INFLUENCE OF SCHOOL CLIMATE ON PUPILS' PERFORMANCE AT KENYA CERTIFICATE OF PRIMARY EDUCATION IN CENTRAL DIVISION OF MACHAKOS DISTRICT, KENYA.

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DECLARATION

This research project is my original work and has not been presented for award of a degree in any other university

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This research project is in memory of my beloved late brother, Mr. David Mitema Nyamosi and our children Fred, Dennis, Derrick and Rebeccah, and our grandchild Mwango.

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I thank God for giving all of us good health, love, patience, tolerance and unity to work together.

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ABBREVIATIONS AND ACRONYMS

A.W.E.R.C	Arab World's Education Report Card
CDCP	Centre for Disease Control and Prevention
CDF	Constituency Development Fund
CSCI	Comprehensive School Climate Inventory
CSEE	Centre for Social and Emotional Education
DEO	District Education Officer
GLSEN	Gay, Lesbian and Straight Education Network
KCPE	Kenya Certificate of Primary Education
KESSP	Kenya Education Sector Support Programme
NSCC	National School Climate Council
OCDQ	Organizational Climate Description Questionnaire
OHI	Organizational Health Inventory
P1	Primary Teacher 1
PSEA	Pennsylvania State Education Association
S1	Secondary Teacher 1
SPSS	Statistical Package for Social Sciences
TSC	Teachers' Service Commission
WHO	World Health Organization

ABSTRACT

This study sought to establish the influence of school climate on pupils' performance at Kenya Certificate of Education (KCPE) in public primary schools in Central Division of Machakos district in Kenya. The specific objectives of the study were: To determine the extent to which the state of school infrastructure influence KCPE performance in Machakos county, To analyze how adequacy of teaching/ learning resources influence KCPE performance in Machakos county, To determine how interpersonal relationships in school influence KCPE performance in Machakos county, and To establish safety precautions in school that influence KCPE performance in Machakos county. The study was guided by Systems Theory. Stratified sampling was used to get the sample schools. The schools were stratified according to the zones which make up zone Central division; Muvuti, Mumbuni and Mutituni. The sample schools were categorized according to 2012 KCPE performance. Schools that performed well were categorized as category A, those that performed averagely were category B, and the low performing were category C. Two schools from each category were randomly selected. The study targeted sixty nine public primary schools. Eighteen schools which comprised of 500 respondents were used for the study. Questionnaires and observation schedules were used to collect data. Correlational study was used to investigate the influence of school climate on pupils' performance at KCPE in public primary schools.

The study revealed that the state of school infrastructure, adequacy of teaching/learning resources, interpersonal relationships and safety measures when put in place can influence KCPE performance. The study revealed that 62% of the respondents preferred that their school infrastructure required urgent improvement, 83% preferred their teaching/learning resources needed urgent improvement, 61% preferred that their interpersonal relationships needed urgent improvement, and 41% preferred urgent safety measures. The study revealed that the headteacher's age and educational level do not influence a school climate but a headteacher's period in a work station greatly influenced a school climate.

The study recommended that stakeholders should improve the state of school infrastructure, provide adequate teaching/learning materials and put proper safety measures in place in order to improve school climates in the public primary schools. Head teachers should also create healthy and constructive interpersonal relationships among the school community members in order to improve school climates.

The study recommended the following areas for futher research :

i) To find out other factors that may be indicators of school climate.
ii) To find out how head teachers influence school climate.
iii) To establish influence of school climate in well performing, average and low performing public and private primary schools in other counties in kenya.
iv) To establish influence of school climate in well performing, average and low performing private primary schools in other counties in Kenya
v) To establish influence of school climate in well performing, average and low performing public secondary schools in other counties in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Education, in its general sense, is a form of learning in which knowledge, skills and habits of a group of people are transferred from one generation to the next through teaching, training or research. Education occurs through any experience that has a formative effect on the way one thinks, feels or acts (Getzels & Guba, 1970).

Schools are social institutions .Within a school organization, there are teachers, administrators, learners and many kinds of service personnel. Distinctive positions are occupied by members of each group and are expected to behave in certain ways. The interactions and relationships among school members are varied and complex. Only if these relationships and interactions are understood and generally accepted can the organization function effectively (Campell, Corbally & Nystrand, 1983).

School climate has been defined in various ways by many authors. Halpin and Croft (1963) define school climate as the social atmosphere of a setting or a learning environment which gives learners different experiences depending upon the protocols set up by teachers and administrators. Perkins (2006) defines school climate as the learning environment created through the interaction of human relationships, physical setting and psychological atmosphere. School climate is based on people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching/ learning practices and organizational structures. It also

includes expectations that support people‘s feeling socially, emotionally, intellectually, psychologically and physically safe. Every school has a climate that distinguishes it from other schools and influences behavior and feelings of teachers and pupils of that school (Sergiovanni & Starrat,1988).

School climate is a complex multi-dimensional construct that includes physical, social and academic dimensions. Elements that comprise a school climate are extensive and complex .To date, there is no one commonly accepted list of the essential dimensions that color and shape school climate. The patterns of norms, goals, values and interactions that shape relationships in school provide an essential foundation for school climate. One of the most important aspects of relationships in school is how connected people feel to one another. The interaction between teachers and students will directly affect students' behavioral and emotional engagement in the classroom. Teachers should interact positively with learners to engage them and enable them to behave appropriately, (Centers for Disease Control and Prevention 2009).School climates vary greatly. In some schools, members may feel the climate to be friendly, inviting and supportive (conducive/open), whereas in others, some members may feel the climate to be exclusively unwelcoming and even unsafe (unconducive/closed). School climate is not necessarily experienced in the same way by all its members; in a school, some members may feel the climate to be conducive while others may feel it to be unconducive, (National School Climate Center, 2007).

In a conducive school climate, people are respected and engaged. Learners, families and educators work together, live and contribute to a shared vision. Each person contributes to the operations of the school as well as the care of the school environment. Teachers model and

nurture an attitude that emphasizes the benefit from learning. For example, in some of the schools in America, parents, learners and educators work together, live and contribute to a shared vision. This has led to creating conducive climates whereby all the members concerned are engaged, live and work as a family. Academic achievement has been realized in such schools. NSCC (2007).

A positive school climate is correlated with students' attendance, higher retention rates and better academic performance. It promotes co-operative learning, group cohesion and mutual respect. These aspects directly improve the learning environment (Gaith, 2003).Schools perceived as being positive, safe and with nurturing environment that focus on learners' learning perform better in examinations regardless of available technology or teacher training. This means that the learning environment, culture and climate created by the school may foster or hinder learning (Farrant 1980). Learners from private primary schools in Kenya have always performed well at Kenya Certificate of Primary Education compared to most public primary schools. Perhaps, it is because the private schools have adequate infrastructure, adequate teaching/learning materials, good interpersonal relationships, and proper safety precautions put in place.

Quality of education is evaluated in terms of the grades obtained and the number of learners that pass national examinations. The expectation of parents is that their children perform well in national examinations such as Kenya Certificate of Primary Education so that the learners can secure admission in better performing secondary schools in the republic, (Eshiwani 2003).

In America, research shows that bullying, name-calling and harassment are a serious problem in elementary schools. Learners are bullied because of their body size, appearance, followed by

their ability at school. This state makes them feel less safe at school and the affected tended to absent themselves from school and this has led to poor performance as confirmed by the Gay, Lesbian and Straight Education Network (2012). To curb the vices, a growing number of districts and state departments of education are in the process of adopting, promoting, enhancing and sustaining a positive school climate. It sets policies promoting the development and sustainability of social, emotional, ethical and civic development of students. It enhances engagement in teaching, learning and school wide activities, addresses barriers to learning and teaching, and re-engages those who have become disengaged. It also creates an environment where all members are welcomed, supported and feel safe in schools socially, emotionally, intellectually and physically (National School Climate Center 2009). School district leaders also make efforts to convince federal policy makers and local taxpayers of the need to invest resources in replacing and/ or renovating inadequate school facilities. The renovated school facilities influence learners and teachers to love their schools and they feel that they are taken care of. Both teachers and learners also work hard and finally they improve the academic performance (The Walls Speak 2006).

The Arabic World Education Report Card (2012) revealed that in some African countries such as Algeria, Morocco, Egypt and Tunisia, most primary schools had climates that are unconducive. Many pupils didn't feel safe physically, socially and emotionally in school. Teachers joined their profession with deficient academic preparation and pre-service training and did not receive adequate and appropriate professional development during service. There is a lot of rote memorization of facts, student and teacher absenteeism, classroom overcrowding and limited teaching and learning resources. Corporal punishment and other measures of humiliation have

been commonly used by teachers and administrators to discipline unruly or low performing pupils. Other forms of punishment include insults, ridicule and exclusion. Other students suffer from bullying and experience physical fights with other students, theft of personal property and harassment by other students. Most teachers work in poor working conditions such as lack of work space and unsafe facilities. The classrooms also lack basic sanitary conditions and teachers' office space may be too small and noisy to allow them work outside class hours. All these factors contribute to creating unconducive school climate. This school climate does not enable teachers and learners to attain the academic objectives as expected. Both teachers and learners result to absenteeism which seriously affects academic performance.

In Kenya, cases of school violence and harassment which can be on teacher-on-teacher, teacher-on-learner, learner-on-teacher, or learner-on- learner takes the form of physical violence such as pinching, slapping, twisting of ears/ pulling of ears, corporal punishment and sexual harassment have been reported in some schools. Some teachers emotionally abuse learners through verbal abuse, harassment, taunts and belittling. Learners and teachers are also very vulnerable to threats such as bullying by their colleagues, intimidation, sexual abuse, verbal and physical abuse and all manner of harassment. Apart from personal threats, insecurity for learners also emanates from inappropriate school facilities and infrastructure; these include poorly constructed classrooms and playing grounds, insufficient and broken- down toilet facilities, gender insensitive location of toilets and bathroom facilities, and inadequate and inappropriate desks and other furniture. Safety in primary schools is also an issue as cases of violence are frequently reported. This state creates an unconducive climate for teaching and learning which adversely influence academic achievement as confirmed by (Ministry of Education, Safety Standards Manual 2008).

1.2 Statement of the Problem

Since 1999, most schools in Central Division have been performing poorly in K.C.P.E as highlighted in The Anchor (2010), and Education News (Jan 17 – Feb 2, 2012). Most of the school buildings in Machakos County were constructed in early 1970's. This means that some buildings are old and some have leaky roofs, walls have cracks, unlockable doors and broken or no window panes. Because some of these buildings are old and not well maintained, they are unattractive and hence reduce both the learners' and teachers' morale. Toilets are not girl-child friendly because there are no bins for disposing their used pads.

Furniture in some schools is old and some desks are not of the learners' height; some are either short for the learners or too high thus making them uncomfortable when learning. Some classrooms lack tables where teachers place their teaching/learning materials while teaching. Classrooms lack cupboards where textbooks can be safely kept (The Anchor 2010).

Some learners do not have enough learning materials (text books) and some of them are in poor conditions. Therefore, some learners are not able to do homework because they do not have enough text books to refer to. Teachers therefore, have to give work that can be done during school hours. Otherwise, if it is to be done at home, pupils without textbooks do not do homework thus making the teachers punish them for not doing the work and some learners therefore opt to be absent. Learners without textbooks develop fear and dislike homework hence leading to poor performance. Sometimes, teachers also lack essential items like manila papers.

Some teachers have worked in one work station for many years and this makes them relax in doing their work hence, affecting KCPE performance.

As a participant observer, the researcher would like to establish how most of these elements, which are variables of school climate, influence K.C.P.E performance in Central Division in Machakos District of Machakos County in Kenya. It will be pleasant for teachers and learners to work in conducive working environments that are safe, have adequate school infrastructure and teaching/learning resources, and members have warm interpersonal relationships.

The researcher would like to make deliberate effort to study the influence of school climate on academic performance because studies on school climate and performance in Kenya are scanty.

1.3 Purpose of the Study

The study sought to determine the influence of school climate on pupils' performance at Kenya Certificate of Primary Education in public primary schools in Central Division, of Machakos District in Kenya.

1.4 Objectives of the Study

The study was guided by the following specific objectives:

(i) To determine the extent to which the state of school infrastructure influences Kenya Certificate of Primary Education performance in Machakos County.

(ii) To analyze how adequacy of teaching/learning resources influences Kenya Certificate of Primary Education performance in Machakos County.

(iii) To determine how interpersonal relationships in a school influence Kenya Certificate of Primary Education performance in Machakos County.

(iv) To establish safety precautions in school that influence Kenya Certificate of Primary Education performance in Machakos County.

1.5 Research Questions

The study was guided by the following research questions:

(i) To what extent does the state of school infrastructure influence Kenya Certificate of Primary Education performance in Machakos County?

(ii) How does adequacy of teaching/learning resources influence Kenya Certificate of Primary Education performance in Machakos County?

(iii) To what extent do interpersonal relationships in a school influence Kenya Certificate of Primary Education performance in Machakos County?

(iv) Which safety precautions in school influence Kenya Certificate of Primary Education performance in Machakos County?

1.6 Significance of the Study

This study, depending on the outcome of the results, may add value to the existing body of knowledge on the factors that influence K.C.P.E performance in Machakos County. It may therefore be a source of information to other researchers and scholars.

The research findings may serve to sensitize head teachers to improve school climate in public primary schools through provision of basic requirements to both learners and teachers, improve interpersonal relationships, and ensure safety measures are put in place.

The findings may unearth the causes of unconducive school climate in public primary schools and enable stakeholders take control measures to curb them hence improve school climate that will improve performance.

Ministry of Education may use the findings to provide and allocate adequate teaching/ learning resources to all public primary schools to improve school climates that influence academic achievement.

1.7 Limitation of the Study

Some respondents may be influenced to answer the questionnaire items in a socially desirable direction in regard to their own behavior or their school because they wouldn't like to reveal the true picture of their schools. This may lead to distortion of data.

In a school, members have different attitudes and perceptions regarding their work place. Conditions which are good to an individual may be bad to another. Therefore, data collected may not exactly depict true conditions of a work place.

Lastly, at present, the instruments that have been used in other countries such as the Organizational Climate Description Questionnaire (OCDQ), the Organizational Health Inventory (OHI) and the Comprehensive School Climate Inventory (CSCI) among others may not be very appropriate for Kenyan school contexts unless modified to suit the Kenyan context.

1.8 Delimitation of the Study

The study investigated the influence of school climate in public primary schools in Central division of Machakos District in Machakos County, Kenya. The study was limited to head teachers, teachers and pupils of sampled public primary schools. Data collected by the research instruments involved sampled headteachers, teachers and learners.

1.9 Assumption of the study

a) KCPE results were an appropriate indicator for measuring school climate.

1.10 Definition of Significant Terms

Burnout Refers to an extreme state of psychological strain and depletion of energy caused by prolonged exposure to stressors such as a lot of work in a work place.

Head teacher Refers to any teacher appointed by Teachers' Service Commission as the administrative head in the day to day management of a public primary school.

Influence Refers to positive or negative effect.

Infrastructure Refers to physical facilities used to offer services in a school.

Kenya Certificate of Primary Education Refers to a national examination in Kenya done at the completion of eight years of learning in primary school.

Morale Refers to the collective sense of friendliness, openness and enthusiasm among members of the teaching staff.

Perceptions Refers to the way human beings assess situations.

Performance Refers to the ability of doing an examination whereby a candidate can either pass or fail.

Safety precautions Refer to preventive measures that can be taken to ensure a good working environment.

School climate Refers to the members' perceptions of their work place, the attitudes created and how they influence their motivation towards academic performance.

Stakeholders Refers to all people who have a stake in the welfare of a school.

1.11 Organization of the Study

The study was organized into five chapters; Chapter one consists of the background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitation of the study, delimitation of the study, assumptions of the study, and definition of significant terms.

Chapter two reviews literature review related to school climate concept and school academic performance, influence of infrastructure and school academic performance, influence of interpersonal relationships and school academic performance, influence of adequate teaching /learning resources and school academic performance, influence of safety precautions in school and academic performance, summary of literature review, theoretical framework, and conceptual framework.

Chapter three presents research design, target population, sample and sampling procedure, research instruments, instrument validity, instrument reliability, data collection procedure, and data analysis procedure.

Chapter four focuses on data presentation, analysis and discussion of the findings.

Chapter five contains the summary of the findings, conclusion, recommendations and suggestions for further study, appendices and references.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this section, literature related to school climate was discussed under the following subheadings: School climate concept on school academic performance, influence of infrastructure and school academic performance, influence of adequate teaching/learning resources and academic performance, influence of interpersonal relationships and academic performance, influence of safety precautions and performance in academics, summary of literature review, theoretical framework, and conceptual framework.

2.2 School climate concept on school academic performance

The concept of school climate is not new**.** Perry (1908) was the first educational leader to explicitly write about school climate. Although Dewey (1927) did not explicitly write on school climate, his focus on the social dimension of school life and the notion that schools should focus on enhancing the skills, knowledge, and dispositions that support engaged democratic citizens implicitly touched on what kind of environment or school climate the school reflects. These and other very early writings about school climate were, in essence, case studies. Early school climate studies tended to focus on observable characteristics, like the physical plant and the condition of the school (Anderson, 1982).

Educators have written about and studied school climate for the last 100 years. School climate is more than an individual's experience; it is a group phenomenon that is larger than any one

person's experience. Students, educators and families work together to develop, live and contribute to a shared school vision and climate. They nurture an attitude that emphasizes the benefits of, and satisfaction from learning. Each person contributed to the operations of the school and the care of the physical environment (Teachers College Record Vol. 111 Number 1)

2.3 School infrastructure and school academic performance

Promoting a conducive school climate requires, among other things, a healthy physical environment that is attractive to teachers and learners and conducive to learning, Farrant (1980). Working condition is a factor that has modest effect on job satisfaction. Luthans (2011), asserts that clean and attractive surroundings tend to make workers happy when doing their work. The converse is true that poor working conditions such as inadequate space, noise and uncomfortable surrounding would make the workers dissatisfied with their work.

A study carried out in America found out that the physical state of a school could impact learners' achievement. Several aspects of a school building could also affect learning, including spatial configurations, noise, school compound and school buildings. Learners needed clean air, good lighting, quiet and comfortable classrooms in order to achieve their highest levels. The organization of classrooms, including the arrangement of furniture could also impact student behavior and learning by optimizing learning time, minimizing disruptions and maintaining an orderly and effective learning environment, (National School Climate Center, 2007).

Branham (2004) carried out a study at the University of Houseton on the effects of inadequate school building infrastructure on student attendance. The findings were that if a school is damaged and left unrestored, the disrepair would create an atmosphere of instability that tended to strangle social order and the educational process; students in such an environment perceived that they were not special, that school was not important, that no one really cared, and as a result would more likely stay home, giving education low priority in their lives. This finally led to low academic achievement.

A study was carried out in Antwerp on the impact of infrastructure and the findings were that the quality of school infrastructure definitely had a strong impact on an individual's well being at school (Katrien 2011). Mwaura (2011) carried out a study on the effectiveness of Kenya Education Sector Support Program grants on improvement of primary school infrastructure in Kiambu District. The findings were that there was shortage of infrastructure and existing facilities were in poor condition thus leading to poor working environments.

Field surveys conducted by Ministry of Education reveal that poor primary school infrastructure is one of the major barriers of improving access to primary education in Kenya. Existing infrastructure are generally in poor condition due to lack of investment capital, poor construction standard and inadequate maintenance. Following the introduction of Free Primary Education in 2003, additional pressure was put on existing school infrastructure. Results of the sharp rise in number are poor conditions and overcrowding that is not conducive to good learning environment (Kenya Education Sector Support Programme 2005-2012).School buildings in many countries are in a poor state. For example, most Kenyan schools have poorly constructed

classrooms and playgrounds, insufficient and broken-down toilet facilities, gender insensitive location of toilets and bathroom facilities, and inadequate and inappropriate desks and other furniture. School buildings in public primary schools need to be renovated and maintained in order to create attractive teaching/learning environments for both teachers and learners (Ministry of Education, Safety Standards Manual 2008).

2.4 Teaching/Learning Resources and School Academic Performance

The education system in Kenya is evolving steadily even though faced with a number of shortcomings which include inadequate teaching/learning resources in public primary schools. Availability of teaching/learning resources enhances the effectiveness of schools as these are the basic things that cause good academic performance (KESSP 2005-2012).

All institutions are made up of human resources (teachers) and non-human resources. Omondi (2010) carried out a study in Bondo District on teaching and learning resources and their influence on performance. The findings were that when the right quantity and quality of human resources was brought together, it could manipulate other resources towards realizing institutions' goals and objectives. However, Kathari in Ndanuko (2001) carried out a study on factors that influence performance in Nakuru District and the findings were that there was no significant relationship between the number of textbooks learners had and their performance. Every institution should, however, strive to attract and retain the best human resource, equipped with adequate non-human resources to achieve the goals and objectives of education.

2.5 Interpersonal relationships and school academic performance

The process of learning and teaching is fundamentally relational. One of the most important aspects of relationships in school is how connected people feel to one another. From a psychological point of view, relationships refer not only to relations with others but relations with us; how we feel about and take care of ourselves. School connectedness is a powerful predictor of and/or is associated with adolescent health and academic outcomes (Center for Social and Emotional Education Brief vol. 1 No. 1). Bateson (1972) states that human beings have a tendency to involve themselves in sequences of cumulative interaction and that interaction is subjected to some sort of modification, reconditioning or inhibition. This interaction is what develops relationships amongst teachers, teachers and learners and amongst learners.

A significant body of research indicates that academic achievement is influenced by the quality of interpersonal relationships within a school. Thomas (1981), states that learners prefer teachers who are warm and friendly. Learners who felt liked by their teachers had higher academic achievement and more productive classroom behavior than do learners who felt their teachers held them in lower regard. He also asserts that learners come from different home backgrounds. Therefore, a teacher needs to understand the value of the learner's sense of belonging which could be of greater value and build self- worth for all learners. Sometimes, teachers shout and yell at learners. Children who are yelled at by a teacher feel rejected and frightened. This creates a school climate that is not conducive for learning to take place hence leading to low academic achievement.

If a teacher-learner relationship was negative and conflictual in kindergarten, it was more likely that the learner would have behavioral and academic problems in later grades (American Psychological Association). Positive interpersonal and optimal learning opportunities for students in all demographic environments could increase achievement levels and reduce maladaptive behavior McEnvoy & Welker, 2000 in Cohen (2009). Pre-school children who have a lot of conflict with their teachers show increase in stress hormones when they interact with these teachers as confirmed by Lisonbee, Mize, Payne, & Granger (2008) in the American Psychological Association. The quality of relationships between teachers and learners should be continuously checked (Pennsylvania State Education Association, June 2011).

Likert (1961) asserts that interaction between head teachers and teachers within a school should be supportive. The head teacher should support the teachers and consequently the teachers should support the head teacher. Sergiovanni and Starrat (1988) argue that work of a school needs to be accomplished within an environment in which there is good interaction between the head teacher and the teachers, as well as with the pupils. This is because every member has a defined role to play; failure to which the school's objectives will not be achieved. They observed that the way the head teacher interacts with the teachers will be noted by the learners and have an influence on learning in the classroom. The same sentiments were held by Croft and Halpin (1966) that if a head teacher and teachers were just acting out parts that had little meaning, the pupils would also start acting out parts that had little meaning for them. This would create a situation whereby there was no mutual respect amongst teachers and the head teacher, and amongst learners. Hence, there would be indiscipline from both learners and teachers. As a result, there would be no unity in school. This would, therefore, create a situation where there

was no peace and harmony and all the concerned members would work under stress which would result to creating an unconducive climate for teaching and learning.

Ndanuko (2001) carried out a study in public primary schools in Nairobi Province on head teachers' relationships with other teachers and how it created school climate. The findings were that head teachers did not exercise active supervision over the teachers, had no concern for the teachers as individuals, and did not make any personal favors to the teachers. They were cheerful, enjoyed the company of each other, worked energetically, and did not socialize much outside the school. Finally, they did not visit each others' homes or establish very close friendship.

2.6 Safety Precautions in School and Academic Performance

A safe school is one that lacks direct and indirect violence, fear and drugs or alcohol, and one where a positive school climate enhances learning and feelings of safety. Schools should be safe, nurturing environments that facilitate learning for all. (American School Health Association Vol.81, No. 4).

Ministry of Education carried a study in eight provinces of Kenya to find out progress in gender equality. The findings were that most schools did not have proper safety measures such as school fences and sanitation measures and that was why most girls dropped out of school (Southern and Eastern Africa Consortium for Monitoring Educational Quality, Policy Brief Number 6).

2.7 Summary of literature review

This chapter has reviewed literature that is related to school climate and academic performance. School climate is a concept that has been researched on globally, regionally and locally. It has been researched on by individuals, organizations and international bodies.

Deliberate effort has been made in Western countries to study the influence of school climate on academic performance. However, in Kenya, studies on school climate and performance are scanty.

In this study, the researcher carried out a study to find out the influence of school climate on pupils' performance at Kenya Certificate of Primary Education in Central division of Machakos district, Kenya.

2.8 Theoretical framework

Systems theory was proposed by a biologist Ludwig Von Bertalanffy (1968). He emphasized that systems are open to, and interact with their environments, and that they acquire qualitatively new properties through emergence, resulting in continual evolution. School climate can be viewed through the lens of Systems Theory. The model for interpreting school climate consists of input, process and output.

The school as a social system has a series of sub-systems which interact with each other and the environment. A school's sub-system can be conceptualized as being comprised of teachers, learners and support staff. Each sub-system has to relate to others and to the whole and yet keep its own identity. Social systems are comprised of interdependent parts, characteristics and

activities that contribute to the whole. Every system is goal directed and has certain outputs. When one part is affected, a ripple effect goes throughout the system. (Hoy and Miskel, 2008).

In terms of a school, the inputs into the school system are the learners, teachers, support staff and their characteristics. Other inputs could be physical infrastructure, teaching/learning resources, interpersonal relationships, and safety precautions put in place. For teaching and learning to take place, there must be adequate teaching/learning resources such as teachers, classrooms, furniture and stationery. The teachers and learners should have healthy interpersonal relationships of mutual respect, love and trust.

The process would refer to instructional process, interaction and communication that take place within and out of the school. Open systems are always dependent on the environment with which it can exchange matter and information. The resulting output would refer to the interaction of the teachers and learners in terms of their behavior, interpersonal relationships, attitude, and motivation which influence perceptions within a school hence creating a school climate that will influence academic performance.

Open systems are always dependent on the environment with which it can exchange matter and information. The environment of the school and its facilities, the larger community and the society can influence the behavior, attitudes and perceptions of the teachers, learners and the support staff in a school which may influence academic performance negatively or positively.

2.9 Conceptual Framework

In every learning institution, there is a school climate. The school climate could be conducive or unconducive depending on how the members perceived their work place as regards the physical infrastructure, teaching/learning resources, interpersonal relationships and safety precautions put in place.

Figure 2.1 Factors influencing a school climate that affects academic performance

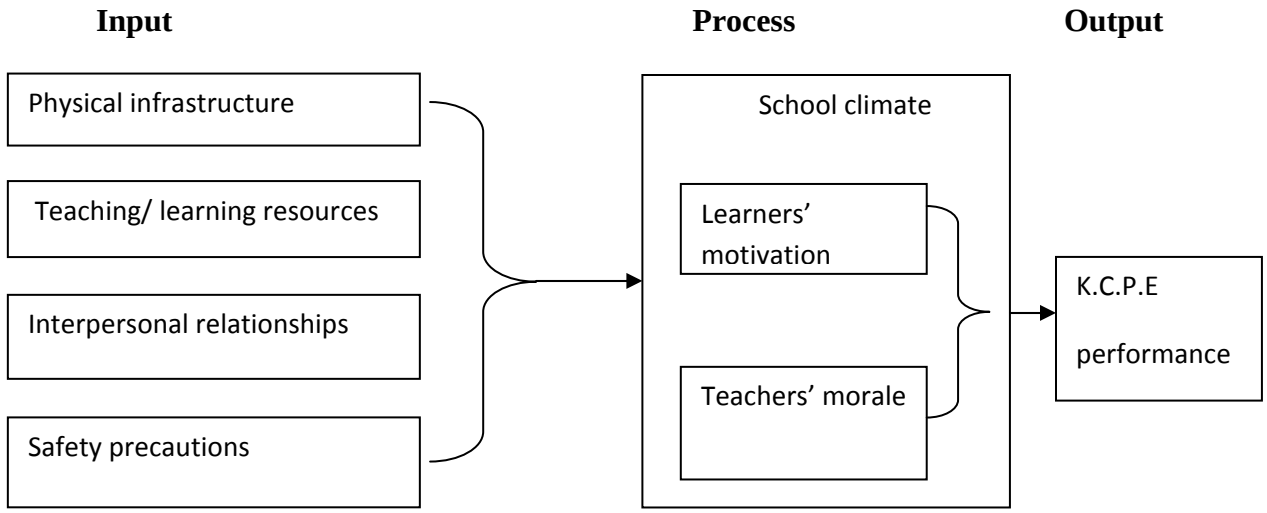


Figure 2.1 shows that in a school where there were physical infrastructure, teaching learning resources, interpersonal relationships and safety precautions, a school climate would be created. A school climate could either be conducive or unconducive depending on how the members perceived their work environment. If the climate was conducive, both teachers and learners

would be motivated and their morale would be higher thus encouraging them to work more and harder. Their academic performance would therefore be improved and this would finally lead to improving KCPE performance.

On the other hand, if the school climate was unconducive, teachers' morale and learners' motivation would be low and they would do very little academic work. This would lead teachers to not correcting the learners' work and not covering the syllabus. Learners also would not be motivated to work harder. Hence, there would be poor K.C.P.E. performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section outlines the methodology used in the study. The section is organized into the following sub-headings: research design, target population, sample and sampling procedure, research instruments, instrument validity, instrument reliability, data collection procedure and data analysis procedure.

3.2 Research design

Kothari (2012), asserts that research design is the arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

The study used correlational study design. According to Cohen and Manion (2010), correlational research establishes interrelationships among two or more variables. Since the study was aimed at establishing whether there was a relationship between the school climate and K.C.P.E performance, the design was found to be appropriate.

3.3 Target population

Mugenda and Mugenda (2003), define target population as an entire population of individuals, events or objects having common observable characteristics. The target population for this study consisted of 30, 457 pupils 871 teachers, 69 head teachers in 69 public primary schools in Central division of Machakos district, Kenya.

3.4 Sample and sampling procedure

According to Oso and Onen (2009), a sample is part of a target population that has been procedurally selected to represent it. A number of scholars have suggested various ways of arriving at a representative sample size. It is however, generally agreed that, the larger the sample the smaller the sampling error. Norman and Frankel (1996), for example, suggest that a sample of 10% of the population is adequate for a large population. Kothari (2012) asserts that strata are purposively formed and are usually based on past experiences and personal judgment of the researcher. Data regarding the schools was obtained from the DEO's office.

Stratified sampling was used to get the sample schools. The schools were stratified according to the zones which make up central division; Muvuti, Mumbuni and Mutituni. The sample schools were categorized according to 2012 KCPE performance. The schools were categorized as category A (top), category B (intermediate) and category C (low).Two schools from each category were randomly chosen. A sample population of 400 learners, 82 teachers and 18 head teachers in 18 schools represented 30, 457 learners, 871 teachers and 69 head teachers within 69 schools. A proportionate stratified method was used to get the sample size.

Kothari (2012) argues that in the method of proportional allocation, the sizes of the samples from the different strata are kept proportional to the sizes of the strata. Thus, if we wanted a sample of size n=30 to be drawn from a population of size N=8000 which is divided into three strata of size N_1= 4000, N_2 =2400, N_3=1600, we shall get the sample sizes as follows:

For N_1=4000, we have P_1 = 4000/8000 and hence n_1 = n.P_1 = 30(4000/8000) =15

N_2 =n.P_2 = 30(2400/8000) =9

N_3 =n. P_2 =30(1600/8000 =6

According to Wellman and Kruger (1999) cited in Coetzee (2005), no matter what size the population is, it is not necessary to use a sample size larger than 500 units for analysis. In this study, the sample size for the learners was n =400. For the three strata, the sample size was:

Muvuti zone - 400(3674/9186) =160

Mumbuni zone- 400(2953/9186) =129

Mutituni zone - 400(2559/9186) =111

The same formula was used to get the sample size of teachers whereby the sample size was n=100. All the respondents were 500.

Prior to the main study, a pilot study was carried out. Schools that were not to be studied in the main study were purposively selected. From the three zones, three schools, representing each category, were picked. This constituted 3 head teachers, 9 teachers and 30 learners. Thus, in every school the respondents were one head teacher, three teachers and ten learners.

3.5 Research Instruments

Data pertaining to school climate in public primary schools in Central division Machakos District of Machakos County was gathered by use of questionnaires and an observation schedule. There was a questionnaire for head teachers and another one for teachers and pupils. The observation schedule was filled by the researcher.

The questionnaire of the learners and the teachers had three parts. Part (a) was designed to elicit responses of respondents' age. Part (b) was designed in line with Likert's rating method of attitude measurement. The statements, which formed a scale of opinion, were presented in a way that would permit a judgment of value. On the right side of the questionnaire, this study used a 4-point scale scored as: Strongly Agree_4, Agree_3, Disagree_2, Strongly disagree_ 1. To quantify the extent of the attitude and perception of the condition of their school as by then, the highest score (4) reflected high attitudes and perception running on a continuum to (1) of the lowest score. A respondent's view was assumed to be reflected by the score he / she received over all items. On the left hand side of the questionnaire, this study used a 4-point scale scored as: No change required-4, Slight improvement needed-3, Much improvement needed-2, Urgent or immediate improvement needed-1. Part (c) consisted of a space for comments on how the school could be improved.

The head teachers' questionnaire consisted of part (a) and (b). Part (a) was intended to elicit the head teacher's background information while part (b) was intended to elicit information concerning the research objectives. The observation schedule which consisted of questions regarding school infrastructure, was filled by the researcher and comments made.

3.5.1 Instrument validity

Validity, according to Borg and Gall (1996), is the degree to which a test measures what it purports to measure. Since the instruments to be used were questionnaires, content validity was determined. A study was carried out in three schools that could not be involved in the final study. After the questionnaires had been filled, the researcher identified questions that were inadequate for measuring the variables. These questions were modified in order to improve the quality of the instrument thus increasing its validity.

3.5.2 Instrument reliability

Borg and Gall (1989) define reliability as the degree to which items within a test relate to each other. There are three major ways of estimating reliability: the test-retest method, the parallel-forms technique, and the split-half method (Nachmias and Nachmias, 1981).This study employed the split-half method. According to Macmillan and Schumacher (2007), the researcher administered the instrument to an appropriate sample of the respondents. It was then split into two subsets by placing all odd numbered items in one subset and the even numbered items in another. The scores of the two subsets were computed for each individual separately, and the two sets of scores were correlated.

3.6 Data collection procedure

The researcher obtained a permit from National Council of Science, Technology and Innovation. The permit was presented to the District Education Officer and the Deputy County

Commissioner, Machakos District, in Machakos County before embarking on the research project.

The instruments were administered in two stages; the pilot study and the main study. The researcher visited the selected public primary schools for piloting and administered the instruments to the respondents personally. The learners' questionnaires were filled and collected on the same day to avoid loss but the teachers' questionnaires were collected after one day. This period was necessary in order to give the respondents (teachers and head teachers) ample time to complete the questionnaires and to collect them before they were misplaced. When collecting the teachers' questionnaires, the researcher filled the observation schedules.

3.7 Data analysis techniques

Data collected from the respondents was checked for completeness. Questionnaires that were not filled were not included in the analysis. For quantitative analysis, all closed-ended questions were coded and checked for completeness. Data was then entered in the Statistical Package for Social Sciences (SPSS) software after which it was analyzed. For qualitative analysis, open - ended items were extracted and assigned to categories as per the research objectives.

Since the research was highly quantitative, the researcher made most of the inferences from graphs, pie charts and tables. The data was then described numerically and finally graphing was done and displayed in tables, pie charts and bar charts.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.1Introduction

This chapter presents information of the study population, the analysis of the findings of the study, discussion of the findings and the suggestions of the respondents. Category A schools represent well performing schools, category B schools represent average schools, and category C schools represent below average schools.

4.2 Instrument response rate

Questionnaires were used to collect the study population of the respondents. The results are shown in Table 4.1

Table 4.1 Questionnaire return rate

	Sample targeted	**Number collected**	**Percentage return rate**
Head teachers	18	18	100%
Teachers	82	80	97.56%
Learners	400	388	95.25%
Total	**500**	**486**	**97.2%**

As shown in table 4.1, the study targeted a total of 500 respondents. The head teachers had 100% return rate and the total questionnaire return rate was 97.2%.

4.3 Demographic distribution of respondents

The background information on gender, age, educational level, teaching experience and period of stay in a work station for head teachers was analyzed and results presented in tables and charts.

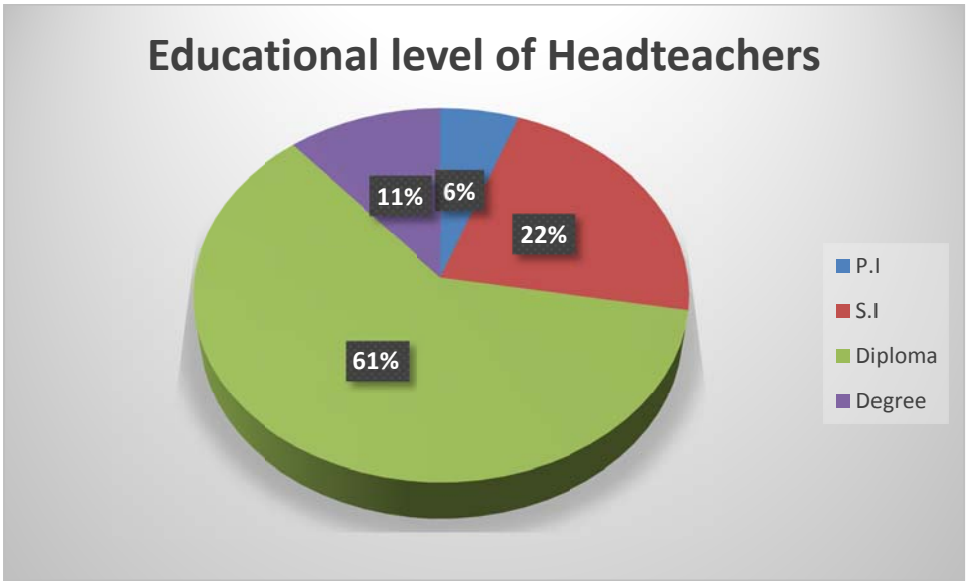
Table 4.2 Gender representation of headteachers

Gender	Frequency	Percent
Male	13	72.22 %
Female	5	27.78%
Total	**18**	**100.00%**

As shown in table 4.2, gender representation was captured and this confirmed that the male head teachers were 72.22%. Although the male head teachers were far more than the female head teachers, views from both genders are represented. The high numbers of male head teachers than female can be attributed to marginalization of women in leadership and education which was normal in the past years in our country Kenya. This however has been addressed in our new constitution which requires all position be gender sensitive.

Fig. 4.1 Educational level of headteachers

The head teachers had different levels of education as shown in figure 4.1.



As shown in fig. 4.1, all headteachers are educated. 61% of the headteachers are diploma certificate holders. This can be attributed to the desire of many P1 teachers to get higher education and the availability of institutions offering diploma education to teachers during school holidays. It could therefore be suggested that the headteachers were well educated and could create conducive climate in their schools.

Fig. 4.2 Age of headteachers

Head teachers were of different ages as shown in fig.4.2.

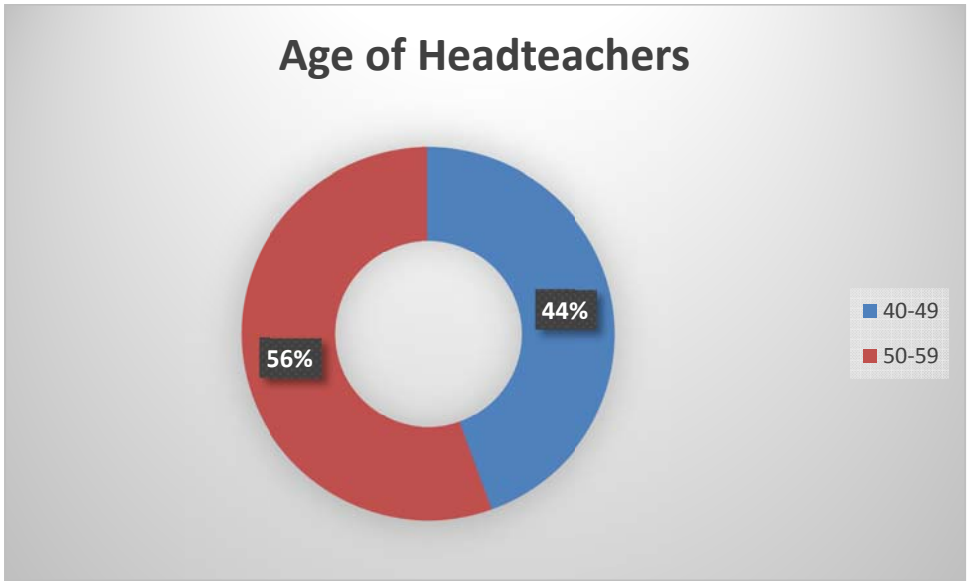
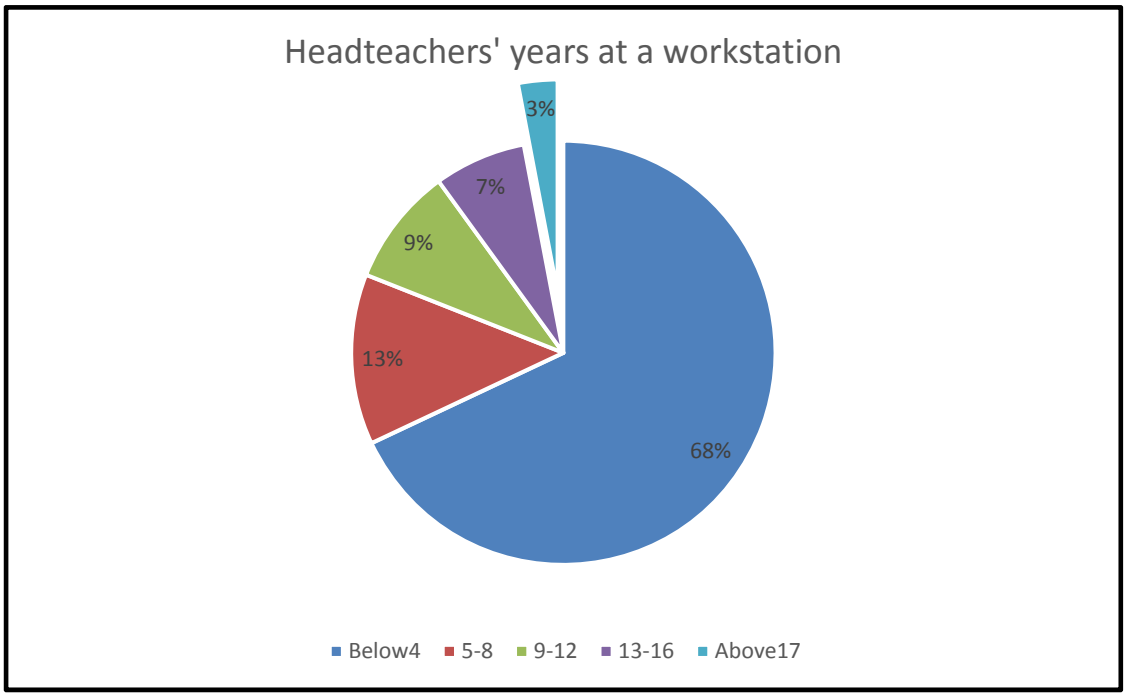


Fig. 4.2 shows that 56% of the head teachers are of the age group of 50-59 years . It could therefore be suggested that they had enough experience in teaching and they could administer the necessary administrative skills that they had acquired with age in order to create conducive climates at their work places.

Fig.4.3 Headteachers' years in a work station

Headteachers worked for a period of years in their work stations as shown in fig.4.3.



As shown in figure 4.3, 68% of the headteachers had worked in a station for less than four years. Once a headteacher worked in a station for some period of time, he/she could create a climate that could be either conducive or unconducive. It is therefore suggested that the headteachers were responsible to create school climates that could affect academic performance of the pupils either positively or negatively.

Table 4.3central division sample schools KCPE performance

School	2006	2007	2008	2009	2010	2011	2012	Average
Machakos pri.	312.31	327.57	340.28	339.92	329.92	319.12	316.00	326.45
Baptist Pri.	282.00	292.33	292.8	288.73	292.26	295.44	301.62	292.17
Mikuini Pri.	224.35	218.76	256.01	214.00	179.31	166.37	218.25	211.01
Kitulu Pri.	226.14	205.96	190.67	233.37	179.44	180.60	225.08	205.89
Kiima-kimwe Pri.	195.71	213.32	217.75	202.24	161.9	194.14	169.8	193.55
Kyeni Pri.	290.33	262.54	192.28	201.80	192.48	196.77	189.1	217.9
Kyumba Pri.	221.04	210.14	228.77	220.42	215.75	238.04	279.65	230.54
Misakwani Pri.	267.00	241.76	292.47	261.72	253.21	301.95	259.47	268.23
Mungala Pri.	206.7	209.83	220.74	228.40	208.03	207.56	228.6	215.69
Kitanga	266.83	223.07	205.07	182.45	176.29	201.25	220.57	210.79
Katheka-kai Pri.	191.87	209.35	195.42	184.15	184.85	200.99	196.34	194.71
Kyemutheke Pri.	242.00	197.19	208.20	226.41	213.57	200.81	196.77	212.14
Kyasila Pri.	235.7	207.61	248.23	264.08	267.31	248.65	255.04	246.66
Ngomeni	223.97	185.76	178.54	200.10	214.25	152.55	242.38	199.65
Kyanda Pri	235.09	232.47	255.72	241.31	248.36	260.19	241.65	244.97
Metuma Pri	259.26	226.83	232.59	227.50	266.87	218.42	222.35	236.26
Kamuthanga Pri.	212.12	203.49	222.31	211.20	203.99	207.85	194.31	207.89
Mua Farm Pri.	215.53	190.54	220.58	204.77	217.38	212.11	192.1	207.57

Table 4.3 shows how learners of the sampled schools have performed at KCPE since 2006-2012. The schools' performance is not consistent but Machakos primary school has consistently scored a mean score of 310 marks and above. Likewise, there is no school that has consistently scored a mean score of less than 200 marks.

Table 4.4 Category A(Well Performing) Schools

School	2006	2007	2008	2009	2010	2011	2012	Average
Machakos Pri.	312.31	327.57	340.28	339.92	329.92	319.12	316.00	326.45
Baptist Pri.	282.00	292.33	292.80	288.73	292.26	295.44	301.62	292.17
Kyumba Pri.	221.04	210.14	228.77	220.42	215.75	238.04	279.65	230.54
Misakwani Pri.	267.00	241.76	292.47	261.72	253.21	301.95	259.47	268.23
Kyasila Pri.	235.70	207.61	248.23	264.08	267.31	248.65	255.04	246.66
Kyanda Pri.	235.09	232.47	255.72	241.31	248.36	260.19	241.65	244.97

Table 4.5 shows how learners of category A (well performing) schools from the three zones of Central division have performed at KCPE since 2006-2012. It can be observed that all the schools had an average mean score of above 230 marks.

Table 4.5 Category B(Average Performing) Schools

School	2006	2007	2008	2009	2010	2011	2012	average
Mikuini Pri.	224.35	218.76	256.01	214.00	179.31	166.37	218.25	211.01
Kitulu Pri.	226.14	205.96	190.67	233.37	179.44	180.60	225.08	205.89
Mungala Pri.	206.70	209.83	220.74	228.40	208.03	207.56	228.6	215.69
Kitanga Pri.	266.83	223.07	205.07	182.45	176.29	201.25	220.57	210.79
Kamuthanga Pri.	212.12	203.49	222.31	211.2	203.99	207.85	194.31	207.89
Metuma Pri	259.26	226.83	232.59	227.50	266.87	218.42	222.35	236.260

Table 4.6 shows how learners of category B (average) schools from the three zones of Central division have performed at KCPE since 2006-2012. It can be observed that all the schools have an average mean score of above 205 marks.

Table 4.6 Category C (Low Performing) Schools

School	2006	2007	2008	2009	2010	2011	2012	average
Kiima-kimwe Pri.	195.71	213.32	217.75	202.24	161.90	194.14	169.80	193.55
Kyeni Pri.	290.33	262.54	192.28	201.80	192.48	196.77	189.10	217.90
Katheka-kai Pri.	191.87	209.35	195.42	184.15	184.85	200.99	196.34	194.71
Kyemutheke Pri.	242.00	197.19	208.20	226.41	213.57	200.81	196.77	212.13
Mua Farm Pri.	215.53	190.54	220.58	204.77	217.38	212.11	192.10	207.57
Ngomeni	223.97	185.76	178.54	200.1	214.25	152.55	242.38	199.65

Table 4.7 shows how learners of category C (below average) schools from the three zones of Central division have performed at KCPE since 2006-2012. It can be observed that almost all the schools have an average mean score of below 200 marks.

From the above analyses, it can be suggested that learners of category A schools performed better than learners of category B(average) schools. Likewise, learners of category B schools performed better than learners of category C (below average) schools. The study sought to find out factors that may be contributing to the various diverse performances.

4.4 Influence of school infrastructure on academic performance

Research question one sought information on influence of school infrastructure and academic performance. The items tested for objective one on the questionnaire are items 1-10. To establish its influence, the researcher highlighted on adequacy of sports fields, availability of electricity, condition of walls, furniture, toilets, cleanliness and orderliness of the school, classroom doors and availability of clean water. Data on these items is presented in figures 4.4 to 4.8.

Fig.4.4 School infrastructure as perceived by well performing school respondents

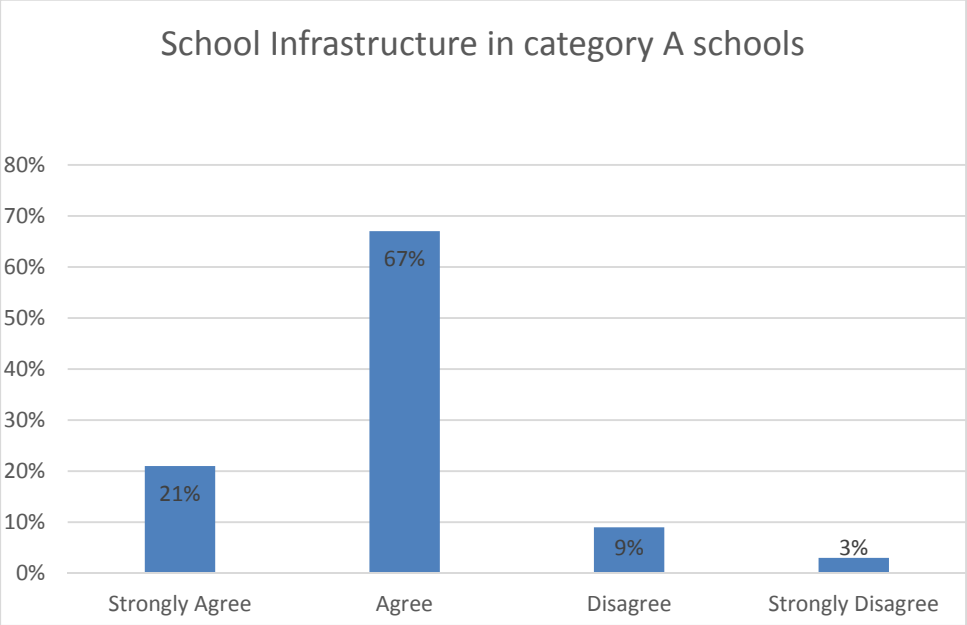
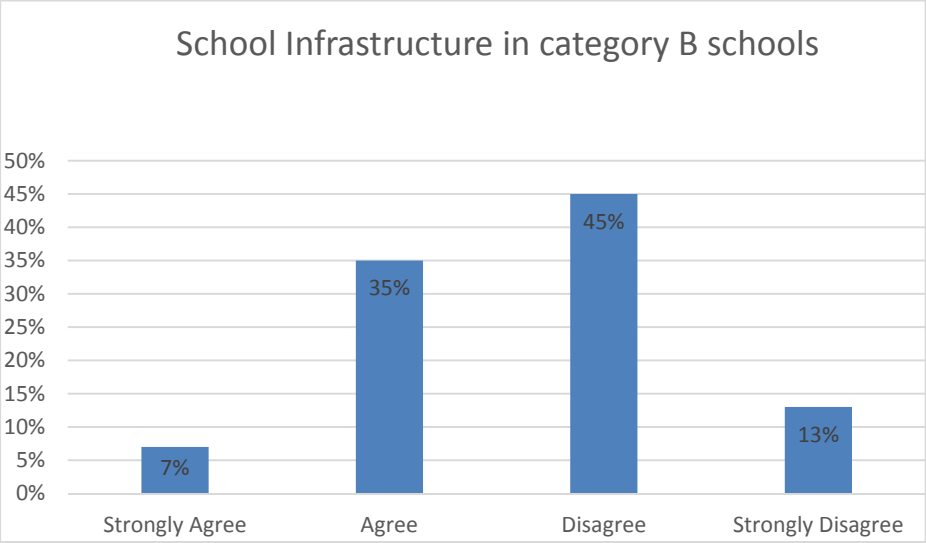


Fig.4.4 shows that 88% of the respondents of well performing schools perceived that their schools had adequate school infrastructure. Although 12% of the respondents were dissatisfied with their school infrastructure, the majority perceived that they had adequate sports fields, there was electricity, few walls had cracks, some roofs leaked, classrooms were painted, and toilets were in good condition, compounds were clean and orderly, classroom doors were lockable, and

there was clean water. Because they perceived their schools positively, their perception might have positively influenced academic performance and finally KCPE performance.

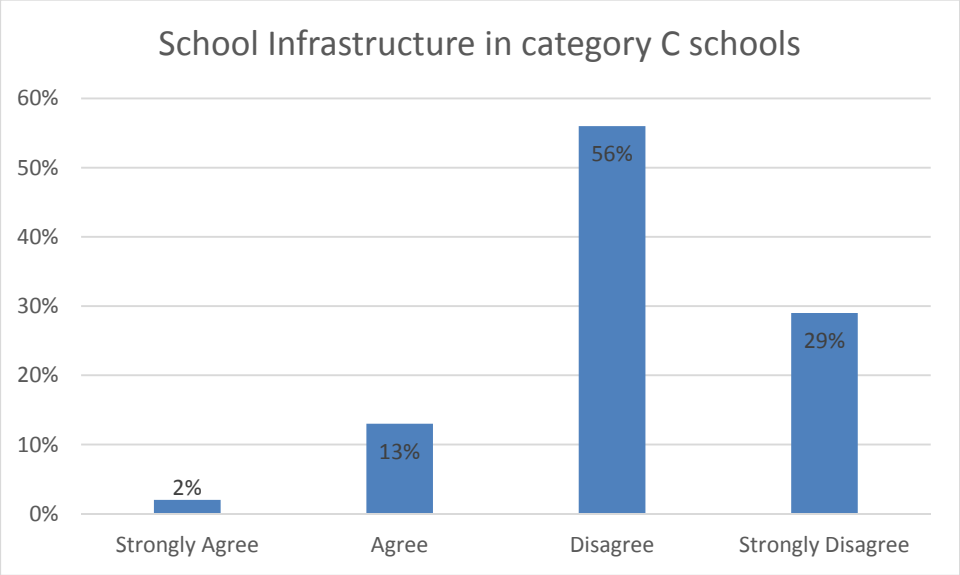
Fig.4.5 School infrastructure as perceived by average school respondents



As shown in fig.4.5, 58% of the respondents disagreed with the fact that most of their school infrastructure items tested were favorable. The respondents were dissatisfied with their school infrastructure, the majority perceived that they didn't have adequate sports fields, there was no electricity, walls had cracks, some roofs leaked, classrooms were not painted, toilets were not in good condition, compounds were not clean and orderly, classroom doors were un lockable , and there was no clean water. Because they perceived their schools averagely, their perception might have influenced academic performance and finally KCPE performance.

Fig.4.6 School infrastructure as perceived by below average school respondents

Category C school respondents perceived their school infrastructure items tested as shown in fig. 4.6.



As shown in fig. 4.6, only 15% of category C school respondents perceived items of their school infrastructure to be satisfying. 85% of the respondents were dissatisfied with their school infrastructure, they perceived that they didn't have adequate sports fields, there was no electricity, walls had cracks, some roofs leaked, classrooms were not painted, toilets were not in good condition, compounds were not clean and orderly, classroom doors were un lockable , and there was no clean water. Because they perceived their schools negatively, their perception might have adversely influenced academic performance and finally KCPE performance.

From the above analyses, category A school respondents perceived most of their infrastructure items tested to be adequate. Category B school respondents perceived items of their school infrastructure to be inadequate since slightly more than half of them were dissatisfied with their school infrastructure. Most category C school respondents perceived most items of their infrastructure to be inadequate and this might have adversely influenced their academic performance and finally KCPE performance.

4.5 Preferred school infrastructure as perceived by school respondents

All school categories preferred that some changes were needed for the items tested so that their school climates would be improved. The changes would be: No change required, slight improvement required, much improvement required or urgent improvement required. Table 4.3 shows the preferred situation of category A, B and C school respondents.

Table 4.7 Preferred school infrastructure

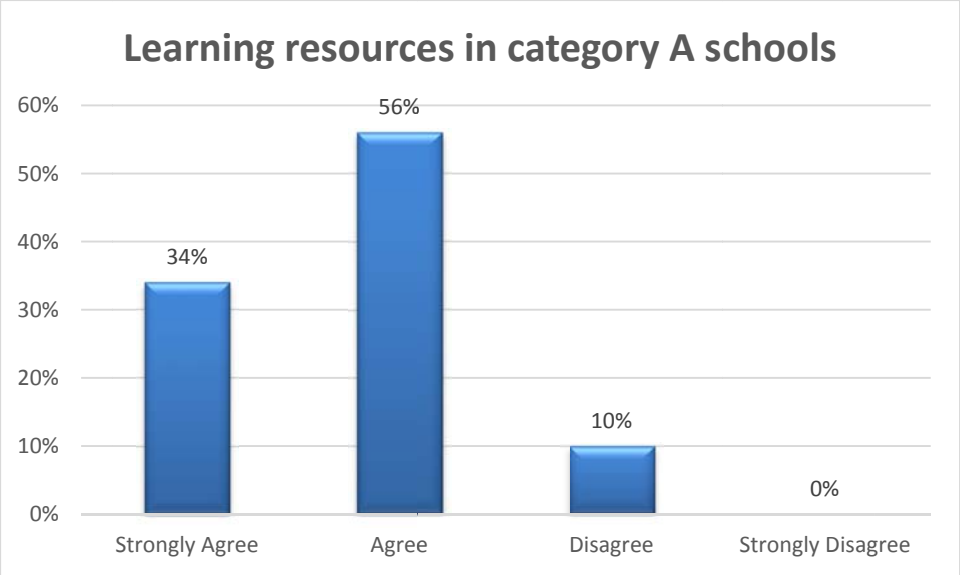
Change Required	Preferred School Infrastructure		
	Category A	Category B	Category C
No Change Required	71%	11%	3%
Slight Improvement Required	27%	23%	11%
Much Improvement Required	2%	57%	33%
Urgent Improvements Needed	0%	9%	53%

As shown in table 4.3, 71% of category A school respondents preferred that there was no change required in the items tested. 57% of Category B school respondents preferred that much improvement was required in their schools. 88% of category C school respondents preferred that much to urgent improvement was required. From the analysis it can be said that the state of the school infrastructure positively influenced academic performance and finally KCPE performance because category A school respondents perceived that their school infrastructure was adequate and they equally performed well. Likewise, category B school respondents performed averagely, and most of the category C school respondents performed lowly; the way they perceived that their infrastructure needed much to urgent improvement.

4.6 Teaching / learning resources and academic achievement

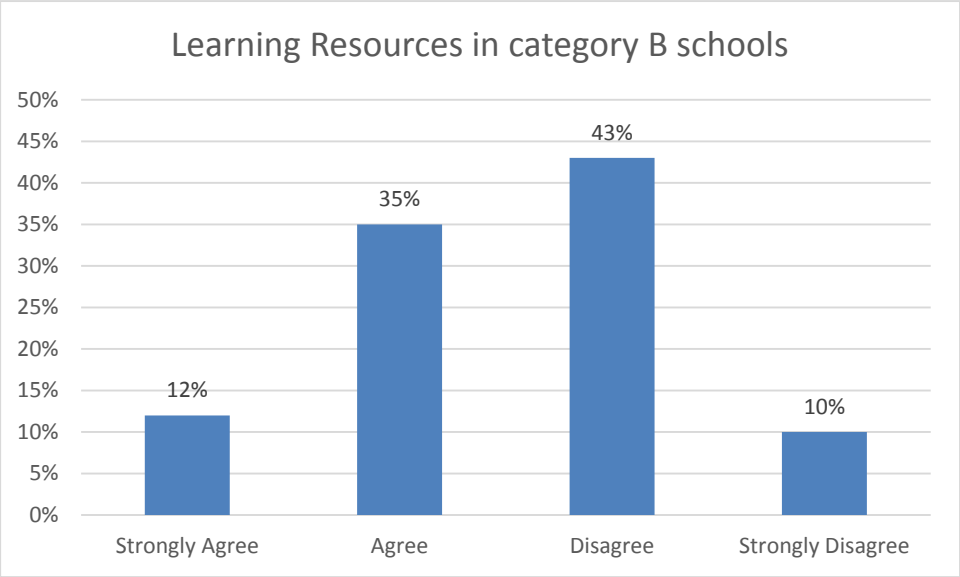
The second research question sought information on influence of teaching/learning resources and academic performance. The items tested for research question two on the questionnaire are items 11-20; The researcher highlighted on availability of enough teachers, textbooks which are in good condition, well painted chalkboards, classrooms which had chairs and tables for teachers, cupboards for keeping books, a duster, a library, an extra room for private studies, and a good learning environment. Data on these items is presented on figures 4.7 to 4.9.

Fig.4.7 Teaching/learning resources as perceived by well performing school respondents



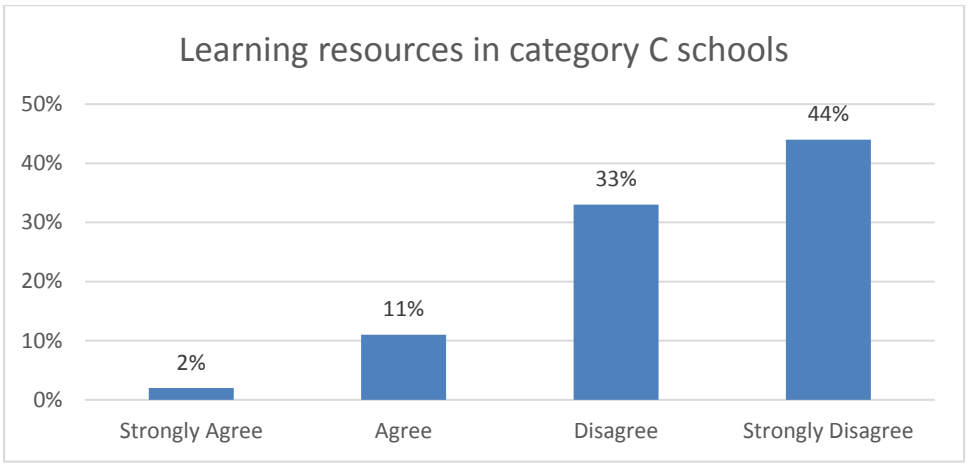
As shown in fig.4.7, 90% respondents of well performing schools were satisfied with the existing situations of their teaching/learning resources. They felt that there were enough teachers, there were enough textbooks, and the books were in good condition, chalkboards were painted, classrooms had chairs and tables for teachers, there were cupboards for keeping books, there were dusters, extra rooms and good learning environments. However, 10% of the respondents were dissatisfied with the teaching/learning resource items tested. This is a positive indication as to why learners in category A schools performed relatively well at KCPE.

Fig. 4.8 Teaching /learning resources as perceived by average school respondents



As shown in fig. 4.8, 53% respondents of category B schools perceived most of the teaching/learning resource items to be inadequate. The perceptions of the respondents were split between those who were relatively satisfied and those who were not. But it is worth noting that majority of the students were dissatisfied with the tested items. This is a clear indication that the way they perceived their teaching/learning materials might have influenced their academic performance and finally KCPE performance.

Fig. 4.9 Teaching /learning resources as perceived by below average school respondents



As shown in fig.4.9, only 13% of category C school respondents perceived their schools to have adequate teaching/learning resources. The majority of the respondents perceived their schools to have had inadequate teaching/learning resources and this might have influenced their academic performance and finally KCPE performance.

From the above analyses of teaching/ learning resource items, it could be concluded that respondents of category A schools were more satisfied with teaching/learning resource items of their schools, followed by category B school respondents, and lastly category C school respondents and this might have influenced their academic performance and finally KCPE performance respectively.

Table 4.8 Preferred teaching/learning resources

Changes Required	Preferred Teaching/Learning Resources		
	Schools A	Schools B	Schools C
No Change Required	77%	17%	1%
Slight Improvement Required	17%	23%	9%
Much Improvement Required	5%	55%	13%
Urgent Improvements Needed	1%	5%	77%

All school categories preferred that some changes were needed for the teaching/learning resource items tested so that their school climates would be improved. The changes would be: No change required, slight improvement required, much improvement required or urgent improvement required. Table 4.5 shows the preferred situation of category A, B and C school respondents.

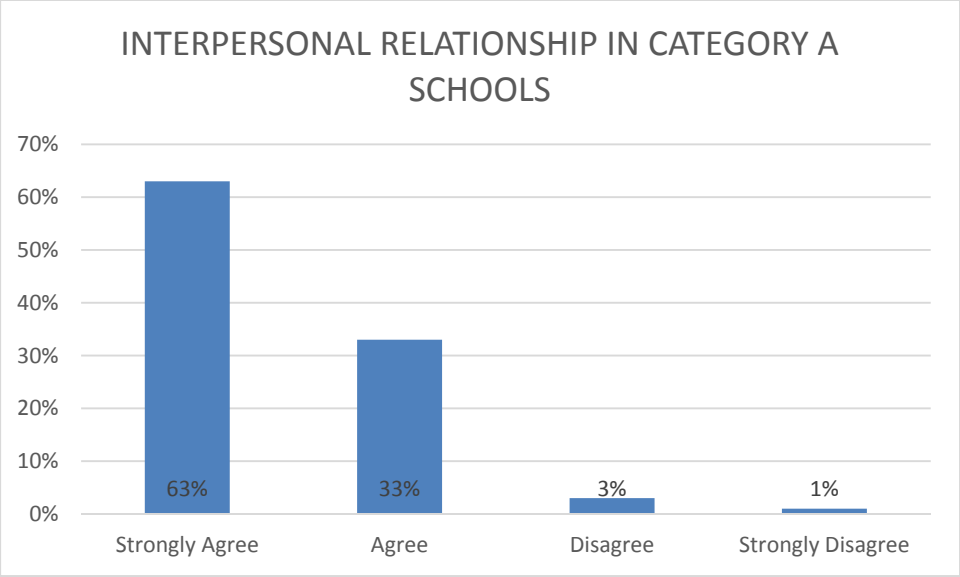
As shown on table 4.5, 77% of category A school respondents perceived that situations of their teaching/learning resources needed no change. 55% of category B school respondents perceived that their teaching/learning resources required much improvement.77% of category C school respondents perceived that their teaching/learning resources needed urgent improvement.

Because category A school respondents perceived that their teaching/learning items were adequate and they equally performed well compared to category B and C school respondents, it can be deduced that adequacy of teaching /learning materials influences academic performance and finally KCPE performance.

4.7 Interpersonal relationships and academic performance

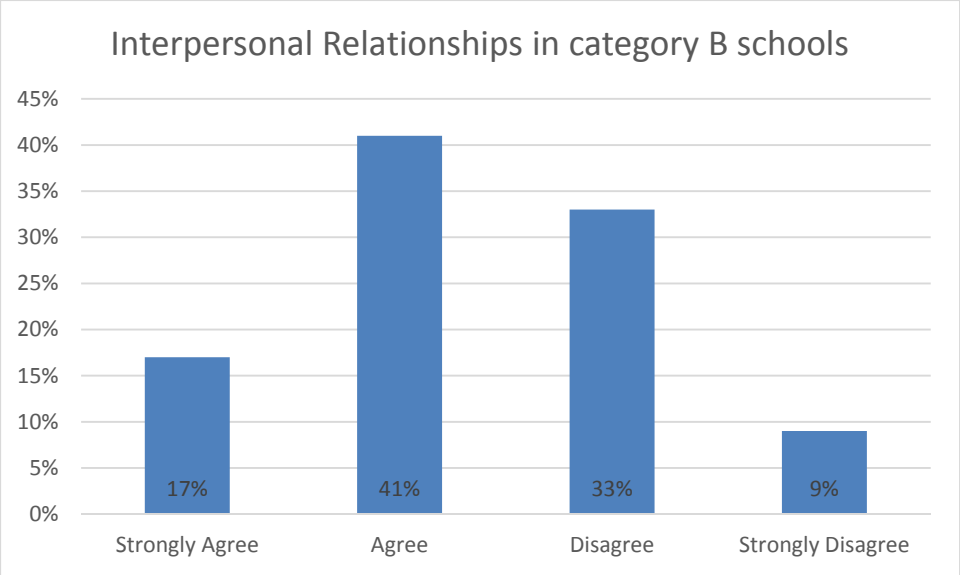
Research question three sought information on influence of interpersonal relationships on academic performance. To establish the influence, the researcher highlighted on (item no.21-30) on the questionnaire: whether learners respected teachers, teachers were friendly to learners, learners feared teachers, teachers provided basic needs to needy learners, learners stole teachers' properties, learners cheated teachers, learners talked when in class, strict discipline was needed to control learners, learners feared asking for homework, and whether learners were sometimes punished. Data on these items is presented on figures 4.10 to 4.12.

Fig.4.10 Interpersonal relationships as perceived by well performing school respondents



As shown in fig. 4.10, 99% respondents of category A schools agreed that learners feared teachers, some learners stole teachers' properties, some learners did not talk in class, strict discipline was needed, learners feared asking for home work , and learners were punished. Therefore, the respondents were dissatisfied with their interpersonal relationships. This might have adversely influenced academic performance and finally KCPE performance.

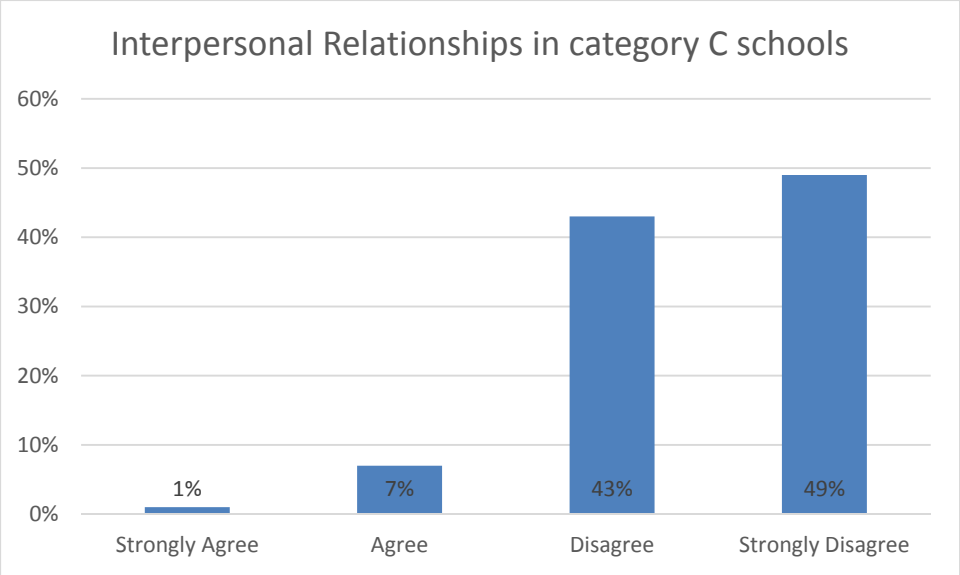
Fig.4.11 Interpersonal relationships as perceived by average school respondents



As shown in fig.4. 11, 58% of category B school respondents perceived most of the interpersonal relationship items tested to be dissatisfying. They disagreed that learners in their schools respected teachers, teachers were friendly to learners, and teachers provided basic needs for needy learners. This might have adversely influenced academic performance and finally KCPE performance.

From the above analyses, the items tested for interpersonal relationships in all categories indicated that respondents were dissatisfied with most of the items tested for interpersonal relationships. This condition might have adversely influenced academic performance and finally KCPE performance.

Fig. 4.12 Interpersonal relationships as perceived by below average school respondents



As shown in fig. 4.12, only 8%% of below average schools perceived their interpersonal relationship items to be satisfying since 92% of them strongly disagreed that learners in their schools respected teachers, teachers were friendly to learners, and teachers provided basic needs for needy learners. This might have adversely influenced academic performance and finally KCPE performance.

From the above analyses, the items tested for interpersonal relationships in all categories indicated that respondents were dissatisfied with most of the items tested for interpersonal relationships. This condition might have adversely influenced academic performance and finally KCPE performance.

Table 4.9 Preferred interpersonal relationships

Change Required	Preferred Interpersonal Relationships		
	Category A	Category B	Category C
No Change Required	18%	27%	11%
Slight Improvement Required	27%	23%	16%
Much Improvement Required	51%	38%	38%
Urgent Improvements Needed	4%	12%	45%

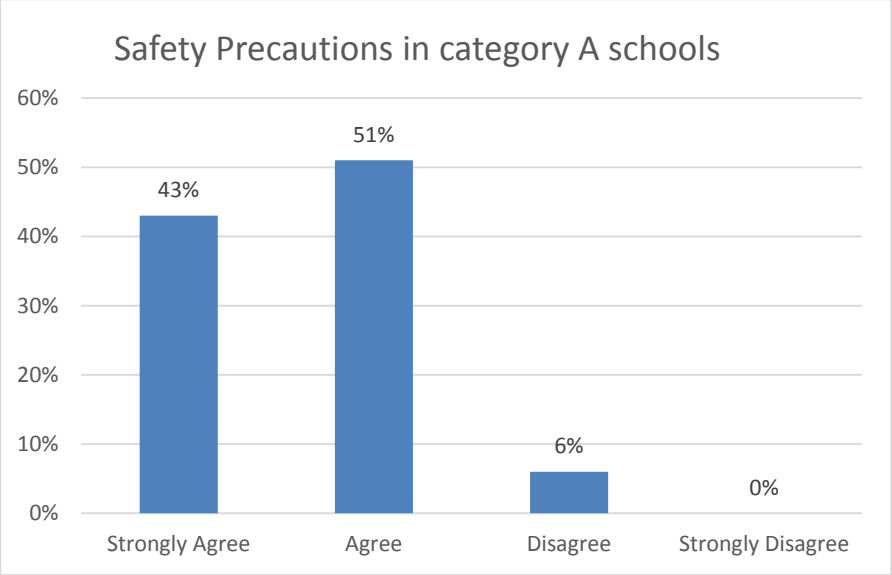
All school categories preferred that some changes were needed for the interpersonal relationship items tested so that their school climates would be improved. The changes would be: No change required, slight improvement required, much improvement required or urgent improvement required. Table 4.6 shows the preferred situation of category A, B and C school respondents.

As shown in table 4.6, 55% of category A school respondents perceived that much and urgent improvement was needed to improve their interpersonal relationships. 50% of category B school respondents perceived that much and urgent improvement was needed. 83% of category C schools perceived that much and urgent improvement was needed to improve their interpersonal relationships.

4.8 Influence of safety precautions on academic performance

Research question four sought information on influence of safety measures put in place and academic performance. The researcher highlighted on Items 31-40 on the questionnaire; whether a school had a fence, a gate, first aiders, a first aid kit, a guard, a fire extinguisher, a suggestion box, had meals together, members felt safe at school, and whether they were sure of success. Data on these items is presented in figures 4.13 to 4.15.

Fig. 4.13 Safety precautions as perceived by well performing school respondents



As shown in fig.4.13, 94% of category A school respondents perceived most of their safety precaution items to be adequate. This might have positively influenced their academic achievement and finally K.C.P.E performance.

Fig 4.14 Safety precautions as perceived by average school respondents

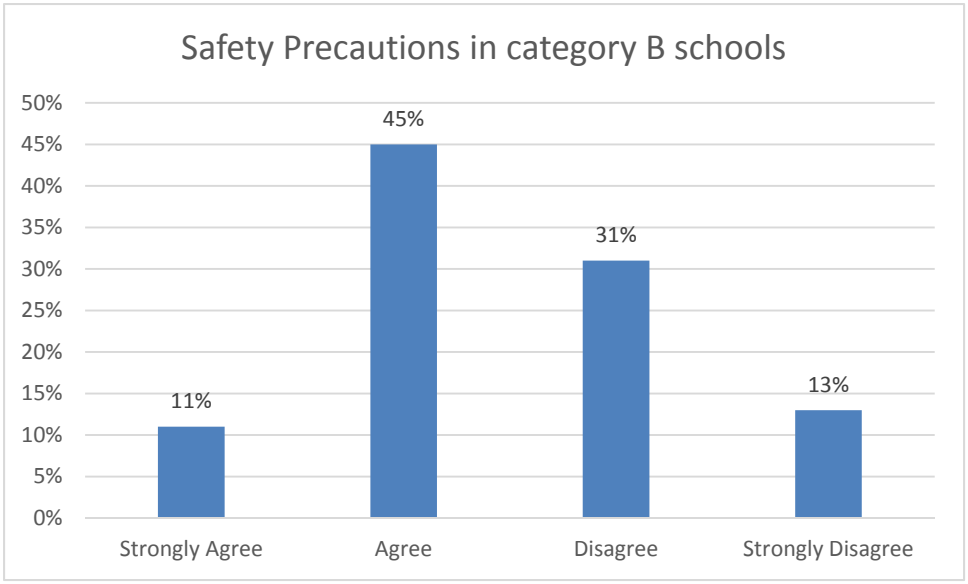


Fig.4.14 shows that 56% of the respondents of category B schools perceived the items of safety precautions as favourable. This might have influenced their KCPE performance.

Fig.4.15 Safety precautions as perceived by below average school respondents

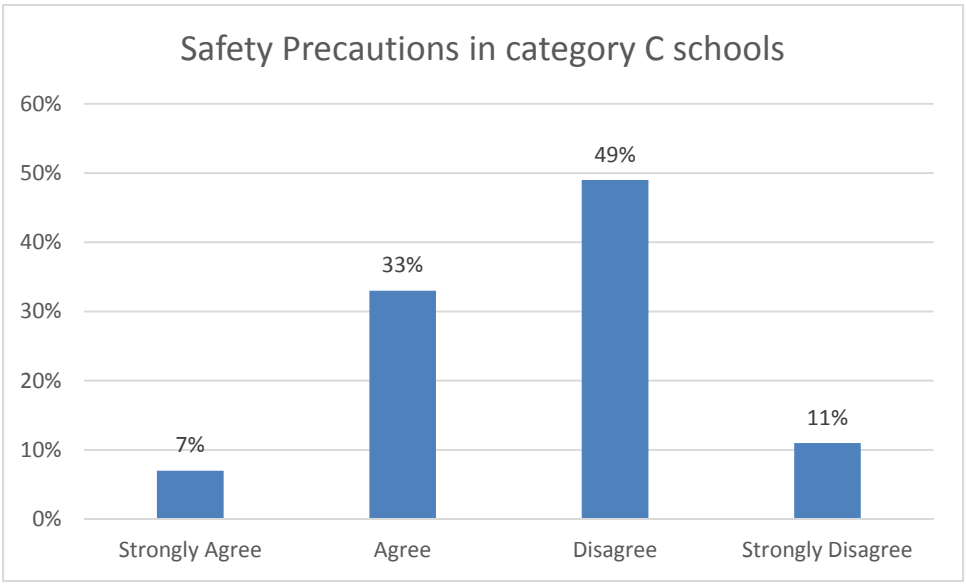


Fig. 4.15 shows that 40% of the respondents of category C schools perceived items tested for safety precautions to be satisfying while 6% are dissatisfied. This might have adversely influenced academic achievement and finally KCPE performance.

Table 4.10 preferred safety precautions

Changes Required	Preferred Safety Precautions		
	category A	category B	category C
No Change Required	63%	13%	7%
Slight Improvement Required	23%	21%	23%
Much Improvement Required	14%	51%	34%
Urgent Improvements Needed	0%	5%	36%

From the above figure analyses, 63% respondents of well performing schools were satisfied with items of their safety precautions. 51% of average school respondents preferred their safety precautions required much improvement. 90% of below average school respondents needed much to urgent changes done. It can therefore be said that safety precautions influence academic achievement and KCPE performance since most Category A school respondents perceived that they didn't need changes of their safety precautions and they performed better in KCPE than category B and C respectively.

4.9 Headteachers' suggestions on academic improvement

Headteacher respondents had the following challenges which they perceived to be hindering academic and KCPE performance: They perceived understaffing to be a major challenge in most schools. They lacked enough textbooks, wall charts and manila papers. Most learners lacked basic needs like uniforms, food and stationery. Some parents had a negative attitude toward education therefore they did not value supporting their children acquire education. Some parents are semi-illiterate therefore they did not value their children's education. Learners lack role models and there is a high rate of drop-outs due to early pregnancies, marriages or child labor.

4.10 Teachers' suggestions on academic improvements

Teacher respondents had the following views on how they would like their schools to be improved: They perceived that their schools should be equipped with teaching /learning materials such as radios for broadcast lessons, wall charts, and manila papers. Some classrooms needed to be renovated so that they can be teacher/learner friendly. There was need for piped water. Rooms for storing teaching/learning materials needed to be constructed. There should be rapport between teachers and learners. Teachers and pupils should organize trips and feeding programmes in order to break the fear that exists between teachers and learners. The school community should be involved in school activities so that the learners, parents and teachers can interact. Teachers and pupils should be involved in co-curricular activities in order to break class monotony and enhance interaction. Teachers and pupils needed to be encouraged to relate well

because some teachers look down upon learners. Unity and cooperation among the school members should be enhanced for better academic performance.

4.11 Learners' suggestions on school improvements

Most learner respondents had problems in writing their views. However, the few who wrote had the following views on how they would like their schools to be improved: They suggested that they preferred that their schools should have a library, a fire extinguisher and doors which are lockable. They needed more learning materials such as text books and story books. Some classrooms had pot holes on the floors and they wanted them repaired. The kitchens should be kept clean and tidy. They suggested that text books were very few and exercise books were not well supplied. Some pupils suggested that abusive languages were used in the schools and some class monitors did not relate well with the other pupils.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter explains the summary, conclusion and recommendation of the study findings and the extent to which the research objectives have been achieved. The study focused on the influence of school climate on pupils' performance at KCPE in public primary schools in Central Division of Machakos District, Kenya.

5.2 Summary of the study

The study sought to investigate the influence of school climate on pupils performance at KCPE in public primary schools in Central Division of Machakos District, Kenya.The study used correlational study design which targetted a total population of 31,397 respondents in 69 public primary schools of whom 69 were head teachers, 30,457 were pupils and 871 were teachers. The sample schools were selected through stratified sampling whereby the three zones, Muvuti, Mutituni and Mumbuni, which make up Central Division were represented. Schools were categorized into three categories according to 2012 KCPE performance. This study was representative in terms of age, gender and educational level.

5.3 Summary of the study findings

The first objective of the study sought to determine the influence of school infrastracture and academic performance at KCPE. 71% of well performing school respondents perceived that their school infrastructrure needed no improvement, 57% of average school respondents

perceived that their school infrastracture items needed much improvent , and 53% of below average school respondents perceived that their schools needed urgent improvement.The results revealed that shool infrastracture may influence academic performance since learners of category A schools performed better at KCPE than category B and C respectively. However, 62% of all the respondents perceived their infrastracture needed much improvement.

The second objective of the study sought to establish how teaching /learning resources influenced KCPE performance.The study revealed that adequate teaching /learning materials may influence academic performance at KCPE.

The third objective sought to establish the extent to which interpersonal relationships in a school influenced KCPE performance. The study revealed that respondents of category B and C schools perceived almost all the items tested to be dissatisfying. However, category A respondents perceived most of the items tested to be satisfying. Because category A school respondents performed better than the other categories, it can then be deduced that interpersonal relationships may influence KCPE performance.

The fourth objective of the study sought to establish safety precautions in schools that influenced KCPE performance.The study revealed that respondents of category A(well performing) schools perceived items of safety precautions tested to be relatively satisfying compared to the other categories and they equally performed better at KCPE than them. The study therefore revealed that safety precautions in school may influence KCPE performance.

5.4 Conclusion

The research concluded that school climate may influence pupils'academic performance. However, not all items tested for school climate affect performance. For example, the first objective, that is influence of the state of school infrastructure and academic acheivement, some schools didn't have electricity,and some walls had cracks, but they performed well at 2012 KCPE.

For the teaching/ learning resources, some schools had no cupboards, chairs and tables in their classrooms, and no extra rooms for private studies but the learners performed well at KCPE.

For the third objective, that is, interpersonal relationships and academic peerformance, all tested items were necessary for academic performance and needed to be improved in all the schools. The study revealed that interpersonal relationships may influence KCPE performance. Head teachers were therefore to ensure that healthy and constructive interpersonal relationships are maintained at the school level in order to improve school climates. They should therefore create environments where all members are welcome, supported, and feel safe in school socially, emotionally, psychologically, intellectually and physically. (National School Climate Council 2009). Emma Wachira et al (2009) suggest that in a school, people should be as understanding towards other people as they would expect other people to be understanding towards them; relationships should be kept healthy and fruitful but not negative and destructive. Teachers and learners are responsible for keeping their relationships healthy.

For the fourth objective, safety precuations, there were some schools which did not have fences, no gates, no guards, no fire extinguishers, and no suggestion boxes but they performed well.

When learners and teachers feel socially and intellectually safe, they communicate freely both in and out of class resulting to answering and asking of questions. Learners also do not fear teachers. For any academic achievement to be realized, both learners and teachers should feel psychologically and socially safe. If those conditions are not met, then little teaching/learning will take place and this may adversely influence academic performance.

The study revealed that the headteacher's gender, age and educational level do not influence a school climate but period in a work station greatly influenced a school climate.

5.5 Recommedations

i. It is recommeded that all stakeholders should ensure that school infrastracture, teaching/ learning resources, and safety precaution should be improved so that pupils can perform well at KCPE.

ii. Headteachers should create healthy and constructive interpersonal relationships among school community members in order to improve KCPE perfomance.

5.6 Sugestion for futher research

The study recommends the following areas for futher research :

i. To find out other factors that may be indicators of school climate.

ii. To find out how head teachers influence school climate.

iii. To establish influence of school climate in well performing, average and low performing public and private primary schools in other counties in Kenya.

vi) To establish influence of school climate in well performing, average and low performing private primary schools in other counties in Kenya

vii) To establish influence of school climate in well performing, average and low performing public secondary schools in other counties in Kenya.

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APPENDICES

APPENDIX A

A Letter of introduction

Dear Sir/Madam,

RE: INFLUENCE OF SCHOOL CLIMATE ON PUPILS' PERFORMANCE AT KENYA CERTIFICATE OF PRIMARY EDUCATION IN PUBLIC PRIMARY SCHOOLS IN CENTRAL DIVISION OF MACHAKOS DISTRICT, KENYA.

I am a postgraduate student at the University of Nairobi in the Department of Educational Administration and Planning. I am undertaking a research on the above stated title to enable me complete my course.

I kindly request you for permission to collect data from you, your teachers, and pupils on the stated research title.

Your cooperation and contribution will be highly appreciated.

Thank you.

Yours faithfully,

NYAMOSI JOYCE MWANGO.

APPENDIX B

QUESTIONNAIRE FOR HEADTEACHERS

A: Background information:

1. How old are you?

   20-29years [ ] 30 -39 years [ ] 40-49 years [ ] 50-59 years [ ]

2. What is your sex?

   Male [ ] Female [ ]

B: General Questions

A: Please, answer the following questions:

1. How many years have you worked as a teacher? [ ]
2. How many years have you worked as a head teacher? [ ]
3. How many years have you worked in this school? [ ]
4. What is your highest educational level?

   P.I [ ] S.1 [ ] Diploma [ ] Degree [ ] Masters [ ]

   Any other (specify)

5. What was the mean score of this school in the following years?

   2009 [ ] 2010 [ ] 2011 [ ] 2012 [ ]

6. What are some of the challenges you face as a school head teacher in this school that may hinder academic performance?

   i)

   ii)

   iii)

   iv)

7. What improvements can be made to make people ‘’feel better’’ in this school as regards:

   i) School infrastructure:

   ii) Adequacy of teaching/learning resources:

   iii) Interpersonal relationships:

   iv) Safety:

APPENDIX C

A Questionnaire for Teachers and Learners

Your school has been selected to participate in a study that forms part of my Masters' Degree in Educational Administration and Planning at the University of Nairobi. This questionnaire has been designed in order to get your opinions and attitudes concerning your school, learners, teachers and yourself. Your responses are strictly anonymous and you'll not be asked to identify yourself at any time of the study. Kindly, answer all the questions as completely and honestly as you can.

I thank you in advance for your willingness to participate.

A: Background information:

1. How old are you?

10-19years [ ] 20-29 years [ ] 30-39years [ ] 40-49 years [ ] 50-59years [ ]

B: General Questions

The section to follow contains various statements about your school life. The column to your left indicates how you see the situation now, while the column on the right indicates how you would like the situation to be. Please, indicate your opinion or attitude with a tick (X) where appropriate as the example below shows:

Existing situation	Preferred situation
This is the situation in my school now	This is what I would like to see in my school

Strongly agree	Agree	Disagree	Strongly disagree		No change required	Slight improvement needed	Much improvement needed	Urgent improvement needed
	X			1. This school has adequate sports fields.				
				2. There is electricity in this school.				
				3.Some walls in this school have cracks.				
				4. Some roofs in this school leak.				
				5. There is enough furniture in this school.				
				6. The classroom walls are well painted.				
				7.The toilets in this school are in good condition.				
				8. The school compound is clean and orderly.				
				9. Some classroom doors in this school are unlockable.				
				10. There is clean water in this school.				
				11. This school has enough teachers.				
				12. There are enough textbooks in this school.				
				13. The textbooks are in a good condition.				
				14. The chalkboards in this school are well painted.				
				15. Our classroom has a chair and table for teachers.				
				16. Our classroom has a cupboard for keeping our books.				
				17. Our classroom has a duster.				
				18. This school has a library.				
				19. This school has extra rooms for private studies.				
				20.This school has a good learning environment.				
				21. Learners in this school respect teachers.				
				22.Teachers in this school are friendly to learners.				
				23. Some learners in this school fear teachers.				
				24. Teachers in this school provide basic needs to needy learners.				

Strongly agree	Agree	Disagree	Strongly disagree		No change required	Slight improvement needed	Much improvement needed	Urgent improvement needed
				25. Some learners steal teachers' properties.				
				26. Some learners in this school cheat teachers.				
				27. Some learners in this school do not talk when in class.				
				28. In this school, strict discipline is needed to control learners.				
				29. In this school, learners fear asking for homework.				
				30. Sometimes learners are punished.				
				31. There is a fence round our school.				
				32. There is a gate at this school.				
				33. There are first aiders in this school.				
				34. There is a first aid kit in our class.				
				35. There is always a guard at the gate of our school.				
				36. There is a fire extinguisher at this school.				
				37. I feel safe at this school.				
				38. At times we have meals together as a family.				
				39. This school has a suggestion box.				
				40. I am sure of success.				

Comments on how you would like your school to be improved as regards:

(i) School Infrastructure

(ii) Teaching/learning materials:

(iii) Interpersonal relationships:

APPENDIX D

Observation schedule

DOES THE SCHOOL HAVE THE FOLLOWING INFRASTRUCTURE?

1	Class rooms, big enough for learners?	**Yes**	**No**
2	Extra rooms?		
3	Grounds for learners during break?		
4	Electricity?		
5	Staffroom?		
6	A kitchen?		
7	Are toilets girl-friendly?		
8	Are grounds tidy?		
9	Are the grounds well maintained?		
10	Are the classrooms clean?		
11	Are desks in good condition?		
12	Is the staffroom neat?		
13	Does the school have flowerbeds?		
14	Are the learners tidy?		

Comments:

APPENDIX E

Zone	School	Category	No. of Teachers	Sample size	No. of learners	Sample size
Muvuti	Machakos Pri.	A	43	9	1,656	27
	Baptist Pri.	A	21	6	730	27
	Mikuini Pri.	B	9	6	437	27
	Kitulu Pri.	B	9	6	388	27
	Kiima-kimwe Pri.	C	6	6	222	25
	Kyeni Pri.	C	8	6	241	27
	Total		96	39	3,674	160
Mumbuni	Kyumba Pri.	A	8	5	235	23
	Misakwani Pri.	A	10	6	455	23
	Mungala Pri.	B	20	6	776	24
	Kitanga Pri.	B	9	6	443	23
	Kathekakai Pri.	C	24	6	642	23
	Kyemutheke	C	16	6	402	23
	Total		87	35	2,953	129
Mutituni	Kyasila Pri.	A	8	4	390	19
	Ngomeni Pri.	A	10	4	349	19
	Kyanda Pri.	B	9	4	241	16
	Metuma Pri.	B	13	4	476	19
	Kamuthanga Pri.	C	14	6	669	19
	Mua Farm Pri		9	4	434	19
	Total		63	26	2,559	111

Central Division Sample Schools