaviour. The theory is based on Thorndike's Law of effect which states
that behaviour resulting in pleasant consequences is likely to be repeated in the same circumstances, whereas that which has no such pleasant consequences dies away.

Thomdike showed that learning correct behaviour happens gradually through what he termed as trial and error learning.

Operant conditioning is similar to Thorndike’s trial and error learning. In operant skinner did a series of experiments with rats. He constructed a small box containing a lever, a food dispenser and (sometimes) a panel to display lighted stimuli. A rat placed in the box spontaneously explores its surroundings and eventually by accident presses the lever.

This activates the food dispenser and a pellet of food is presented to the rat. Subsequently each time the animal’s behaviour approximates to what is required food is presented. Food is the “reward” known as reinforcement which is presented only when the animal presses the lever. This procedure is known as behaviour shaping, the desired behaviour is shaped by rewarding a series of responses that are successive approximate more and more closely to the desirable behaviour.

The reward which increases the likelihood of the reinforcer. The process whereby the food is presented in response to the lever-pressing behaviour is known as positive reinforcement. Skinner also demonstrated that the kind of patterns or schedule of reinforcement given would differentially affect the kind of learning, which occurred. The two main schedule are:
Continuous reinforcement: where a reward is given to every instance of the desired behaviour. Partial reinforcement: where an animal is reinforced only some of the time.

The four partial reinforcement schedules that are most commonly used are fixed intervals.

Variable interval: reinforcement is given on average not precisely at the same time intervals. Fixed ratio: the animal is reinforced after a regular number of lever pressing responses.

Continuous reinforcement produces the quickest learning which lasts longer in the absence of reinforcement.

Skinner believed that behaviour is shaped by it’s consequences. One such consequence is positive reinforcement and punishment. Negative reinforcement refers to the removal or avoidance of something unpleasant. It results in desired behaviour being strengthened.

Punishment refers to the delivery of undesirable stimulus following a response it weakens the response and makes it less likely to recur. However, he argued that punishment is not suitable technique for controlling behaviour since it suppresses unwanted behaviour without strengthening desirable behaviour. It can, however, have
unintended emotional effects such as anger and frustration and in some circumstances it may actually become reinforcing.

Classical and operant conditioning arise from an animal making associations between stimuli or events, much of animal learning can be explained by reference to the two processes. It has however been found that there are more complex forms of learning which often involve some kind of cognitive activity (thinking, interpreting and understanding) rather than merely making simple associations. Three examples of cognitive learning in animals are formation of cognitive maps, insight learning and the phenomenon of learning sets.

Applications of conditioning theory include behavioural, therapies, biofeedback, techniques and programmed learning. Programmed learning is a method of instruction based on the principles of operant conditioning. It has been used in formal educational settings such as school, colleges and universities. It allows individual learners to work through organized learning material at their own pace to receive feedback on their achievements at regular intervals.

The theoretical base of programmed learning drew on the following principles of operant conditioning:

(i) A motivated learners actions which are followed by rewards (that is, are reinforced) are likely to be repeated and learned. The reward should follow as swiftly as possible after the response.
(ii) Actions which are not reinforced are likely to disappear (became extinguished.)

(iii) Behavioural patterns may therefore be shaped by the use of controlled stimuli i.e. learning can take place as a result of a series of small steps leading to a desired outcome.

Skinners remedy to the shortcoming of traditional teaching was the linear programme, the main characteristics of which are:

(i) Subject matter is arranged in very small steps, known as frames, which are presented to the learner in a logical sequence.

(ii) The learner is required to make a constructed response usually by writing a word or phrase in response to a question.

(iii) For each correct response, the learner is given reinforcement in form of immediate feedback on the accuracy of the response. In the case of an incorrect response the learner moves back to the item for another attempt before moving on.

A key principle of programmed learning is that individual learners work at their own pace by actively participating in the process.

Social Learning Theory

The concept of observational learning (or modeling) has been proposed to explain language acquisition during childhood and seemed appropriate also to learning of social behaviour, it explains how children learn new behaviour by imitating another person.
Bandura:
Observational learning has been extensively studied by Bandura who carried out experiments mainly using nursery school children as participants. He exposed children to either a real-life situation or to a film in which a model knocked down and beat a rubber 'Bobo' doll. The children were given the opportunity to reproduce the behaviour observed and their responses were compared to those of control group who had not seen the model, findings indicated that children who had watched the model behaved more aggressively than did the control group, often reproducing many of the specific acts of the model.

Bandura concluded that the children can learn through imitation quite spontaneously without any deliberate effort on the part of either the model or the learner. Studies showed that children are more likely to perform behaviour that is imitated from models who are:-

(i) Similar in some respects to themselves.
(ii) Exhibit power and control over some desirable commodity.
(iii) Are warm and nurturing, Bandura proposed that the ability to observe and the reproduce behaviour involves at least four mediating skills.

(i) Paying attention to appropriate and distinctive features of the behaviour whilst ignoring irrelevant and distracting aspects of the model
(ii) Retaining the critical features of the performance in memory
(iii) Accurate duplication of the models behaviour
(iv) Being motivated to produce behaviour observed. The key motivating factors are seen by Bandura as reinforcements in the form of internal external or vicarious rewards.

Identification is said to be the process through which a child adopts feelings, attitudes and behaviour of other people. It is similar to imitation in that it involves the child copying the behaviour of others, but where imitation involves copying very specific acts, identification is more concerned with copying general style of behaviour and becoming like other important people in our lives. The child may identify with whole social groups and according to the group identity involved.

**Needs Theory**

This is Maslow's hierarchy of needs. Maslow analysed human needs and classified them into two main categories; Basic or primary needs and secondary needs. Each of these categories is further subdivided as illustrated in the diagram below.
Physiological Needs.
These are survival needs and are paramount. They include hunger, thirst, sex, and health needs among others. These needs must be satisfied before any others in the hierarchy. Once they are satisfied, the next on the hierarchy will be satisfied.

Security Needs.
These are safety needs. These include clothing, housing and many others.

Affiliation Needs.
These are love needs. They include seeking for company, which is in friends, colleagues and relatives. It seeks to be accepted by others.

Esteem Needs.
These come from evaluation from other people or even from self. If one has a positive self-concept, the self-esteem is high. This means that one has a positive evaluation of self.

Self-Actualization.
This is maximizing our talents. Whenever lower needs are threatened, the upper needs do not matter any more. This is applied in schools, especially in boarding schools where students get their physiological needs satisfied. This is through provision of food, clean water, health services and other
basic needs. They are also assured of security needs such as hostels, clothes (uniform), secured compound and many others. The students can then settle down for their studies.

2.2. **Factors Influencing Performance in Examinations**

A child’s performance in examination is determined by how much the child has been able to learn. The level of learning is, in turn determined by the various situations in which children learn. All could be analyzed in terms of responses of children to various stimuli in their environment and also the way they perceive the environment. All these are also influenced by social situations and background of norms and values shared by the child, his teacher and also his fellow students (Hill 1965)

Hill therefore emphasized on the influence of classroom situations and the general environment of the child as determinants of performance.

Morrison (1973) gives two main factors that influence performance as:

(i) Home environment and

(ii) School environment

He found that differences in attainment among British children are much less closely related to their school than their home environments, however influence of school environment is not negligible.

However, Mizala A. (1998) notes that school and teacher related variables are also important. He says that education inputs were more important in developing than in developed countries.

Morrison continues to give the influential factors within the school environment as:
(i) Characteristics of teaching staff particularly length of their teaching experience and their teaching marks when students.

(ii) Background and aspirations of pupils.

(iii) Characteristics of fellow students

(iv) Quality of professional leadership by headteachers to their staff.

(v) Class size and school size.

Duigan (1986) states that, these are multifarious factors, which influence students’ achievements either directly or indirectly. Some of these factors are external to the school while others are part of the intricate web of influences that operate within the school itself. He identified the following factors as influencing performance:

(i) Leadership and decision making

(ii) School culture and climate

(iii) Teacher behaviour

(iv) Student behaviour

(v) Parental support and involvement

(vi) Socio-economic background of the Student.

Gewirtz, S. (1997- September) states that factors that determine performance in school are:

(i) Leadership and teaching

(ii) Social environment

(iii) Material environment and

(iv) Discourses of performativity and markets.
The later referring to where students are seen to perform well in national exams because the school is popular with parents and because of good inspection report.

In developing world, factors that influence students’ performance are found to be similar to those of developed world.

Mizala (1998), on determinants of student achievement and school effects in Bolivia, gives the factors that influence performance as family, particularly educational level and socio-economic characteristics and also teacher and school characteristics. He emphasizes availability of texts and provision of basic infrastructure as of high correlation with performance. Other positive relationships include more personalized and flexible teaching methods, initial teacher training, teacher experience, teacher presence in class, time dedicated to learning, homework, parents participation and curriculum coverage.

Locally in Kenya, factors that influence performance have been widely researched on by various researchers. Eshiwani ('983) categorizes these factors as

(i) School resources and processes. These includes class size, text books, school administration and management, library and laboratory facilities.

(ii) Teacher characteristics- his/her certificate (qualification), experiences, teacher-pupil ratios, professional commitment and transfer index.

(iii) Student traits: Which include pre-school education, primary school education and social factors.
Orodho (1996) seems to agree totally with Eshiwani’s factors but classifies them into the following categories:

(i) School factors
(ii) Out-of-school factors
(iii) Students characteristics
(iv) Teacher characteristics

He continues to say that research carried out in Western countries particularly US and Britain concludes that a society’s cultural, economic and political structures are the main determinants of school outcomes.

In this particular study, the school environment is to be studied. The following factors are to be investigated:

(i) Teaching resources
(ii) Teacher Characteristics
(iii) School administration and leadership style
(iv) Student characteristic
(v) School programme

2.2.1 Teaching Resources

These are items that are used either as source of information for teachers and students or used to enhance learning. Mizala (1998) says that there is a positive relationship between performance and availability of didactic materials. Access to didactic materials like globes, maps etc have positive effect on performance.
Orodho (1996) says that there is a strong association between resources and students’ achievements. Textbooks availability has been shown to be consistently related to achievement in less industrialized countries. Access to reading materials is positively related to students’ achievement. This is regardless of socio-economic status of the students’ parents.

The use of various resources in teaching-learning process has also been found to increase curiosity and motivation of students. These increase the level of learning.

According to Huha (2003), different human senses account for varying percentages of learning. It is estimated that taste accounts for 1%, touch 1 ½%, smell 3 ½%, hearing 11% and sight 83%. It is therefore important to ensure that all these senses are used in the learning process.

2.2.2 Teacher Characteristics

Orodho says that teacher characteristics include professional qualifications, years of teaching experience and the instruction techniques frequently used. According to Mizala (1998), characteristics of teachers given are knowledge of respective subjects, experience in use of didactic materials and students-teacher relationship.

Absenteeism of teachers is associated with poor performance and on the contrary, the more the teaching time, the more positive the students’ performance.

Huha (2003) suggests that a teacher must possess theoretical knowledge about human learning behaviour and must demonstrate a repertoire of teaching skills that are believed to facilitate students’ learning.
He must display attitudes that foster learning and genuine human relationships. He must possess knowledge of subject matter.

Ominde (1964) as quoted by Wachiye (1996) states that:

“It is the teacher who makes the school performance is caused by the teachers because it is the teacher who matters most in a child’s life in school”

2.2.3 Student characteristics

According to IIuha (2003), pupils by virtue of their attitudes, hard work, discipline, habits and educational culture greatly influence performance. Lack of role model, motivation or ambition also affects performance. Peer pressure is another major factor that influence a student's conduct and hence performance. This is supported by Banks, (1976) who states that:

“A student is strongly influenced in his college plans by the plans of his best friends. Cliques which actively reject goals and norms of the school system lead to rebellion.”

He also found that differences in socio-economic composition of study body were more highly related to school achievement than any other characteristics.

Morrison found a negative correlation, between commitment to ‘teenage role’ such as pop music, teenage fashions, coffee bars, dating and smoking and commitment to ‘pupil role’ signified by desire to be a good scholar. Teenage role commitment was negatively correlated at a highly significant level with achievement and also with attitudes to school with orientation towards the future and with teachers' ratings of general conduct. The
same teenage commitment was found to be negatively correlated with intellectual quality
of home backgrounds. In so far as pupils are free to choose their own associates, they
can therefore find group’s support for high educational aspirations and attainment or a
group for refusal to accept the demands for teachers.

2.2.4 School Administration and Leadership Style

School principal is the most important and influential individual in school (Yator, 2003),
His or her managerial skills get the benchmark, the direction, the tone and the tempo of
the school. Yator continues to say that apart from setting the climate for learning and
level of professionalism, his/her managerial skills are pivotal for morale of teachers and
set the degree of concern for what students may or may not become.

Ireri, J. M (2001) says that success or failure of an organization depends on many factors
among them. Leadership styles of the head, Griffins (1996) says that performance
depends on a happy atmosphere, the skills and devotion of teachers. A happy
atmosphere cannot be achieved without appreciation of leadership style.

Gewirtz (1997 – September) says that an assumption by current government on the UK
education is that
“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.”

Mortimore (1997) says that an effective school has leadership stance which builds on
and develops a team approach a vision of success which includes a view of how the
school can improve, school policies and practices which encourage planning and setting
of targets and the improvement of physical environment, common expectations about pupil behaviour and success and an investment in good relationship with parents and community.

According to Kombo (1998),

"The basic reason why some schools perform better than others in examination was that while some head teachers organized learning process for their students, others leave it to chance"

2.2.5 Teacher/Pupils Ratio

This influences interaction between the teacher and each pupil. When the ratio is low, individual attention results therefore increased interaction.

Kibui (1995) says that when the ratio is low, the teacher is able to cater for individual differences of the pupils in terms of ability and motivation.

Teachers working in a situation where teacher/pupil ratio is high would be expected to be overworked and lack time to prepare.

Koech in his commission of education 1999 recommends teacher/pupils ratio to be 40:1 and there be a minimum of one teacher per class plus a head teacher. He further recommends that when there are fewer pupils in class, multi-grade teaching should be applied but in cases where these were more than forty pupils in a class, shift teaching to be applied.
2.2.6 School Programme

Morrison states that education organization determines who meets who it restricts or encourages social interaction. It also determines who is exposed to what. It affects the degree of exposure to different values, access to varied and extended courses and opportunities for social experiences.

Acholla (1990) emphasizes mainly on provision of homework, extra tuition during holidays, weekends and night preps. He reports positive correlation between hours spent on homework and performance.

Muluku, K. (2003) states that academic work outside normal class work is very important aspect for high academic achievement to be realized. Homework is supplementary work done after official school time for example night prep in boarding schools or at home for day schools. The purpose is to reinforce what has been learned. It is feedback for the teacher and student. Teacher is able to identify weak areas and plan future strategies. When properly supervised, homework raise achievement.

School programmes show a remarked difference between boarding and day schools. Boarding schools have got supervised prep time early in the mornings, evenings and weekends. Day schools on the other hand have got short preps in the mornings and evening only, most do not attend school during weekends.

Hunter (1963) as quoted by Barasa 2003 states that inspite of the characteristics and hardship of much of East African boarding school life, enormous gap has opened up between the good facilities of boarding schools and poor living conditions of day school students outside the accommodation.
All boarders were assured of a bed, three meals a day and facilities for study. It is possible for day students to suffer from lack of these essentials. Chores assigned to day students become downright exploitation. They wake up very early, fetch water, make fire, dig then try to get some food before walking several kilometers to school. After school, the same process begins again. After which struggle over his/her books using a paraffin lamp or candle, which may irritate others in the same room. Some do not get lunch. Parents do not realize that one meal a day is not sufficient for young people.

Commenting on boarding and day schools performance, Oro~ho says:

"Boarding at school is found to raise pupils motivation and achievement. Is it perhaps the social environment, which is counter-productive for day school students? Are students perhaps spending too much of their valuable time loitering in streets or is it that parents are too pre-occupied with problems of economic survival that they hardly find time to think about their children’s academic progress?"

After reviewing the above factors that influence performance, this study then proceeded out to the field to compare the effect of the same in boarding and day schools in Kericho district
CHAPTER THREE: METHODOLOGY

3.0 Introduction

As has been stated in chapter two, this research was aimed at comparing factors that influence academic achievement of students in boarding and day secondary schools in Kericho district. This chapter therefore describes methodology used. It is divided into sections. The first section describes design of study, the second describes target population and sampling method, the third, type of data to be collected, fourth instruments and their administration and fifth, data analysis.

3.1 Design Study

This study is a comparative survey of factors that influence academic achievement in boarding and day schools. Investigations were carried out into various factors within the school. Analyzed results of KCSE for the two types of schools have been compared.

3.2 Target Population

This study was based in Kericho district. This district was chosen because of its complexity. It has three types of community set up. There is the urban area, municipality and the extensive tea estates. The third set up is the remote villages away from town. These are the common set ups that can be found in any part of Kenya.

The district has got 57 secondary schools. These schools are distributed over seven divisions. Out of the 57 schools, 18 are boarding, 19 are day and 20 have both boarding students and day scholars.
The target population therefore in this study was all the 18 boarding schools and the 19 days schools. All the teachers and head teachers in these schools were part of the target population. However, due to the large size of the population, it was not be possible to study the whole population. Stratified Random Sampling was used to draw a representative sample for study.

3.3 Sample and Sampling Technique

The divisions formed the strata. Two schools were selected from each division except Ainamoi, which has a high number of schools. Four schools were randomly picked from this division. This gives a total of 16 schools, 8 boarding and 8 day schools.

On average, each school has 15 teachers. 1% of these was selected for study. This gave 7 teachers from each school. This number includes the head teacher. This gave a total of 96 teachers. This is 10% of approximately 860 teachers in the district.

3.4 Instruments

Questionnaires were the main instrument used in data collection. This is because it is the most appropriate for such a large number of subjects. There were two sets of questionnaires, one for teachers and another one for head teachers. The teachers’ questionnaire had two parts: Part 1 for demographic data and part 2 for availability and the use of teaching learning resources.

The head teacher’s questionnaire had four parts:

Part 1: demographic data
Pilot testing of the questionnaires was carried out in a school that was not included in the study. This is to make any necessary corrections and refine the instruments.

3.5 Data Analysis

The data collected was divided into two categories, boarding and day schools. It was then tabulated for systematic recording. It was analyzed using descriptive statistics, and percentages. Leader-member relations were analyzed using Likert Scales.
CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATIONS

4.0 Introduction

This chapter analyses and presents the findings of the study based on data collected. It also analyses questionnaire return rate. The chapter specifically presents analysis and discussions on various factors that affect academic achievement in boarding and in day schools in Kericho district. This is therefore a comparative study of the various factors. It also aims at answering research questions presented in chapter one.

4.1 Questionnaire Return - Rate

The total number of teachers sampled for study was 96 while that of head teachers was 16. By the completion of administration and collection of questionnaires, all 96 teachers questionnaires and 14 of headteachers had been returned, fully and correctly filled. The return rate was thus 100 percent and 87.5 percent respectively. This rate was deemed adequate for the purpose of this study.

4.2 Demographic Data

One of the research questions was “how does demographic data of teachers in boarding schools and day schools compare?”

The following responses were obtained.
Table 1: Gender Distribution

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th>Percentage (%)</th>
<th>Day</th>
<th></th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>26</td>
<td></td>
<td>51</td>
<td>23</td>
<td></td>
<td>48</td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td></td>
<td>49</td>
<td>25</td>
<td></td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td></td>
<td>100</td>
<td>48</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

From the above results, the percentage of male teachers in boarding schools (51%) is higher than that of the same in day schools, 48%. The percentage of female teachers in boarding schools is slightly less (49%) than their counterparts in day schools (52%).

Teaching Experience

The table below presents the observed responses concerning teaching experience of the teachers involved in the study.

Table 2: Teaching experience

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th>Percentage (%)</th>
<th>Day</th>
<th></th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 5 yrs</td>
<td>14</td>
<td></td>
<td>29.0</td>
<td>18</td>
<td></td>
<td>38.5</td>
</tr>
<tr>
<td>6 – 10 yrs</td>
<td>14</td>
<td></td>
<td>29.0</td>
<td>12</td>
<td></td>
<td>25.0</td>
</tr>
<tr>
<td>11 – 15 yrs</td>
<td>12</td>
<td></td>
<td>25.0</td>
<td>9</td>
<td></td>
<td>19.0</td>
</tr>
<tr>
<td>Over 15 yrs</td>
<td>8</td>
<td></td>
<td>17.0</td>
<td>9</td>
<td></td>
<td>19.0</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td></td>
<td>100</td>
<td>48</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

The table above indicates that 29 percent of teachers in boarding schools have a teaching experience of 0 – 5 yrs, another 29 percent have an experience of 6 – 10 yrs. 25 percent
have experience of 11 – 15 yrs while the smallest proportion of 17 percent have experience of over 15 years.

Compared to those in day schools, a higher percentage of 38.5 percent are with experience of 0 – 5 years. Those with experience of 6 – 10 years, the percentage in day school is less 25.0 percent than those in boarding school 19.0 percent have an experience of 11 – 15 years, this being less than those in boarding school. Teachers with an experience of over 15 years are more in day schools 19.0 percent than those in boarding schools. The major difference here is in the 0 – 5 years experience where percentage in day school is higher and also in the category of 11 – 15 years where percentage of boarding school is higher.

Academic Qualification

The table below gives the frequencies obtained for various responses. These frequencies have also been converted into degrees to give proportions on proportional circles (pie charts).
Table 3: Academic qualifications

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Degrees</td>
<td>Frequency</td>
<td>Degrees</td>
<td>Frequency</td>
<td>Degrees</td>
<td></td>
</tr>
<tr>
<td>KCSE</td>
<td>2</td>
<td>15°</td>
<td>3</td>
<td>22.5°</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelors degree</td>
<td>8</td>
<td>60°</td>
<td>14</td>
<td>105°</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masters Degree</td>
<td>33</td>
<td>247.5°</td>
<td>31</td>
<td>232.5°</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>37.5°</td>
<td>0</td>
<td>0</td>
<td>48</td>
<td>360°</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 1 Academic Qualifications

Boarding Schools

Day schools
Looking at the above proportions, it is observed that teachers with KCSE qualification are more in day school than in boarding schools. Those with KACE are also more in day schools. Teachers with bachelors’ degree are the majority in both types of schools but are more in boarding than in day schools. The highest qualification of Masters degree seems to be found only in boarding schools. It may then be concluded that teachers in boarding schools are generally of higher academic qualification than those in day schools.

**Professional Qualifications**

The observations obtained on professional qualifications are summarized in the table 4 below. The frequencies have also been converted to degrees so as to be presented using proportional circles.

**Table 4. Professional Qualifications**

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding Frequency</th>
<th>Boarding Degrees</th>
<th>Day Frequency</th>
<th>Day Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non - Professional</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>22.5°</td>
</tr>
<tr>
<td>Secondary teacher</td>
<td>2</td>
<td>15°</td>
<td>10</td>
<td>75.0°</td>
</tr>
<tr>
<td>GAT</td>
<td>15</td>
<td>112.5°</td>
<td>9</td>
<td>67.5°</td>
</tr>
<tr>
<td>Graduate</td>
<td>26</td>
<td>195°</td>
<td>26</td>
<td>195°</td>
</tr>
<tr>
<td>Masters Degree</td>
<td>5</td>
<td>37.5°</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>48</td>
<td>360°</td>
<td>48</td>
<td>360°</td>
</tr>
</tbody>
</table>
The above observations indicate that there are some non-professional teachers who are working in day schools, they are however not found in boarding schools. Teachers with S1 qualifications are found in the two types of schools but are more in day schools.

An equal proportion of graduate teachers are found in the two types of schools. There is however a difference in the category of teachers with masters degree. None was found in day schools but a small proportion was found in boarding schools.
4.3 Teaching / Learning Resources.

This work sought to find out availability of various teaching learning resources in the schools that were involved in the study.

Text Books

Teachers were asked to indicate whether their students use textbooks. The responses are presented in table 5 below.

Table 5: Availability of Textbooks

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding Frequency</th>
<th>Percentage (%)</th>
<th>Day Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>48</td>
<td>100</td>
<td>46</td>
<td>95.8</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td><strong>48</strong></td>
<td><strong>100</strong></td>
<td><strong>48</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The above observations show that all boarding schools 100 percent use text books while 95.8 percent of day schools have text books. There is a small percentage of day schools 4.2 percent that are without textbooks.

Adequacy of Text Books

To obtain information on the extend to which issue of textbooks is adequate; teachers were required to indicate this per class. The frequencies on each extend of adequacy have been averaged to give the means from which percentages have been obtained. This information is presented in the table below.
Table 6. Adequacy of Textbooks

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th>Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Percentage (%)</td>
<td>Average</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td></td>
<td>Frequency</td>
<td></td>
</tr>
<tr>
<td>Inadequate</td>
<td>13</td>
<td>27</td>
<td>18</td>
<td>39</td>
</tr>
<tr>
<td>Adequate</td>
<td>31</td>
<td>64.7</td>
<td>28</td>
<td>61</td>
</tr>
<tr>
<td>More than adequate</td>
<td>4</td>
<td>8.3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td>46</td>
<td>100</td>
</tr>
</tbody>
</table>

Looking at the table above, most of the schools have adequate amount of textbooks. There is however a higher percentage (39%) of day schools who have inadequate amount of textbooks than the percentage of boarding schools (27%) in that category. Same boarding schools, 8.3 percent, have more than adequate while there are non among day schools in that category.

Library

Concerning presence of a library in the school, the following results were obtained

Table 7. Presence of a Library

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th>Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage (%)</td>
<td></td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>Yes</td>
<td>42</td>
<td>87.5</td>
<td>26</td>
<td>54.2</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>12.5</td>
<td>22</td>
<td>45.8</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>
This data shows that a very high percentage, 87.5 percent of boarding schools have a library each while only 54.2 percent of day schools have. The schools without a library shows a higher percentage, 45.8 percent in the day schools than the boarding schools with only 12.5 percent.

This study went ahead to find out how equipped these libraries are. The table below shows the response to this investigation.

**Table 8. How Equipped are the Libraries?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th>Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage (%)</td>
<td>Frequency</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>Fully equipped</td>
<td>2</td>
<td>4.8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fairly equipped</td>
<td>32</td>
<td>76.2</td>
<td>23</td>
<td>88.4</td>
</tr>
<tr>
<td>Poorly equipped</td>
<td>8</td>
<td>19.0</td>
<td>3</td>
<td>11.6</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td><strong>100.0</strong></td>
<td>26</td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Of all the day schools that have libraries, only 4.8 percent are fully equipped while in day schools, there is no library that is fully equipped. The data shows that most schools with libraries have fairly equipped ones. These are 76.2 percent and 88.4 percent of boarding and day schools respectively. Some schools however, have libraries that are poorly equipped. These are 19 percent and 11.6 percent of boarding and day schools respectively.
Science laboratories

Asking whether there is a science laboratory in their schools, the teachers gave the following responses.

Table 9. Availability of Science Laboratory

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th>Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td></td>
<td>Percentage (%)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>48</td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td></td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

The table 9 above shows that of all the schools involved in the study, 100 percent of the boarding schools and 95.8 percent of the day schools have science laboratories. There is however a small percentage, 4.2 percent of day schools that are operating without a science laboratory.

The schools were also required to indicate how equipped their laboratories are. The following responses were obtained.
Table 10. How equipped are the Science Laboratories?

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding Frequency</th>
<th>Percentage (%)</th>
<th>Day Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully equipped</td>
<td>10</td>
<td>20.8</td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td>Fairly equipped</td>
<td>38</td>
<td>79.2</td>
<td>39</td>
<td>84.8</td>
</tr>
<tr>
<td>Poorly equipped</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>10.9</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td>46</td>
<td>100</td>
</tr>
</tbody>
</table>

From table 10 above, it is observed that most laboratories are fairly equipped. This makes up 79.2 percent and 84.8 percent of boarding and day schools respectively. Of all the boarding schools, 20.8 percent are fully equipped while only 4.8 percent of the day schools’ labs are fully equipped. The boarding schools do not have any lab that is poorly equipped while 10.9 percent in day schools are poorly equipped.

**Use of Teaching / Learning Resources.**

The use of teaching /learning resources in school has a lot of influence on the performance. This study therefore sought to find out how often teachers use these resources in their teaching. The responses obtained are presented in the table 11 below.
Table 11: How often do you use Teaching / Learning Resources?

<table>
<thead>
<tr>
<th>Responses</th>
<th>Boarding Frequency</th>
<th>Percentage (%)</th>
<th>Day Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>34</td>
<td>70.8</td>
<td>25</td>
<td>52.1</td>
</tr>
<tr>
<td>Rarely</td>
<td>14</td>
<td>29.2</td>
<td>21</td>
<td>43.8</td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

The above results show that 70.8 percent of teachers in boarding and 52.1 in day schools always use teaching learning resources. This implies that there is more use of teaching learning resources in boarding schools than in day schools. Some teachers 4.1 percent in day schools never use these resources at all.

Other physical facilities commonly found in the schools are dining halls, multipurpose halls, home science rooms, bookstores and play fields. Home science rooms are notably absent in day schools together with multipurpose halls.

4.4 Student Characteristics

Discipline

When teachers were asked to rate the level of discipline in their schools, the following data were obtained.
Table 12: How would you rate the Level of Discipline Among your Students?

<table>
<thead>
<tr>
<th>Responses</th>
<th>Boarding</th>
<th></th>
<th></th>
<th>Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage (%)</td>
<td>Frequency</td>
<td>Percentage (%)</td>
<td></td>
</tr>
<tr>
<td>Very disciplined</td>
<td>3</td>
<td>6.25</td>
<td>1</td>
<td>2.08</td>
<td></td>
</tr>
<tr>
<td>Disciplined</td>
<td>45</td>
<td>93.75</td>
<td>41</td>
<td>85.4</td>
<td></td>
</tr>
<tr>
<td>Undisciplined</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>Very undisciplined</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td>48</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

This data indicates that 6.25 percent of teachers in boarding and 2.08 percent in day schools rate their students as very disciplined. Most teachers however, rate their students as disciplined. These are 93.7 percent and 85.4 percent in boarding and day schools respectively. The percentage of boarding school is higher.

There is no teacher in boarding who rates his/her students as undisciplined or very undisciplined but 12.5 percent in day school rate their students as undisciplined. Again there are no extreme cases of very undisciplined in day schools.

Attitude

This study also sought to find out the attitude of students towards academic work, attitude being a component of student characteristics. The following observations were obtained.
Table 13. Students’ Attitude towards Academic Work

<table>
<thead>
<tr>
<th>Responses</th>
<th>Boarding</th>
<th></th>
<th>Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage (%)</td>
<td>Frequency</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>Very negative</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Positive</td>
<td>44</td>
<td>92</td>
<td>32</td>
<td>67</td>
</tr>
<tr>
<td>Negative</td>
<td>4</td>
<td>8</td>
<td>15</td>
<td>31</td>
</tr>
<tr>
<td>Very positive</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 13 above shows that very few teachers rate their students as having a very negative attitude towards academic works. This is only 2 percent of the teachers in day schools. Majority of teachers, 92 percent in boarding and 67 percent in day schools, rate their students’ attitude towards academic work as positive. These percentages show that of boarding to be much higher than that of day schools.

Among the teachers who rate their students attitude as negative, 8 percent are in boarding schools and 31 percent are in day schools. Here the percentage of day schools is higher.

These figures shows that the attitude of students towards academic work is more in the negative among day school students while it is more positive among boarding school students. It is also worth noting that no teacher that participated in this study rates his/her students as having a very positive attitude towards academic work.
Academic Ability

To obtain information on students' academic ability, the teachers were asked to rate them using the provided responses. Table 14 below gives the results obtained.

Table 14: How would you Rate your Students Academic Ability.

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding Frequency</th>
<th>Percentage (%)</th>
<th>Day Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very strong</td>
<td>2</td>
<td>4.2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Strong</td>
<td>40</td>
<td>88.3</td>
<td>14</td>
<td>29</td>
</tr>
<tr>
<td>Weak</td>
<td>6</td>
<td>12.5</td>
<td>33</td>
<td>69</td>
</tr>
<tr>
<td>Very weak</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

From these responses, it is observed that a very small percentage, 4.2 percent of teachers in boarding schools rate their students academic ability as very strong while none in day schools rate their students' the same.

83.3 percent of teachers in boarding schools think their students are strong academically while only 29 percent of those in day schools think the same about their students.

The highest percentage, 69 percent of teachers in day schools rate their students as being weak academically while only 12.5 percent of those in boarding school think the same about their students.

Most students in boarding schools are therefore either strong or very strong academically while majority of those in day schools are either weak or very weak.
4.5 Teacher Characteristics.

Extra work done by students outside the normal time tabled lessons is very important. This is work given to students as homework or assignment. This study therefore wanted to obtain information on how frequently students are given this work and how often this work is marked.

**Table 15: How often do you give your Students Homework?**

<table>
<thead>
<tr>
<th>Responses</th>
<th>Boarding</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Day</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>16</td>
<td>33.3</td>
<td></td>
<td>14</td>
<td>29.2</td>
<td></td>
</tr>
<tr>
<td>2-3 times a week</td>
<td>26</td>
<td>54.2</td>
<td></td>
<td>22</td>
<td>45.8</td>
<td></td>
</tr>
<tr>
<td>Once in two weeks</td>
<td>4</td>
<td>8.3</td>
<td></td>
<td>6</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td>2</td>
<td>4.2</td>
<td></td>
<td>4</td>
<td>8.3</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
<td>0</td>
<td></td>
<td>2</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td></td>
<td>48</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

The above responses indicate that most teachers give their students' homework daily or 2 – 3 times a week. In these two responses, teachers in boarding schools have higher percentages 33.3 percent and 54.2 percent for daily and 2 – 3 times a week respectively than the teachers in day schools who are 29.2 percent and 45.8 percent respectively.

Those who give homework once a week are more in day schools 12.5 percent against 8.3 percent in boarding schools. Those who give homework monthly are also more in day schools with 8.3 percent while those in boarding school are 4.2 percent. There are
however those who do not give homework at all. They are only found in day schools making 4.2 percent. All teachers in boarding schools are found to give homework.

The above observations are also presented on combined bar graphs as in the figure below. This figure shows that the first two responses i.e. daily and 2-3 times a week are the highest with moiré frequencies. Among these bars also, the boarding schools have the highest bars than the day schools. The rest of the response, shew day schools having more frequencies than boarding schools. The “never” option has respondents only from day school.
Homework given to students will be more effective if it is marked. To obtain information of how teachers make students homework, they were asked to indicate from the given responses the one, which suits them most. The following observations were obtained.
### Table 16: How Frequently do you Mark your Students Homework?

<table>
<thead>
<tr>
<th>Responses</th>
<th>Boarding</th>
<th></th>
<th>Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage%</td>
<td>Frequency</td>
<td>Percentage%</td>
</tr>
<tr>
<td>Daily</td>
<td>8</td>
<td>16.7</td>
<td>9</td>
<td>19.6</td>
</tr>
<tr>
<td>2-3 times a week</td>
<td>22</td>
<td>45.8</td>
<td>21</td>
<td>45.7</td>
</tr>
<tr>
<td>Once a week</td>
<td>12</td>
<td>25</td>
<td>2</td>
<td>4.2</td>
</tr>
<tr>
<td>Once in two week</td>
<td>5</td>
<td>10.42</td>
<td>7</td>
<td>15.2</td>
</tr>
<tr>
<td>Monthly</td>
<td>1</td>
<td>2.1</td>
<td>5</td>
<td>10.9</td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
<td><strong>100</strong></td>
<td><strong>46</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The above observations indicate that most teachers mark students work either daily or 2-3 times a week. The percentages in both categories are almost equal. However, a higher percentage of teachers, 25 percent in boarding schools mark students work once a week than the percentage of teachers, 4.3 percent in day schools.

Those who mark students work once in two weeks, monthly and those who never are more in day schools than in boarding schools. The above data is also presented in figure 4 below. From this figure, it is observed that most teachers mark students work either daily or 2-3 times a week. The frequency of teachers in day schools who mark the work daily is slightly more than that of their colleagues in boarding school. Those who mark the work once a week are however more in boarding schools than in day schools.
More teachers in day schools mark work monthly than those in boarding schools.
However those who never mark work at all are only found in day schools.

Fig. 4. How frequently do you mark your students homework?

4.6 Leadership
This part of the study analyses the data obtained on academic and professional qualifications of head teachers. It also analyses the relationship between the head teachers with their subordinates.
Academic qualifications.

The head teachers who participated in this study indicated their academic qualifications as presented in the table below.

**Table 17. Academic Qualification of Head teachers.**

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th>Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage %</td>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>KCSE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>KACE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bachelors Degree</td>
<td>4</td>
<td>57</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Masters Degree</td>
<td>3</td>
<td>43</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

Looking at the table above most of the head teachers are holders of bachelors degree. Majority of these head teachers with bachelors degree are in day schools, 71 percent while a lower percentage 57 percent are in boarding school.

The percentage of head teachers with master degree are more in boarding schools that day schools as observed in the table.

**Professional qualification**

Inquiry into professional qualification of head teachers yielded the data presented in the table below.
Table 18. Professional Qualification of Head teachers.

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th></th>
<th></th>
<th>Day</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage%</td>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percentage%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-professional</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary teachers I</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>1</td>
<td>14.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Approved T</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>5</td>
<td>71.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Teacher</td>
<td>7</td>
<td>100</td>
<td></td>
<td></td>
<td>1</td>
<td>14.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior Graduate</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>7</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All the head teachers, 100 percent, involved in the study from boarding schools are graduate teachers while 71.4 percent of head teachers in day schools are of the same qualification. 14.3 percent of head teachers in day schools are graduate approved and another 14.3 percent are senior graduate teachers. These two categories are however not found in boarding schools. These results show that all the head teachers are fully qualified.

Teaching Experience

Head teachers indicated their teaching experience as presented below in table 19

Table 19: Headteachers’ Teaching Experience

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th></th>
<th></th>
<th>Day</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage%</td>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percentage%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 – 5 yrs</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 – 10 yrs</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>1</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 – 15 yrs</td>
<td>4</td>
<td>57</td>
<td></td>
<td></td>
<td>3</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above 15 yrs</td>
<td>3</td>
<td>43</td>
<td></td>
<td></td>
<td>3</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7</td>
<td><strong>100</strong></td>
<td></td>
<td></td>
<td>7</td>
<td><strong>43</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
These results show that all the head teachers in boarding schools have a teaching experience of over 11 years while in day schools, 14 percent of head teachers have a teaching experience of 6 – 10 years. The two categories of schools however, have the same percentage, 43 percent of teachers with an experience of more than 15 years. Most head teachers are therefore well-experienced teachers with over 11 years of service.

Training in Administration

Training is said to be very essential in performance of any duties of a professional person. This study sought to find out whether the head teachers in the schools that participated in this study have received any training in administration. The following responses were obtained.

Table 20. Have you received any training in Administration

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th>Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage %</td>
<td>Frequency</td>
<td>Percentage %</td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>43</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>57</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

These results indicate that most teachers (86%) in day schools have received training in administration while only 43 percent of those in boarding schools have received the
It is however unfortunate that more than a half, 57 percent of head teachers in boarding schools have not received any training in administration. This study also found out that the administration training of head teachers is mainly facilitated by KESI (Kenya Education Staff Institute) and KIA (Kenya Institute of Administration). This training offered runs for 2 to 3 weeks only. Though one may wonder how much can be achieved in such a short period of training, all the head teachers indicated that the training was either useful or very useful.

Leader – Member Relations

Responses obtained on a leader-member relationship indicate that most head teachers agree with the favorable statements and disagree with the unfavorable ones.

Concerning how their subordinates get along with them, all head teachers in boarding schools disagree with the statement that the people they work with have trouble getting along with them while only 28% of those in day schools are of the same opinion. 42% in day schools agree with the statement and 29% were neutral.

All the head teachers always cooperate with their subordinates to get the work done. This has created a friendly atmosphere in most schools except in 14% of the day schools where the head teachers do not agree with the statement that there is a friendly atmosphere among the people they supervise.

58% and 71% of the head teachers in boarding and day schools respectively are of the opinion that their subordinates are reliable and trustworthy while 14% in boarding schools disagree with the statement. However, 29% in both types of schools are neutral to the statement.
84% and 100% of teachers in day and boarding schools respectively disagree with the statement that there is friction between them and their subordinates. Only 14% in day school agree with the statement.

100% and 86% of head teachers in boarding and day schools respectively agree with the statement that their subordinates always give their suggestions on various issues.

85% of head teachers in day schools and only 29% in boarding schools always consult their subordinates before making decisions while 28% of these in boarding schools do not always consult.

All the head teachers in boarding schools have good relationships with the people they supervise while 71% in day schools agree with that statement.

42% and 14% of head teachers in boarding and day schools respectively disagree with the statement that when they give instructions, they are carried out questions while another 14% and 43% in boarding and day schools respectively disagree with this statement.

### 4.7 Enrolment and Teacher-Pupil Ratio

#### Boarding Schools

The boarding schools were found to have higher population of students than the day schools. The mean of their number of students was found to be 425 with a range of 578.

Table 21 below presents the data obtained
<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Total Enrolment</th>
<th>Average No. per Class</th>
<th>No. of teachers</th>
<th>Teacher-pupil ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>316</td>
<td>40</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>200</td>
<td>50</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>370</td>
<td>46</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>530</td>
<td>45</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>328</td>
<td>41</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>6</td>
<td>778</td>
<td>49</td>
<td>38</td>
<td>21</td>
</tr>
<tr>
<td>7</td>
<td>450</td>
<td>45</td>
<td>25</td>
<td>18</td>
</tr>
</tbody>
</table>

The average number of pupils per class here ranges from 40 – 50. The mean of these means is 45. The average number of teachers per school is 22.

This data therefore gives an average teacher pupil ratio for boarding schools as 19 pupils for every teacher.
Day schools

The data obtained here indicates that day schools have a lower enrolment rate than that of boarding schools. The average number of pupils per school is 183.

Table 22 below shows the enrolment rate and teacher-pupil ratio for day schools.

Table 22. Enrolment and Teacher-Pupil Ratio for Day Schools.

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Total Enrolment</th>
<th>Average No. Per Class</th>
<th>Number of Teachers</th>
<th>Teacher-pupil ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>52</td>
<td>21</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>133</td>
<td>33</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>210</td>
<td>53</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>250</td>
<td>36</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>278</td>
<td>35</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>6</td>
<td>175</td>
<td>44</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>180</td>
<td>45</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

The table above shows the number of pupils per class to be ranging from 21 –53. The average of this is 38. The average pupil population per school is 183 while the average number of teachers per school is 12.

This gives the teacher-pupil ratio for day school as 1:15 i.e. 15 pupils for every one teacher. These analysis shows that the pupil enrolment rate in boarding schools is higher than that of day schools but the teacher pupil ratio is also higher in boarding schools. These ratios are however, much below the recommended ratio (Koech, 1999) of 1:40.
4.8 School Programme

This part of the study sought to find out how many hours of private study preps do students have in boarding schools and in day schools.

The responses obtained are summarized in the table below.

Table 23: Hours of Supervised Study Preps per Day

<table>
<thead>
<tr>
<th>Response</th>
<th>Boarding</th>
<th></th>
<th></th>
<th>Day</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Less than 2 hrs</td>
<td>1</td>
<td>14.3</td>
<td></td>
<td>7</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>More than 2 hrs</td>
<td>6</td>
<td>85.7</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100</td>
<td></td>
<td>7</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

From the above responses, all (100%) day schools that participated in the study have less than 2 hours of preps per day, while only 14.3 percent of boarding schools have the same amount of time for preps.

Most 85.7 percent of boarding schools have more than 2 hours of preps per day. It was further found out that 85.7 percent of day schools do not have any preps during weekends while 100 percent of boarding schools do have. Only 14.3 percent of day schools have preps during weekends.
5.0 Introduction

In this chapter the major findings of the study are discussed and interpreted. A summary, conclusion and recommendations based on the findings are also presented.

5.1 Summary

The major aim of this study was to identify and analyse factors that affect academic achievement in boarding and day schools in Kericho districts. The identified factors have then been compared for the two categories of schools.

5.1.1 Teacher Characteristics

Demographic Data

The demographic data of teachers in the two types of schools did not show much difference among the genders in both schools.

Teaching experience

Like the above demographic data, the teaching experience did not show significant difference but percentages were very close to one another.

Academic qualification

From the pie charts, it is observed that a higher proportion of teachers in day school have KACE than that of boarding school. There is also a difference among teachers with Masters degree where there is a notable absence among day school teachers but a proportion of 37.5\(^0\) among teachers in boarding schools.
Professional Qualification

The pie charts indicate that the lower cadre of teachers are more in day than boarding schools. There are non-professional teachers in day schools while there is none in boarding schools. The lowest in boarding school are S1 teachers who are found to be of a very small proportion of 15.3\%.

One other major difference is the presence of teachers with Masters in Education qualification in boarding schools while there is none in day schools. These may be concluded that teachers in boarding schools are more qualified than those in day schools.

Homework Administration

This study found out that most teachers in boarding schools give homework to their students either daily or 2-3 times a week. Out of these, majority mark the work 2-3 time a week. Most teachers in day schools also give homework either daily or 2-3 times a week and mark at the same frequency (rate).

The difference however comes in those who mark students work monthly and those who never. These were all found to be in day schools with a negligible frequency of only 1 out of 48 in boarding schools.
5.1.2 Leadership

**Academic qualification**

This work found out that all head teachers are holders of Bachelors degree and above. A higher percentage of those with bachelors’ degree are in day schools and a lower in boarding. The boarding school however has a higher percentage of head teachers with Masters degree.

**Professional qualification**

As for academic qualification, all the head teachers are professional teachers. All head teachers in boarding schools are graduate teachers while among those in day schools, 14.3 percent are approved graduate and another 14.3 are senior graduate teachers. Majority however are graduate teachers like those in boarding schools.

**Teaching experience**

An equal percentage 43 percent of teachers in both boarding and day schools have taught for above 15 years. A higher percentage of 57 percent of the teachers in boarding schools have taught for 11-15 years while 43 percent of teachers in day schools are in this category.

The main difference comes in the least experience category of 6 – 10 years. They are all found in day schools.
Training in Administration

The results obtained indicate that majority (57%) of head teachers in boarding schools have not received training in administration while majority 86% of those in boarding schools have received the training. It was also found out that the main training agent for these teachers in KESI (Kenya Education Staff Institute) which offers them a 2-3 weeks period of training.

Leader – Member Relations

The findings of this study show that the head teachers in day schools have closer relationships with their subordinates unlike those in boarding. The latter however, have relationships that are more unfavorable with their subordinates than those in day schools.

5.1.3 Teaching / Learning Resource and Physical facilities

Most of the boarding schools 86 percent have libraries, which are fairly equipped while only 43 percent of day schools have libraries. Out of this percentage, 50 percent of them are fairly equipped while another 50 percent are poorly equipped.

Textbooks

Most schools use textbooks except for 4 percent of day schools which do not have any text books. Concerning adequacy, more boarding schools showed that they have adequate books than the day schools.
Physical facilities

Some physical facilities such as laboratories, playing fields and bookstore are common to both types of schools. The boarding schools however have a few facilities that are not in day schools. These are home science rooms, workshops, music rooms and multipurpose halls. These facilities are however not found in all the boarding schools but in a few of them.

5.1.4 Enrolment and teacher / pupil Ratio

The boarding schools have been found to have high population of students than day schools.

They also have a higher number of pupils per class than day schools. Teachers-pupil ratios are lower in day schools than in boarding schools.

5.1.5 School-programme

The boarding schools have at least 2 hours per day of supervised study preps while all the day schools have less than 2 hours.

All day schools are also found to have weekend preps for their students while a very small percentage 14.3 percent of day schools have the same.

KCSE Results

The KCSE results for the schools that participated in study were obtained for the last three years (see appendix III). The mean of each school was calculated. The table 24 below gives the average mean score for the schools.
Table 24: Average Mean Score

<table>
<thead>
<tr>
<th>School</th>
<th>Average mean score</th>
<th>School</th>
<th>Average mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A</td>
<td>7.377</td>
<td>A</td>
<td>4.99</td>
</tr>
<tr>
<td>2 B</td>
<td>7.314</td>
<td>B</td>
<td>4.135</td>
</tr>
<tr>
<td>3 C</td>
<td>6.529</td>
<td>C</td>
<td>4.690</td>
</tr>
<tr>
<td>4 D</td>
<td>6.596</td>
<td>D</td>
<td>3.507</td>
</tr>
<tr>
<td>5 E</td>
<td>6.649</td>
<td>E</td>
<td>3.729</td>
</tr>
<tr>
<td>6 F</td>
<td>5.36</td>
<td>F</td>
<td>3.679</td>
</tr>
<tr>
<td>7 G</td>
<td>7.233</td>
<td>G</td>
<td>3.426</td>
</tr>
</tbody>
</table>

Σ 47.058 x 6.723  
Σ 28.156 x 4.022

From the above table, the boarding schools have a higher average of mean scores than the day schools. This implies that the performance of boarding schools for the last three years has been better.

This performance has come about as a result of the above factors.

5.2 Conclusion

This study has identified some differences in factors that affect performance in boarding and day schools.

Teachers’ academic and professional qualifications show that boarding schools have more teachers with higher academic and professional qualifications than day schools.

Teachers in boarding schools are found to mark pupils homework more frequently than
Concerning leadership, headteachers in boarding schools are found to be having higher academic and professional qualifications than their colleagues in day schools. Leader-member relationship scale shows that headteachers in day schools are more positively related to their staff than those in boarding schools. This relationship seems to be affecting negatively on the performance of the pupils. It can be concluded therefore that for better performance, the head teachers should not be very closely related to teachers. This brings a friendship atmosphere that is detrimental to performance of duty by the two parties. It has been found out that boarding schools have more teaching / learning resources and physical facilities than day schools.

Enrolment of pupils in boarding schools is higher than day schools and also the teacher-pupil ratio. In day schools however some of the teachers are non-professional. This means that if only the professional teachers are considered, the teacher-pupil ratio for day schools would be different than what was observed.

These coupled up with poor availability of teaching learning resources have contributed a great deal to the observed difference in performance. The preps time available in boarding schools may have also contributed to the difference in performance.

The obtained analyzed KCSE results indicate that boarding schools performance in better than that of day schools. This is a reflection of the observed factors where
boarding schools seem to be having more qualified teachers, more teaching learning
facilities, more physical facilities and more time for private studies.

Schools should therefore strive to ensure the above factors are favorable for better performance.

5.3 Recommendations

From the results of this study, it is now very clear that the performance of students in boarding school is much better than that of day schools. This gap may however be bridged or narrowed down if:

i. Non-professional teachers are not allowed to teach in any school.

ii. Qualified teachers are posted to replace the non-professionals currently teaching.

iii. Teaching-learning resources are supplied equally to all schools.

iv. Day schools should change their school programmes to ensure that pupils have more time for supervised preps everyday and also during weekends.

The above are the factors, which are found to, may have caused difference in academic achievement of students. However, achievement is affected by many other factors not considered in this study. It is therefore my recommendation that investigations be made into the entry behaviour of pupils to secondary schools to determine their abilities and how that impacts on performance at KCSE.

The effect of socio-economic background of the pupils should also be investigated and related to the achievement at KCSE.
REFERENCES


Journal Article from Web

Appendix I:

Teachers Questionnaire

The objective of this questionnaire is to collect information on factors that influence academic achievement of students within a school. Kindly provide the required information to the best of your knowledge. However, the usefulness of the information will depend solely on your honesty. The information given will be treated with strict confidentiality. You are not required to indicate any form of identification.

Status (Boarding and Day school)

PART I

Please respond to each question by ticking (✓) against appropriate information that applies to you:

1. Sex:  Male □  Female □

2. Teaching experience
   (a) 0 – 5 years □
   (b) 6 – 10 years □
   (c) 11 – 15 years □
   (d) Over 15 years □
3. Education or academic qualification

(a) KCSE or Equivalent
(b) KACE or Equivalent
(c) Bachelors Degree
(d) Master Degree
(e) Any other (please specify) __________________

4. Professional Qualification

(a) Non-professional
(b) Secondary Teacher 1, S1
(c) Graduate Approved Teacher
(d) University Graduate
(e) Master Degree
(f) Any other (Please specify) __________________

PART 2

Please respond to each of the following questions on availability of teaching resources by ticking (√) against the appropriate answer.
5. Do students in your school use textbooks?
   Yes ☐ No ☐

7. If your answer in 5 above is Yes, please indicate the classes you teach and the extend to which the issue of textbooks is adequate

<table>
<thead>
<tr>
<th>Class</th>
<th>Inadequate</th>
<th>Adequate</th>
<th>More than Adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Does your school have a library?
   Yes ☐ No ☐

9. If your answer above is Yes, how well equipped is it?
   (a) Fully equipped ☐
   (b) Fairly equipped ☐
   (c) Poorly equipped ☐

10. Is there a science laboratory in your school?
    Yes ☐ No ☐
11. If your answer above is Yes, state how well equipped it is
   (a) Fully equipped
   (b) Fairly equipped
   (c) Poorly equipped

12. How often do you use teaching/learning resources in your schools?
   (a) Always
   (b) Rarely
   (c) Never

PART 3

13. How would you rate the level of discipline among your students?
   1. Very disciplined
   2. Disciplined
   3. Undisciplined
   4. Very undisciplined

14. How would you rate the attitude of your students towards academic work?
   1. Very negative
   2. Positive
   3. Negative
   4. Very positive
15. How would you rate your students in terms of academic ability generally

1. Very strong
2. Strong
3. Weak
4. Very weak

16. How frequently do you give your students homework

1. Daily
2. 2-3 times a week
3. Once in two weeks
4. Monthly
5. Never

17. How frequently do you mark your students homework

1. Daily
2. 2-3 Times a week
3. Once a week
4. Once in two weeks
5. Monthly
6. Never
Appendix II:

Head Teachers Questionnaire

The objective of this questionnaire is to collect information on factors that influence academic performance of students within a school. Kindly provide the required information to the best of your knowledge. However, the usefulness of the information will depend solely on your honesty.

The information given will be treated with strict confidentiality. You are not required to indicate any form of identification.

School status (Boarding or Day) ____________________________

PART I

1. Education or academic qualification

(a) KCSE or Equivalent □
(b) KACE or equivalent □
(c) Bachelors Degree □
(d) Master Degree □
(e) Any other (Please specify) ____________________________

2. Professional qualification

(a) Non-professional teacher □
(b) Secondary teacher 1, S1 □
3. Teaching experience
   (a) 0 – 5 years
   (b) 6 – 10 years
   (c) 11 – 15 years
   (d) Above 15 years

4. Have you received any training in administration?
   Yes  □
   No   □

5. If, Yes where did you receive your training in administration

6. How long was your training in administration?

7. How useful was the administration training
   (a) Very useful
   (b) Useful
   (c) Not very useful
   (d) Not useful at all
PART 2

Please indicate the number, which best represents, your response to each item.

Keys:  1 represents Strongly Agree
       2: represents Agree
       3: Neither Agree nor Disagree
       4: Disagree
       5: Strongly Disagree

Use the above information to fill the table below:

<table>
<thead>
<tr>
<th></th>
<th>5 Strongly Agreed</th>
<th>4 Agreed</th>
<th>3 Neutral</th>
<th>2 Strongly Disagree</th>
<th>1 Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The people I work with have trouble getting along with me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My subordinates always cooperate in getting work done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. There seems to be friendly atmosphere among the people I supervise.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. My subordinates are reliable and trustworthy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. There is friction between me and my subordinates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. My subordinate always give their suggestions on various issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I always consult my subordinate before making decisions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I have good relationship with people I supervise.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. When I give instructions, they are always carried out without questions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PART 3

1. Is there a library in your school?
   
   Yes ☐  No ☐

2. If you answer above is Yes, please indicate how often each class uses the library by ticking on the appropriate column.

<table>
<thead>
<tr>
<th>Class (Form)</th>
<th>Don’t use it</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. What other physical facilities do you have in your school?
   
   10. ____________________________
   
   11. ____________________________
   
   12. ____________________________

PART 4

1. What is the total enrolment in your school?
   
   90
2. What is the average size of a class in your school, please indicate below.

<table>
<thead>
<tr>
<th>Form</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of streams</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average No of Pupils per stream</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. How many teachers do you have in your school?

PART 5

4. Approximately how many hours of supervised study preps do your students have per day

a) None
b) Less than 2 hours
c) More than 2 hours

5. Do your students have any supervised preps during weekends

Yes ☐  No ☐