

**INFLUENCE OF SCHOOL PHYSICAL ENVIRONMENT ON TEACHERS'
SATISFACTION IN SELECTED PUBLIC PRIMARY SCHOOLS IN
ELGEYO MARAKWET COUNTY, KENYA**

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**A THESIS SUBMITTED IN FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY
IN EDUCATION OF KENYATTA UNIVERSITY**

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DECLARATION

I declare that this thesis is my original work and has not been presented in any other university/institution for consideration. This thesis has been complimented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited in accordance in line with anti-plagiarism regulations.

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DEDICATION

This study is dedicated to my beloved late daughter Sharon Jelagat for confidence and God's glory on her face. Her bravery as she fought off death challenged me to go a step higher in everything I undertake. I also dedicate it to my beloved wife Mrs Jeniffer Sang for supporting me morally, psychologically, spiritually and financially also to my parents Mrs Milka J. Sawe and the late Mr Joseph K. Sawe who ensured that I completed my education with minimal interference. I would not wish to forget mentioning my beloved aunt, the late Mrs Esther Jeruiyott Kibutit who became very instrumental in encouraging me to continue studying despite difficult moments. Finally, to my beloved children, Titus Kiprop and Victor Kemboi who gave me company whenever I did the work to late hours of the night and my brothers Zakayo Kipruto, Felix Kimutai, the late Christopher Kibet and sisters Faith Jepchirchir, Mercy Jebiwott, the late Beatrice Jepchumba for their patience and words of encouragement that enabled me to go through this programme. My long-time friend and relative Andrew Kibet Kosgei became so instrumental in ensuring that I do not relent or withdraw at any stage of my academic ladder. Thanks a lot for being at my side all the time. It is my humble prayer that the Almighty God bless you all and your families to see the fruits of our labour in the years to come.

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ABBREVIATIONS AND ACCRONYMS

CDE	County Director of Education
CSO	Curriculum Support Officer
ECE	Early Childhood Education
FDSE	Free Day Secondary Education
FPE	Free Primary Education
GOK	Government of Kenya
IEQ	Indoor environmental quality
ILO	International Labour Organisation
IPAR	Institute of Policy Analysis and Research
KCID	Kenya Institute of Curriculum development
KNUT	Kenya National Union of Teachers
KSPHA	Kenya Primary School Heads Association
NCES	National Centre for Education Statistics
OECD	Organisation for Economic Co-operation and Development
OSME	Ondo State Nigeria Ministry of Education
SDGS	Sustainable Development Goals
SPSS	Statistical Package for Social Science.
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization.
USA	United States of America

ABSTRACT

A conducive working environment is critical in enhancing productivity as well as satisfaction among professionals. Primary school teachers form a vital segment of the basic education as they impart basic knowledge to learners. Prioritizing their professional needs is, therefore, commendable to ensure that they fulfill their professional roles. This study sought to establish the influence of physical environment on teachers' satisfaction in public primary schools in Elgeyo Marakwet County, Kenya. The study was guided by four objectives: one, to identify how physical facilities, influence teachers' satisfaction in Elgeyo Marakwet County; two, to assess how work environment influence teachers' satisfaction in Elgeyo Marakwet County; three, to establish how the classroom arrangement influenced teachers' satisfaction in Elgeyo Marakwet; and, four, to identify the measures that teachers in Elgeyo Marakwet County use to improve their satisfaction. The two factor theory of Herzberg (1993) guided the study. The theory was based on the assumption that dissatisfaction leading to avoidance of work and satisfaction leading to attract one to work do not present end point of a single continuum. The study area was chosen owing to the high-stress levels due to workload and other indicators of dissatisfaction experienced by school teachers. Teachers, Head Teachers, Curriculum Support Officers (CSOs) and Assistant County Directors were targeted in the study. The county has 4 sub-counties headed by Sub-County Directors of Education with 26 educational zones headed by Curriculum Support Officers (CSOs). The county has 345 public primary schools with a population of 3,771 public primary school teachers. The study used stratified, purposive and simple random samplings to select participants. A total of 140 participants (where 38 were males and 102 being females) from Keiyo North Sub-County having a total population of 1,295 primary school teachers (221 males and 1,074 females) were sampled from 11 schools with 11 teachers per school to give 121 teachers (24 males and 97 females), 11 head teachers (8 males and 3 females), 7 Curriculum Support Officers (5 males and 2 females) and 1 Sub-County Director (1 male). Questionnaire, interview schedule and observation was used to collect data. Quantitative data was analyzed by use of both descriptive and inferential statistics where multiple regression was used. The inferential statistics comprised of Pearson product moment and multiple regression. The multiple regression model, ($R^2 = .557$) shows that physical environment account for 54.4% variation in teachers' satisfaction. The physical facilities ($\beta_1 = 0.419$), classroom arrangement ($\beta_2 = .606$) and work environment ($\beta_3 = .454$) had significant relationship with teachers' satisfaction. The school physical facilities, work environment, and classroom arrangement positively influenced teachers' satisfaction. The study recommended that there is need for school management to ensure that good physical appearance; conducive working environment, adequate facilities such as desks, shelves and classrooms are fully satisfied. Secondly, adequate reading and writing materials, reduced workload and proper cooperation by the school management should be addressed. Finally, proper demarcation of space, proper arrangement of books as well as adequate space for teacher movement in class should be well addressed in order to enhance teacher motivation and satisfaction level.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter presents the background to the study, statement of the problem, purpose of the study, research objectives and research questions. It also highlights the significance of the study, limitations and delimitations of the study, theoretical and conceptual frameworks and operational definition of terms.

1.2 Background to the Study

According to the United Nations Educational Scientific and Cultural Organization (2003) Sustainable Development Goals (SDGs), all countries should provide basic education because it is an integral constituent of development. Basic education creates choices and opportunities for people while reducing the burden of poverty and disease and increasing contributions towards economic and social prosperity (UNESCO, 2003). Basic education has a crucial role in individuals' improvement. It helps children gain the basic knowledge and skills with teachers as the basic role models (Baloglu, 2001; Erdem, 1998; Ko, 2003; Nichols, 2002; Velez-Arias, 1998). Primary education, which is the first stage of basic education is the foundation of any educational system. If this foundation is not strong enough, the whole educational system will be weakened.

Teachers are charged with important responsibilities of offering guidance and counselling to pupils in both academic and social matters, disciplining them, managing classroom activities that include learning and participating in curriculum

development panels among other things (Abbasi & Hollman, 2000). Teachers are likely to be motivated to effectively play their role and make a solid contribution to quality primary education when they experience satisfaction. Teachers' satisfaction is more of a journey that is determined by a number of factors, touching on both employer and employee, that work together to help employees develop feelings of pleasure and achievement and see their work as worth doing. They include, among other things, recognition, organizational support, feedback and physical work environment. Teachers' satisfaction can also be seen as a combination of psychological, physiological and environmental circumstances that cause a person to say that he/she is satisfied with his/her job (Long & Swortzel, 2007). Kumari (2011) in his study on satisfaction of the employees at the workplace indicated that satisfaction is a set of favourable or unfavourable feelings and emotions with which employees view their work. A person with high level of satisfaction holds positive feelings about the job while a person who is dissatisfied with his/ her job holds negative feelings about the job. Teachers' satisfaction is an important concern for both the employee as well as the employer as it has an impact on much organizational behaviour. Crossman and Harris's (2006) describe teachers' satisfaction as extent to which workers like their jobs. These scholars assert that, the quality of education depends upon the availability of qualified and motivated teachers. Moreover, they believe that if quality education is the goal of the school then, the aim should be on creating and maintaining the school climate, including physical environment that will encourage teachers to be committed to their school responsibilities.

Bucheli, Melgar, Rossi and Smith (2010) in their study on teachers' satisfaction and the individual educational level observed that impact of satisfaction on happiness and

well-being is undeniable. They reported that work occupies a large part of each worker's day and work is one's main source of social standing, it helps to define who a person is and affects one's health both physically and mentally. Bucheli *et al.*, (2010) reported that teachers' satisfaction could be explained by a set of personal economic and socio-demographic characteristics such as age, education, gender, relative income and cultural background. Cohen and Aya (2010) indicated that satisfaction has been a key factor for understanding occupational involvement and commitment. They further reported that lack of organizational commitment or loyalty has been cited as an explanation for employee absenteeism, turnover, reduced effort, theft, dissatisfaction and unwillingness to be relocated.

One of the factors that promote teachers' satisfaction is the school environment, which constitutes a whole range of factors that influence the teaching-learning process within the school. They include classrooms, library, technical workshops, quality teaching methods and peers, among other variables that can affect the teaching-learning process (Ajayi 2001). A good learning environment positively affects the academic achievement and behaviour of a student, something that is likely to contribute to the teachers' satisfaction. According to Okoza, Aluede and Akpaida (2012), learning and teaching environment ought to implement six functions: inform, communicate, collaborate, produce, scaffold/support and manage.

This study focused on the physical environment of the school since it is believed to have a variety of effects on teachers, pupils and the learning process that may significantly contribute to the satisfaction of the teacher. Research demonstrates that aspects of school physical environment such as poor lighting, noise, high levels of carbon dioxide in classrooms and inconsistent temperatures make teaching and

learning difficult. Poor maintenance and ineffective ventilation systems lead to poor health among pupils as well as teachers, which leads to poor performance and higher absentee rates (Frazier, 2002). These factors can adversely affect student behaviour and lead to higher levels of frustration among teachers and poor learning attitude among pupils. Learning environment that is free from barriers or distraction such as noise, gas/smoke pollution and so on, will promote pupils' concentration or perceptual focus to learning. Similarly, the entire unattractive physical structure of the school building could demotivate learners to achieve academically. This mismatch promotes poor academic performance. Danesty (2004) stated that dilapidated school buildings are not mentally stimulating and that facilities that are characterized with low or no sitting arrangement, will also affect pupils' learning negatively. In New York, the government has put up measures to ensure every public primary school has all the required facilities that would promote a conducive physical environment that would be rewarding to both the learner and the teacher and contribute to teachers' satisfaction (Psacharapolous & Woodhall, 1995).

According to Nadeem, (2011), school physical environmental factors such as poor conditions of school buildings, inadequate library facility, and working environment were found to be some of the factors that affected the performance of female teachers in Pakistan negative. Teachers belonging in urban areas attained better mean score as compared of those teachers in rural areas. Overcrowded classroom conditions make it difficult for students to concentrate on their lessons and unavoidably limit the amount of time for learning thus affecting teacher's performance.

Generally, teaching is really challenging in such schools where a large percentage of the pupils are under performing and the teachers are held responsible to raise the standard, which in return increases job stress. Burnout and stress are some of the emotional factors which may arise from facing the everyday challenges and has foremost influence on teachers' satisfaction (Giacometti, 2005).

Teachers highly satisfied with their jobs, would be willing to give their hearts out for their work unlike those unsatisfied. These teachers would be excited, cheerful and helpful to their pupils and colleagues. The unsatisfied teachers may not give their full potential and this can affect their pupils. In fact, there are negative effects of career dissatisfaction, chiefly, increased absenteeism, high level of stress and less likely to meet pupil's needs (Troman & Woods, 2000). In the developing countries, poor learning environments have always been identified as key factors that lead to poor performance in public primary schools (UNICEF, 2003).

The quality of education not only depends on the teacher as reflected in performance of their duties, but also in the effective coordination of the school environment (Chuma, 2012). In this study, physical facilities, and school location are some factors within the school physical environment that were thought to be important in influencing the process of teaching-learning and eventually contributing to teachers' satisfaction hence worth researching on it. Egim (2003) maintained that in a bid to expand the education physical infrastructure in schools, facilities like classrooms and school buildings is considered over the quality of the physical environment. The design and structure of school environment forms the physical facilities of the school which may attract parents of educational institutions in their initial judgments about

the quality of what goes on in the school. They have effect on the perception and choice for learning experience desired by parents and pupils (Mitchell 2008).

Beyond the direct effects that poor facilities have on pupils' ability to learn, the combination of poor facilities, which create an uncomfortable and uninviting workplace for teachers, combined with frustrating behaviour by pupils including poor concentration and hyperactivity, lethargy, or apathy, creates a stressful set of working conditions for teachers (Chukwuemeka, 2013). This study sought to understand the implications of the working conditions brought about by the status of the school physical environment to the satisfaction of the teacher.

Plunkett and Dyson (2011) in their study on examining the complex ecologies associated with educating and retaining new teachers in rural Australia reported that like salaries, working conditions including the school physical environment, play a critical role in determining the supply of qualified teachers and influencing their decisions about remaining in the profession. Research shows that safe school environment is one of the factors that can improve teacher effectiveness, enhance their commitment to school and promote their satisfaction.

National Science Board (NSB) (2008) on the study on elementary and secondary education reported that working conditions are strongly associated with teacher commitment to teaching. Regardless of what they taught, teachers who worked in a positive school environment tended to be more likely to consider teaching as a long-term career and to believe they would choose the profession again.

Research demonstrates that poor and inadequate facilities affect the overall performance of the institutions. Sufficient facilities promote academic achievement and strengthen the overall institutional performance. Academic achievement is negatively affected by the school physical environmental factors such as unattractive and old school buildings; cracked classroom walls and floors; lack of toilets; lack of desks and benches; lack of transport facility; lack of drinking water; lack of power supply; lack of playgrounds; lack of sufficient classrooms; lack of educational technology and lack of first aids facility negatively affect academic achievement of the institutions (Hussain, Ahmad, Ahmad, Suleman, Din & Khalid, 2012). This study sought to determine how these factors of the school physical environment influenced teachers' satisfaction.

In sub-Saharan African countries, the physical environment in public schools is characterised by insufficient facilities and congested classrooms (Adeyemi, 2007). In Nigeria for example, many classes were found to have up to 50 pupils which was higher than the 30 to 40 pupils as indicated in the National Policy on Education (Federal Government of Nigeria, 2004). The physical outlook of the school environment is very important in contributing to healthy academic exercise. It forms the fulcrum on which other activities revolve. Adeyemi (2007) while reporting on Ondo State mentioned that the classrooms in most of the schools were inadequate in terms of decency, space, ventilation and insulation from heat. He also noted that the incinerators and urinals were not conveniently placed, and that the school plant was poorly maintained. He lamented that the combination of these deficiencies constituted a major gap in the quality of learning environment. But then there are few prominent public and private primary schools with very good facilities across the state (OSME

2012). Job dissatisfaction is among factors which influence teachers opting out of teaching in sub-Saharan countries (Giacometti, 2005). There are questions about whether the schools in developing countries such as Ghana have the capacity and the needed resources to give the teacher a comfortable working environment.

The most critical finding that emerges from studies is that very sizeable proportions of primary school teachers, particularly in sub-Saharan Africa, have low levels of satisfaction and are poorly motivated. Many tens of millions of children are, therefore, not being taught properly and are not receiving even a minimally acceptable education. As the authors of the Tanzania country report point out —the demotivation of teachers is a major contributory factor to the abysmally poor learning achievements of primary and secondary students (Bennell & Muykanuzi, 2005).

Bessel, Dicks and Kepner (2013) argue that an individual should be provided with an enabling environment to perform and produce the desired results. The teacher being an instrument of this success requires the physical, psychological, economic and social comfort. Muinde, (2013) pointed out that one of the signs of deteriorating conditions in an organization is low motivation and satisfaction. It leads to strikes, slowdowns, absenteeism and employee's turnover. It may also lead to low productivity disciplinary and organizational difficulties.

Mhishi, Erinosa and Sana (2012) reported that most teachers working in rural areas find themselves disadvantaged compared to their urban area counterparts. Mhishi *et al.*, (2012) further reported that these teachers have no access to facilities such as libraries, good housing, banking, clean tap water, Internet services and electricity. Lack of these basic amenities have made most rural school teachers frustrated and are

now concentrating more in improving their living conditions in the rural areas at the expense of diligently discharging their duties thus concerning performance in school. They further reported that this could be the reason as to why most teachers have resulted into venturing into business, farming and going back to college for further studies while others leave teaching for greener pastures elsewhere.

In Uganda, physical characteristics of the school have a variety of effects on the teachers, pupils and the learning process. Poor lighting, noise, high levels of carbon dioxide in classrooms and inconsistent temperatures make teaching-learning process difficult. Poor maintenance and ineffective ventilation systems lead to poor health among the pupils and higher absentee rates among pupils (Frazier, 2002; Lyons, 2001 & Ostendorf, 2001).

Omari (2005) reported that in Ghana, secondary school students ranked teaching position 18 among 25 occupations in terms of prestige. This attitude of young people towards the teaching could be partly explained on the ground of the undesirable physical environments of schools. An unfavourable attitude towards teaching, which has been developed through the years, has been that the young people are recruited into teaching because they have been unable to meet the requirements of schools of engineering, medicine, law and other highly specialized preparations required in the sciences and government.

A report by Institute of Policy Analysis and Research (IPAR, 2008) on radical reform for Kenya's education sector has revealed that the current system requires numerous improvements. Some of the challenges that characterize the current system include poor learning environment, poor governance underfunding and demotivated teachers.

The report points out that teachers are not motivated hence, could be unwilling to work harder to improve the current results, which are dismal (IPAR, 2008). The relevance of teachers' satisfaction and motivation is very crucial to the long term growth of the educational system around the world. Since the inception of Free Primary Education (FPE) in Kenya, there has been increased enrolment which leads to overcrowding in classrooms making the work of the teacher difficult since he/she cannot easily move around in the classroom (Wabuoba, 2011 in Chuma 2012). Therefore, this study sought to establish the influence of physical environment on teachers' satisfaction.

Keiyoro (2012) in the Task Force on the Re-Alignment of the Education Sector to the Constitution of Kenya 2010 and Vision 2030, singled out education and training as the vehicle that will drive Kenya into becoming a middle-income economy. In addition, the Constitution, 2010 provided for free and compulsory basic education as a human right to every Kenyan child. This can only be achieved if the teachers have high satisfaction. Teachers join the teaching force in order to satisfy their needs. The teaching profession plays a crucial role in the social economic development of Kenya. Teachers have the responsibility of implementing educational policies and programmes which lead to human resources development. A more efficient and effective teaching force is therefore key to the country's growth and development.

Mwendwa (2013) reported that many trained teachers in Kenya, have been leaving teaching to seek jobs which they consider more prestigious. In the sixties, independence opened up avenues of employment and made available numerous jobs in the public service, altering the position of the teaching profession.

A study by Majanga, Nasongo and Sylvia (2010) found that Free Primary Education (FPE) created increased class sizes, shortage of teachers, heavy teachers' working load and lack of teacher motivation in Kenya. They further found that teachers are demoralized with heavy workloads, handling many lessons, many pupils and work for long hours. Sirima and Poipoi (2010) also reported in a study in Busia District in Kenya that public secondary school teachers with high levels of satisfaction tend to have high social and psychological atmosphere in the classroom that result in high productivity and effectiveness in job performance and willingness to stay longer.

It is the Kenyan Government responsibility to provide infrastructure including schools, learning and teaching equipment, and appropriate financial recourses in Government schools. Expanding school systems and improving the quality of education are important goals for any government including the Kenyan government. Providing and improving education is a primary and ultimate basis for the wealth of nations. The emphasis on school facilities and amenities construction and enrolment expansion undoubtedly go hand in hand.

Since the introduction of FPE funding in Kenya, physical facilities in public schools remain an impending factor to the achievement of overall effectiveness. This has been the case as evidenced by most primary school structures in Elgeyo Marakwet County which were originally built in the late 1960's. Expansion programs for schools have been quite unsuccessful more so in the urban slum schools. Indeed, the rapid rate of expansion in the number of school going children is not commensurate with the school facilities and amenities available. One of the reasons is that resources available for education levelled off or declined with school expansions in the Country.

The relevance of satisfaction and motivation are very crucial to the long-term growth of any educational system around the world. In Kenya, the issue of teachers' satisfaction has been manifested through trade unions whereby the Kenya National Union of Teachers (KNUT) has been advocating for improved working conditions of teachers through increase in salaries. Many studies have been carried out to establish the impact of improved remuneration in enhancing teachers' satisfaction in Kenya but none has been done on the relationship between teachers' satisfaction and school physical environment. This study, therefore, sought to establish the influence of school physical environment on teachers' satisfaction.

1.3 Statement of the Problem

With the implementation of Free Primary Education (FPE) by the Government of Kenya in 2003, most schools experienced high enrolment. The Gross Enrolment Rate was 99 percent (102 % for girls and 97% for boys) in 2003 (GOK, 2005). This is because almost all the children who had dropped out of school due to lack of fees took advantage of FPE and re-enrolled. From the foregoing presentation, it is evident that primary school teachers face a number of challenges which impact on their satisfaction. This is intensified by overcrowded classes, an increase in the workload and lack of enough desks for pupils, inadequate staff and pupil-teacher ratio. Other factors relate to; poor work environments in schools, inadequate in-servicing of teachers, inadequate facilities, poor health and sanitation, gender insensitive environment, poor physical facilities and inadequacies in quality assurance also contribute to low teachers' satisfaction, GOK (2005).

In Elgeyo Marakwet County, the County Director of Education's (CDE) report released in 2014, noted that primary school teachers were dissatisfied following high rate of teacher absenteeism. The report indicated that the teachers were engaging in other businesses outside the school rather than teaching. Some of the teachers reported to school only for a few hours and then sneaked away (CDE, 2014). While some studies like Odhiambo (2011); Sirima and Poipoi (2010) and Miller (2013) have shown the relationship between school environment and teachers' satisfaction, none of them has been carried out on physical environment in public primary schools in Elgeyo Marakwet County. It is upon this background that this study sought to establish the influence of school physical environment on teachers' satisfaction in selected public primary schools in Elgeyo Marakwet County, Kenya. In particular, the study focussed on the impact of five aspects of the school physical environment, namely; playground, shades, classrooms, staffroom lighting and latrines on teachers' satisfaction.

1.4 Purpose of the Study

The purpose of this study was to determine how school physical environment influenced teachers' satisfaction in public primary schools in Elgeyo Marakwet County, Kenya.

1.5 Objectives of the Study

The study was guided by the following objectives:

- i. To identify how physical facilities, influence teachers' satisfaction in Elgeyo Marakwet County.
- ii. To assess how work environment influence teachers' satisfaction in Elgeyo Marakwet County.

- iii. To establish how the classroom arrangement influenced teachers' satisfaction in Elgeyo Marakwet.
- iv. To identify the measures that teachers in Elgeyo Marakwet County use to improve their satisfaction.

1.6 Research Questions

The study was guided by the following questions:

- i. How do physical facilities influence teachers' satisfaction in Elgeyo Marakwet County?
- ii. In which way does the work environment influence teachers' satisfaction in Elgeyo Marakwet County?
- iii. How does classroom arrangement influence teachers' satisfaction in Elgeyo Marakwet County?
- iv. What measures do primary school teachers in Elgeyo Marakwet County take in order to improve their satisfaction?

1.7 Assumptions of the Study

This study was conducted under the following assumptions:

- (i) Teachers are dissatisfied with the school physical environment.
- (ii) Respondents were going to be honest and factual while providing information about school physical environment and satisfaction of teachers.
- (iii) The information collected was going to reflect the true and precise picture of the situation on the ground.

1.8 Limitations of the Study

The main limitation of the study was lack of related studies done locally on school physical environment and teachers' satisfaction. Therefore, the study mainly used related studies from other countries for purposes of literature review. The study used questionnaires and interviews to collect data from the subjects who did their own self-assessment. Accordingly, it may be difficult to determine the accuracy of all the information they gave about themselves. Some of the study respondents hesitated responding to the questionnaires due to fear of intimidation. However, the researcher assured them of the confidentiality of information and anonymity while encouraging them to feel free and safe to speak since the study was purely for academic purposes.

1.9 Delimitation of the Study

This study was confined to the influence of school physical environment on teachers' satisfaction in selected public primary schools in Elgeyo Marakwet County and findings may be generalized to other counties with care. The aspects of the school physical environment studied included physical facilities, work environment and classroom arrangement. Other factors that may also affect teachers' satisfaction such as remuneration, leadership styles, promotion, recognition, good interpersonal relationships and motivation were not considered. The study was done in public primary schools because they form the majority of schools in Elgeyo Marakwet County and they are more likely to experience challenges related to physical environment than private schools.

1.10 Significance of the Study

The findings of this study may be significant to the following; the Government of Kenya through the Ministry of Education (MOE) and the Teachers Service Commission (TSC), County Education Board, school boards of management and head teachers, since they will be enlightened on the status of the school physical environment and the various ways in which it influences teachers' satisfaction while enhancing or inhibiting academic achievement of pupils in Elgeyo Marakwet County.

The different education stakeholders such as Ministry of Education may use the findings to improve the school physical environment for teachers. Moreover, the findings may also help the government realize the role of school physical environment in improving teachers' satisfaction. The school head teachers will be able to identify aspects of work environment for the teachers that may improve their satisfaction. Finally, this study will help to encourage policy makers and the community in general to strive to improve physical environment for teachers for their effective performance. The study will provide crucial information to education policy makers that are important in improving school physical environment thus enhancing teachers' satisfaction and consequently school performance.

Others to benefit from the research findings will be educational interest groups like Kenya National Union of teachers (KNUT), Kenya institute of Curriculum development (KCID), Kenya Primary School Heads Association (KSPHA) among others who may find this study useful in addition to physical environment and teachers' satisfaction. The study will also be useful to future scholars as it will also

add to the existing body of knowledge. This will improve provision of education to students and hence achievement of Millennium Development Goals and Vision 2030.

1.11 The Theoretical Framework

This study adopted the Herzberg's Two factor theory. This theory, formulated by Frederick Herzberg, provides the framework for understanding the connection between an individual's satisfaction and quality of the physical environment. It highlights the importance of maintaining a hygienic environment to ensure job motivation. Herzberg's Two factor theory was propounded by McClelland (1951) of Harvard University. Herzberg, Snyderman's and Mausner (1959) two-factor is heavily supported need fulfilment as a result of their interest in the way to best satisfy employees. The result of their studies showed that the factors that led to job motivation once present weren't an equivalent factor that led to job discontentment when absent. They saw motivation and discontentment as freelance. They cited those environmental factors that cause employees to be discontent as Hygiene factors.

Herzberg's two factor theory of motivation suggests that there are two sets of factors which either led to satisfaction or dissatisfaction. They are motivation factors and hygiene factors. Herzberg collected data from 200 accountants and engineers asking a simple question such as "Can you describe, in detail, when you feel exceptionally good about your job?" Similarly, "Can you describe, in detail, when you feel exceptionally bad about your job?" Good feelings about the job were reflected in comments concerning the content and experiences of the job, for example, doing work or a feeling of accomplishment and challenge, bad feelings about the job were

associated with context factors, that is those surrounding but not directly involving in the work itself like salary and working conditions.

This study revealed two distinct types of motivational factors: satisfiers and dissatisfiers. Herzberg's two factor theory of 1959 identified satisfying intrinsic factors that determine satisfaction. It has two sets of factors; the first set consists of achievement, recognition for achievement for work itself, responsibility and advancement which are strong determining factors of satisfaction. According to Herzberg's theory, it would be unrealistic to insist that the intrinsic factors are exclusive factors (they are independent factors).

A more realistic view is to regard both intrinsic and extrinsic factors as capable of generating satisfaction as well as dissatisfaction. That is the presence of certain variables leads to satisfaction whereas their absence leads to dissatisfaction. Intrinsic factors according to Herzberg are reward from job itself; these include self-respect, sense of accomplishment and personal growth. Extrinsic factors are rewards from the work environment such as salaries, fringe benefits and job security. However, the motivation hygiene theory overlooks personality characteristics of workers which play a vital part in satisfaction. For instance, a teacher who has strong need for achievement could be extremely dissatisfied when he/she perceives himself / herself as not achieving his/her teaching profession.

The second set of factors is grouped as determinants of dissatisfaction or extrinsic factors. These include aspects such as organization, policy and administration, supervision, salary, interpersonal relations and working conditions. This set of factors is related to the environment or context of and not work itself and also regarded as

criteria. Based on these findings, Herzberg and his colleagues formulated the motivation hygiene theory. They termed hygiene factors as dissatisfiers as they claimed that a good hygiene environment prevents dissatisfaction but does not necessarily create satisfaction.

Herzberg arrived at two specific conclusions: (i) Hygiene factors (dissatisfies) are a set of extrinsic job conditions that, when not present, result in dissatisfaction among employees. These conditions are the dissatisfiers or hygiene factors because they are needed to maintain at least a level of no dissatisfaction. These factors are related to the context of the extrinsic and are called dissatisfies. These include: - security, salary, working conditions, status, company supervision, interpersonal relationship and fringe benefits (ii) Motivator factors (satisfiers); a set of intrinsic conditions exist that help to build levels of motivation, which can result in good performance. If these conditions are not present, they do not result in dissatisfaction. These sets of aspects are related to the content of the job and are called satisfiers. These include; achievement, recognition, works itself, responsibility, advancement, personal growth and development. The presence of motivating factors always ensures satisfaction and happiness among the employee's. These motivating factors are related to the work content factors.

The other set, which leads to dissatisfaction, is the hygiene factors such as salary, company policy, supervision, status, security and working conditions. Herzberg argued that improvement in the hygiene factors would only minimize dissatisfaction but not increase satisfaction and motivation. This study is based on Hertzberg's motivation hygiene theory. This theory helped in learning the factors that bring about satisfaction and dissatisfaction in the life of a worker. Herzberg is most noted for his

famous 'hygiene' and motivational factors theory and he was essentially concerned with people's well-being at work. Underpinning his theories and academic teachings, he was basically attempting to bring more humanity and caring into the workplace. He sought to primarily explain how to manage people properly, for the good of all people at work.

Herzberg's research proved that people will strive to achieve 'hygiene' needs because they are unhappy without them, but once satisfied the effect soon wears off - satisfaction is temporary but people are only truly motivated by enabling them to reach for and satisfy the factors that real motivators, such as achievement, advancement, development which represent a far deeper level of meaning and fulfilment. The examples Herzberg's 'hygiene' needs or maintenance factors in the workplace are policy, relationship with supervisor, work conditions, salary, company car, status, security, relationship with subordinates and personal life. Herzberg's true motivators are achievement, recognition, work itself, responsibility and advancement. This study intends to establish the influence of physical environment teachers' satisfaction among public primary school teachers.

In order to motivate employees, the managers must first provide the hygiene factor and then follow the motivating factors. Herzberg's motivation- hygiene theory proposed that intrinsic factors are related to teachers' satisfaction and motivation, whereas extrinsic factors are associated with dissatisfaction. In addition, Herzberg (1959) indicated that the factors that led to teachers' satisfaction were separate and distinct from those that led to dissatisfaction and could bring about workplace harmony but not necessarily motivation because they do not motivate employees, the extrinsic factors that create dissatisfaction were called hygiene factors. When these

factors are adequate, people will not be dissatisfied; but at the same time they may not be fully satisfied. They will be in neutral state. If managers want to motivate people on their jobs, it is suggested to give much importance on those content factors such as opportunities for personal growth, recognition, responsibility, and achievement. These are the characteristics that people find intrinsically rewarding. Despite these criticisms, Herzberg's theory has been widely popularized as a case in point of the initial enthusiasm for enriching jobs by allowing workers greater responsibility in planning and controlling their work. This can probably be attributed largely to his findings and recommendations.

Herzberg *et al.*, (1959) pointed out that the opposite of dissatisfaction is not satisfaction but no dissatisfaction. Both hygiene factors and motivation factors are important but in different ways (Naylor 1999). When the concepts are applied in school education, school improvement fundamentally depends on teaching, ways to increase teacher and student motivation and efforts to make schools more effective. Highly motivated and need satisfied teachers can create a good social, psychological and physical climate in the classroom.

Sergiovanni (1987) study to test Herzberg's theory in educational setting supported the premise of motivation-hygiene theory. This theory shows how infrastructural projects are of utmost importance more so since they generally influence a person's attitude towards contribution of economic growth. Human beings differ from one another in the strength of achievement motive. It is this difference in the strength of motivation to achieve that is important in understanding the differences in the economic growth of nations. This theory can be related to the study and has been

upheld by a number of researchers (Ajila & Olutola, 2000) and is also relevant to the current study.

The criticisms against Herzberg's two-factor theory as observed by some researchers (Stello, 2016, & Heinz, 2016): (i) the reliability of Herzberg methodology is questionable. Rates have to make interpretations, so they may contaminate the findings by interpreting similar responses differently; (ii) No overall measure of satisfaction was used. A person may dislike part of his or her job yet still find the acceptable; (iii) The theory is inconsistent with previous research, the two factor theory ignores situational variables; (iv) Herzberg assumed a relationship between satisfaction and productivity, but his research methodology looked only at satisfaction not at productivity, to make such research relevant, one must have assumed strong relationship between satisfaction and productivity.

This study adopted the criticisms earlier put forward by Gaziel in Stello (2016) because of its concern with teachers' satisfaction which is the focus of this study. They are: (a) the theory appears to be bound to the critical incident method; (b) the theory confuses events causing feelings of satisfaction and dissatisfaction with the agent that caused the event to happen; (c) the reliability of the data could have been negatively impacted by ego-defensiveness on the part of the employee; (d) factors overlap as sources of satisfaction and dissatisfaction; (e) the value of the factors differ as a function of the occupational level of the employee; and (f) the theory ignores the part played by individual differences among employees. Finally, although the initial publication of the theory involved Herzberg and additional colleagues, the theory is mainly credited to Herzberg only. Despite these criticisms, Herzberg's theory has been widely popularized as a case in point much of the initial enthusiasm for

enriching jobs by allowing work greater responsibility in planning and controlling their work can probably have attributed larger to findings and recommendation Stello (2016). Herzberg theory was applicable in the influence of teachers' satisfaction in public primary schools of Kenya and especially those from Elgeyo Marakwet County.

1.12 The Conceptual Framework

The conceptual framework indicated the relationship between independent and dependent variables. The independent variable was school physical environment, while the dependent variable was teachers' satisfaction. The study was guided by the assumption that school physical environment influences teachers' satisfaction in public primary schools in Elgeyo Marakwet County. School physical environment comprised of the school physical facilities, teacher work environment and classroom arrangement. On the other hand, teachers' satisfaction was identified using the length of stay in particular working station and pupil performance. The Free Primary education (FPE) policy was the intervening variable in the study. Figure 2.1 represented the interplay between independent and dependent variables.

The study on school physical facilities showed that attractive and more appealing physical facilities have a positive significant influence on teachers' satisfaction. The teachers' work environment was very relevant in determining their job satisfaction. The quality of working environment, in terms of availability of teaching resources positively influenced teachers' satisfaction. Further, classroom arrangement influences teachers' satisfaction. Teachers may require ample working spaces in order to perform their duties diligently. However, poor workspace arrangement may affect their level of satisfaction, for example, the arrangement of desks in the classrooms.

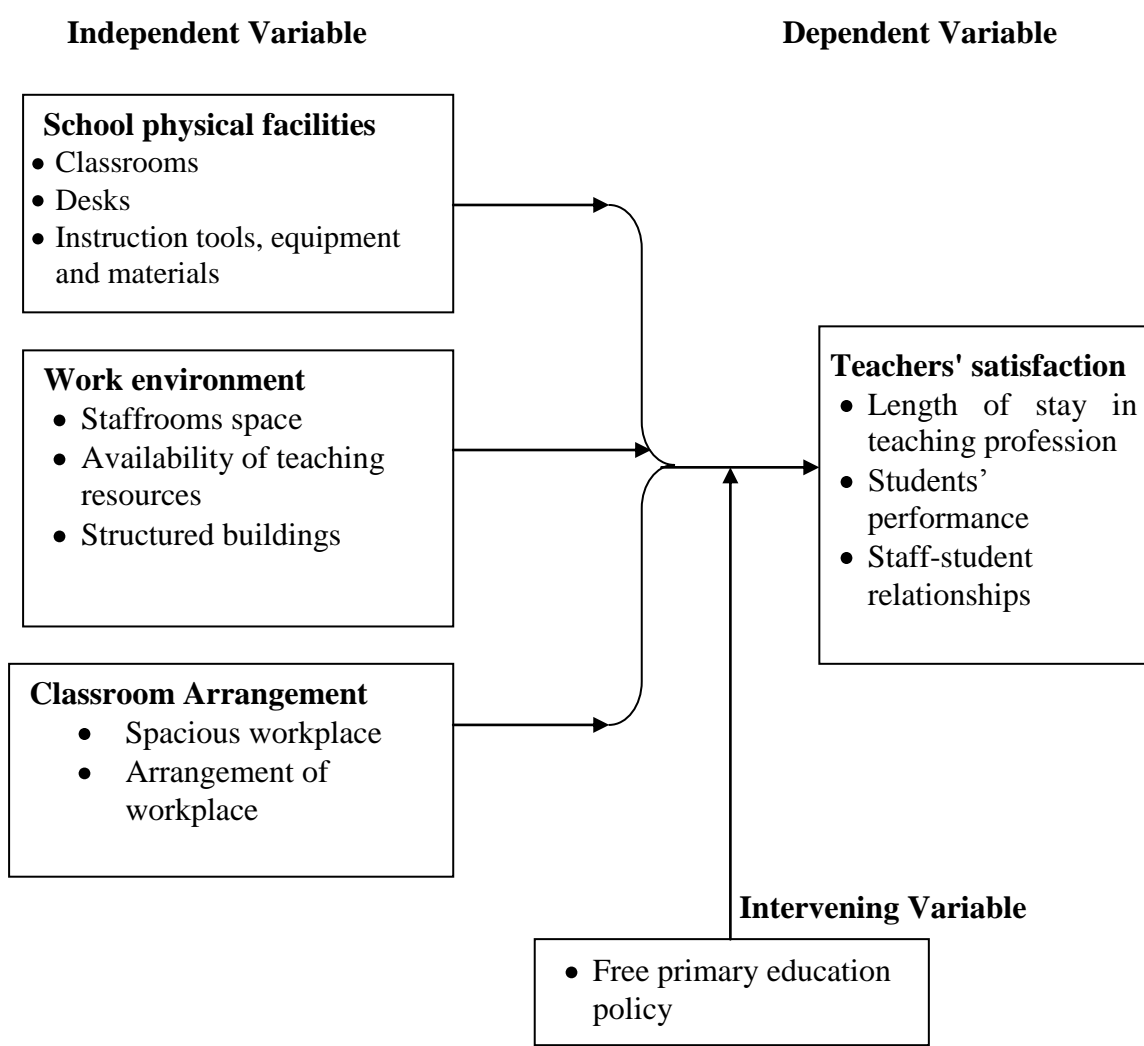


Figure 2.1: A Conceptual Framework on how School Physical Environment Influence Teachers' Satisfaction

Source: Author, 2018

1.13 Operational Definition of Key Terms

School physical facilities: In this study it will refer to outward and inward look of classrooms, staffrooms, management block, latrines and any other building in the school. It will also imply whether such mentioned buildings are attractive and appealing since it may influence teachers' satisfaction.

Physical environment: Includes infrastructural facilities such as school building, staff offices, laboratories, and libraries conveniences for staff and pupil's recreational facilities etc. The presence of the good conditions of school has positive influence on teacher's attitude towards their job. When such facilities are poor or not provided, the teachers' morale is low and their level of commitment is very minimal.

School Physical Environment: Refers to the physical structures such as buildings, toilets, libraries; playgrounds, fences, trees, swimming pools among others which are critical in influencing teachers' satisfaction.

Teachers' Satisfaction: This is the feelings and attitudes of people toward their job. The satisfied teachers contribute significantly to the improvement of students' academic performance and school effectiveness at large.

Work environment: This is the surrounding conditions in which teachers operate, it involves the physical geographical location as well as immediate surroundings of workplace. These are the environmental conditions in which teachers teach.

Physical facilities: are the stimulating factors that play a fundamental role in improving academic achievement in the school system. In this study included classrooms, desks, teacher houses, instruction tools, equipment's and materials in a public primary school.

Classroom arrangement: is the way the desk, chairs and seating is organized in a class during a learning process. This study considered seating arrangement in such a way that it may ensure smooth instructional process and facilitate teacher in making an atmosphere where quality learning is promoted.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviewed various studies that have been conducted in relation to the concern of the current study. Using a thematic approach, it reviewed literature in relation to the following sub-topics: teachers' satisfaction, school physical facilities, working environment of teachers, arrangement of workspace as well as management factors.

2.2 Teachers' Satisfaction among Public Primary School Teachers

Armstrong (2003) defined teachers' satisfaction as the feelings and attitudes of people towards their job. If people have favourable and positive attitudes towards their job, this means satisfaction, but if they have unfavourable and negative attitudes towards their job, this means dissatisfaction. This definition is supported by Smith (2000) who also asserts that it is the degree of satisfaction or gratification experienced by workers with their profession.

According to Latham (1998), satisfied teachers can contribute significantly to the improvement of students' academic performance and school effectiveness at large. Similarly, Shann (2001) asserts that satisfaction helps to retain teachers and makes them committed to their and through this also makes their schools very effective. In other words, satisfaction contributes to improvement of teaching, students' learning and teacher retention.

Teachers' satisfaction represents one of the most important areas of work motivation (Dinham & Scott, 2004). Teachers' satisfaction is simply defined as the effective orientation that an employee has towards his or her work (Price, 2001). Teachers' satisfaction is a worker's sense of achievement and success on the job. Teachers' satisfaction is an emotion, a feeling, an attitude and a matter of perception that result from an employee appraisal at work. Teachers' satisfaction is determined by the degree to which the individual perceives related needs are being met. Single as well as several factors measures can be used to measure satisfaction, such anonymous employee satisfaction surveys administered in areas such as empowerment, teamwork, communication and co-worker's interaction. Satisfaction of human resource finds close link to a highly motivated employee.

Motivated staff then develops loyalty or commitment to an institution resulting to greater productivity and lower turnover rates. Brudett and Smith (2003) in a study based on a sample of 57 schools in England and Wales concluded that those learning institutions with abundant learning and teaching resource, favourable student- teacher ratio, commendable workload and good reward and incentive for teacher's performance with better compared to learning institutions which do not provide the same. It is generally perceived to be directly linked to productivity as well as to personal well-being.

Teachers' satisfaction further implies enthusiasm and happiness with ones' work. It is the key ingredient that leads to recognition, income, promotion and the achievement of other goals that lead to a feeling of fulfilment (Kaliski, 2008). Teachers' satisfaction also means a collection of feelings and beliefs that people have about their current job. Peoples' level or degree of teachers' satisfaction can range from extreme

satisfaction to extreme dissatisfaction. In addition to having attitudes about their jobs as a whole, people also have attitudes about various aspects of their jobs such as the kind of work they do, their co-workers, supervisors or subordinates and their pay (Ghazzawi, 2008).

Armstrong (2001) states that the level of satisfaction is affected by intrinsic and extrinsic motivating factors, the quality of supervision, social relationships with work groups and the degree to which individuals succeed or fail in their work. People are motivated to achieve certain goals and will be satisfied if they achieve these goals. Researchers show that lack of satisfaction on part of employees result in low levels of commitment to perform and achieving organizational goals. Studies also show that if work force is satisfied with their as well as the organizational environment including its colleges, compensation and leadership, they will be more committed with their organization as compared to those who are not satisfied (Okpara, 2004). Researchers have studied the connection between teacher's demographic variables and satisfaction. Harris (2006) suggested that levels of satisfaction felt by teachers in similar work environment can vary from one individual to another.

Teachers' satisfaction is not a new phenomenon at all in organizational science and organizational behaviour. It is one of the topics that have drawn interest among scholars in the field. Many studies have been conducted on this particular topic for many years now and hundreds of articles published (Zembylas & Papanastasiou, 2006). However, literature indicates that most of the studies were done in the developed countries such as United States of America, United Kingdom, Canada and New Zealand but very few were undertaken in the developing countries (Ngimbudzi, 2009). A survey conducted recently on teachers 'motivation and satisfaction in 12

countries in Asia and Sub-Saharan Africa including Tanzania raises concerns about the influence of low teachers' satisfaction on teacher's absenteeism, lateness and lack of commitment to their work" (Bannel & Akyeampong, 2007). Additionally, teachers' satisfaction is not only important to teachers themselves as civil servants, educational managers and leaders and employers but also to students in all types of schools. According to Shann (2001), "teachers' satisfaction has been shown to be a predictor of teacher retention, determinant of teacher commitment, and in turn, a contributor to school effectiveness." This implies that teachers' satisfaction is an important phenomenon for secondary school teachers, their employers and students at large.

In more developed countries, such as the United States of America (USA), the United Kingdom (UK), Australia and New Zealand, teachers seem to enter teaching for intrinsic rather than extrinsic reasons (Dinham & Scott 1999, 2000 and 2004). These factors include student achievement, helping students, positive relationships with students and others, self-growth and so on developing warm, personal relationships with children, the intellectual challenge of teaching, and high levels of teaching autonomy, strong leadership and administrative support (Shann, 1998; Houtte, 2006; Noddings, 2006). Teachers' satisfaction has been linked to positive outcomes including teacher retention and better performance (Armstrong, 2009). A study carried out by Goodlad (1984) in the United States shows that satisfied teachers have a positive effect on classroom learning.

On the contrary, a study carried out in the United States by Lyson and Falk (1984) points out that it is the best qualified teachers who are most likely to leave teaching. After describing the teacher retention problem in the field of special education in Georgia, Fore *et al.* (2002) concluded that a lack of recognition, few opportunities for

promotion, poor teacher working conditions, lack of administrative support, inadequate resources, limited decision-making power, and extensive time spent in meetings, and limited opportunities for individualisation, all contribute to teachers' decisions to leave schools.

The overall picture of teachers' satisfaction in the United States of America schools is reported by the National Centre for Education Statistics (NCES) in 2002 in its Staffing Survey (SASS). The findings of the study revealed the factors that constitute the distinguishing factors between the most satisfied and the least satisfied teachers. These are class size, support for the education of the whole child, academic excellence, and treatment of teachers as professionals, including giving them considerable autonomy and independence. The study cited also supportive and encouraging administration. By contrast, it is cited that teachers in the USA have little concern with salary and benefits

Studies on satisfaction can be traced back approximately two centuries ago when industrial revolution begun in the United Kingdom. Most of these studies focused on maximizing workers output (Kinyua, 2011). Study of employees' positive or negative reaction to their jobs began to take hold when Elton Mayo first studied the effect of lighting on employees' performance (Kinyua, 2011). Mayo later included factors such as fatigue, breaks and working hours. Studying employees and providing them with more attention increased their productivity and motivation.

Teachers' satisfaction is the extent to which one feels good about the (Tasnim, 2006). The source of motivation and satisfaction is not only a job and its related payment scale, but also created from the working conditions, supervision style, interpersonal

relationship, and organizational cultural (Aggarwal, 2005). The working conditions refer to the environment in which one works. It covers a variety of issues such as work load, culture, structures, community relations, school operating procedures, teachers' salaries, physical and social infrastructure such as roads, water, electricity and hospitals (Leithwood, 2006).

The results from Crossman and Harris's (2006) study also indicated that teachers in foundation schools exhibited the lowest teachers' satisfaction. Other authors cite different factors, including conflict between work and family life (Spear *et al.*, 2003); behaviour difficulties exhibited by some pupils, the "failing schools" (Scott & Dinham, 2004) as well as pay (Chung *et al.*, 2004). Speal *et al.* (2003) in their study concluded that the main contributors to high levels of teachers' satisfaction are working with children, the intellectual challenge of teaching and employee autonomy and independence. Dissatisfaction with teaching was often linked to high workload, low level of pay and poor status.

In the UK, satisfaction amongst teachers has changed over time. Klassen and Anderson (2007) found that teachers rated their satisfaction significantly lower and ordered the sources of dissatisfaction significantly differently than did teachers in 1962. They reveal that, whereas teachers in 1962 were most concerned with external sources of dissatisfaction (e.g. salary, condition of buildings and equipment and poor human relations), teachers in 2007 expressed the most concern about factors relating to teaching itself (e.g. time demands and pupils' behaviour). More recently, Nagai (2007) observes that, in Japan, teachers' workload and other work characteristics and psychological factors, such as insecurity, effort-reward balance and compromised general health, have been proposed as factors of satisfaction for teachers.

Australian studies, have consistently highlighted the importance of recognition for teachers' work and the intrinsic motivation derived from student learning, achievement and improvement (Campbell, 2004). Again, Barnett, Marsh and Craven (2001) found several possible factors that operated as satisfiers within schools. These included quality and clarity of communications, flexible application of school rules and regulations, and the positive use of the chain of command executive structure within the school, the use of an "open door" policy as far as access to the principal was concerned, and the perception of the school as a happy environment.

In addition, a series of studies found that teachers obtain their greatest satisfaction through a sense of achievement in reaching and affecting students, experiencing recognition, and feeling responsible, as well as a sense of personal power and motivation (Dinham and Scott, 2000). The teachers in these countries were found to be motivated by a desire to work with and for the people and to make a difference by assisting children and young people to reach their potential, experience success, and grow into responsible adults. Satisfaction remained high on a small focused set of core business aspects of teaching. This satisfaction occurred at the personal levels of working directly with children: experiencing success with students, working cooperatively with other members of the educational community and professional competence. It is worth noting that, in developed countries, teachers' satisfaction is crucially influenced by intrinsic factors rather than extrinsic.

Brouwers et, al. (2001) conducted a study with 277 secondary school teachers in the Netherlands focusing on the relationship between the emotional supports offered by fellow teachers, principals and teacher burnout. They concluded that teachers who feel that they lack support from colleagues and principals have less confidence in their

capability and are consequently prone to burnout symptoms. In their research, in which experienced teachers in England and Australia were interviewed about their understandings of commitment, Day *et al.* (2005) discuss the connection among others, between satisfaction, commitment and teacher burnout, stating that: Teacher commitment is closely related to satisfaction, morale, motivation and identity, and is a predictor of teachers' work performance, absenteeism, burn-out, and turnover as well as an important influence on students' achievement in attitudes towards school.

International Labour Organisation (2011) recommended that there should be a clear scheme of service and promotion procedures and those measures should be taken to achieve greater commitment through changes in the teaching environment. The governments should seriously consider training, working and living conditions of teachers. However, this is not the case since the employment policies laid down by the employer about how certain issues should be undertaken have been neglected. Some of these crucial issues which have greatly demotivated teachers include the issue of upward mobility. The employer in most cases does not adhere to the laid or written policies on how many years a teacher should work or stay in one group before he is moved to the next, neither do they follow clear procedures supposed to be used in doing the same. This has become more serious where some teachers stay in one group or even retire before they become anything better than a class teacher.

There is even no certain merit for promotion. This has adversely been affected by corruption where some teachers may be promoted barely three years after their probation period while others are not. Promotion depends on what you have and who you know. This has greatly demoralized the teacher who does not even see the need of working hard since there's nothing to motivate them. The relevance of satisfaction

and motivation are very crucial to the long-term growth of any educational system around the world. They probably rank alongside professional knowledge and skills, center competencies, educational resources and strategies as the veritable determinants of educational success and performance. Professional knowledge, skills and center competencies occur when one feels effective in one's behaviour (Filak and Sheldon, 2003).

Chepyator (2013) reported that Gathachi report of 1976 noted with great concern the rising rate of unemployment among school leavers and recommended the restructuring of the education system curriculum in order to have more streams of science, mathematics and, technical and vocational subjects. The Mackay Report of 1981 influenced the extension of primary education from seven to eight years and thus influenced the restructuring of the education system from 7-4-2-3 to 8-4-4 and hence the introduction of technical and vocational training. These reports aimed at making the graduate suitable for the market and hence achieve satisfaction.

Odhiambo (2011) indicated that satisfaction is a pleasurable or positive emotional state resulting from the appraisal of one's or experience. Teachers' satisfaction among teachers is very crucial to the long-term growth of any educational system around the world. There is need for the Teachers Service Commission to seek for ways and modalities of attracting and maintaining teachers in the teaching profession.

Miller (2013), pointed out that enormous political interference in the appointment of school managers adversely affects the teacher's satisfaction since the right procedures are not followed and hence hindering qualified teachers from being promoted to the managerial positions. This may lead to lack of upward mobility in the profession and

leads to dissatisfaction. In contrast, extrinsic incentives, such as merit pay or effective teaching rewards have not been found to affect teachers' satisfaction and effectiveness among Nigerian teachers (Ubom, 2001).

2.3 School Physical Environment

The "learning environment" concept focuses on the school physical and social environment in terms of the building design, size of the classrooms and the general infrastructure including library facilities, staffroom, toilets, school compound and play ground. The physical environment should be both appropriate and attractive to teachers in the school. A school's social, cultural and economic context is another important component of "learning environment" that influence the teacher trainee's performance (Allen, 2009).

The physical environment is designed in such a way that obstructs the learning process although researches have established a close correlation between the amount of work individual do and its physical environment. It stands to reason that a student sitting in an insufferably hot, airless room listening to a lecture on cryogenics would not learn as much as he would in a cool, comfortable space. Unfortunately, school buildings are designed to attract people from outside but they failed to provide a safe and comfortable internal atmosphere for students. Therefore, this study sought to establish the influence of physical environment on teachers' satisfaction.

Physical environment refers to physical characteristics of the room. Physical classroom environment is a combination of different things i.e., lighting, temperature, ventilation system, size of the room, floor, walls, desks, chairs, rugs, whiteboards, computers etc. Teacher and students are considered the main elements of the

classroom environment. Favourable physical environment has a significant positive effect on the efficiency of any organization and acts as catalysing agent to provide a straight way for achieving predetermined objectives of an organization. But unfortunately, physical environment in our classroom is not conducive for smooth teaching learning process resulting fatigue and frustration among the students.

Research studies on the classroom environment have revealed that physical arrangement plays a vital role in teaching learning process. The learning setting is comprised of different things i.e., learners, teachers and the physical environment (Lippman, 2010). Physical environment is simply defined as the physical characteristics of the room. It refers to the different things i.e., size of the room, lighting, degree of temperature, condition of classroom floor whether it is carpeted or just concrete etc. (www.enotes.com).

Physical classroom environment refers to the physical room in which teacher and learners are the main element including its spatial elements i.e., floor, windows, walls as well as other classroom equipment's i.e., desks, chairs, rugs, chalkboards, tack boards, easels, counters and computer equipment but not limited to these things (Fisher, 2008). Physical environment can affect students' comfort and also their ability to learn to some extent. Students who are comfortable are likely to get much information as compared to those who are uncomfortable.

Besides, the physical atmosphere can also affect the morale of the learners. Unfavourable classroom environment can discourage the learners and they become less willing to learn (www.enotes.com). Physical environment plays a central role in any activity and makes it more conducive, successful and achievable. According to

Oni (1992) and Hallak (1990), physical facilities compose a strategic factor in the operation and functioning of an organization as they determine the excellent performance of any social organization or system including education.

Physical facilities are one of the stimulating factors that play a fundamental role in improving academic achievement in the school system. These include; school buildings, accommodation, classrooms, libraries, furniture, laboratories, recreational equipment's, apparatus and other instructional materials. Furthermore, their availability, relevancy and sufficiency affect academic achievement positively. On the other hand, poor school buildings and overcrowded classrooms affect academic achievement negatively. Taylor and Vlastos (2009) found the relationship between environment and design within the classroom from a theoretical perspective. They found that physical environment of the classroom acts as "Silent curriculum". It means that classroom environmental design can facilitate and improve the learning process like the overt curriculum.

Unfortunately, educational institutions lack of physical facilities which results in malfunctioning of these institutions. Poor and inadequate facilities affect the overall performance of the institutions. Sufficient facilities promote academic achievement and ensure to strengthen the overall institutional performance. While unattractive and old school buildings; cracked classroom walls and floors; lack of toilets; lack of desks and benches; lack of transport facility; lack of proper security system; lack of drinking water; lack of power supply; lack of playgrounds; lack of teaching staff; lack of sufficient classrooms; overcrowded classrooms; lack of educational technology; lack of first aids facility, negatively affect academic achievement of the institutions.

Therefore, it is right to say that academic achievement has a close link with the availability of educational facilities (Hussain *et al.*, 2012).

There are several factors of classroom physical environment i.e. visual factor, acoustic factor, thermal factor, spatial factor and time factor. Visual factor refers to the quality of lighting in different parts of the classroom. It is determined by the level of natural and artificial light available in the classroom. It also refers to the way by which the classroom environment is arranged i.e. visually interesting, creating a favourable atmosphere and any unwanted disruptions e.g. windows overlooking playgrounds etc. One of the most critical physical characteristics of classroom is lighting. The importance of an appropriate visual environment for learning task deserves careful consideration. The visual environment affects a learner's ability to perceive visual stimuli and affects his/her mental attitude and thus, performance. The lighting of a school should be considered on active element of the total educational environment, good lighting contributes significantly to the aesthetics and psychological character of the teaching space; pupils perform well than in a dark classroom.

The ability of individuals in school to concentrate on instructions is strongly influenced by factors such as lighting. Classroom lighting plays a particularly critical role because of the direct relationship between good lighting and pupils' performance. Pupils cannot study unless lighting is adequate. The effectiveness of information collection is reducing in bad light seeing in bad light can lead to the development of ineffective programming of the information collection process which may become habitual. Bad light leads to discomfort and poor academic performance.

Acoustic factor is an important factor as we mostly depend upon verbal communication in our classroom. Noise level mainly depends upon school design, classroom organization and teaching methodologies applied during a lesson (Basit, 2005). Poor classroom acoustics can adversely affect learning environment for many students. Constant noise exposure can damage cognitive performance and functioning (Higgins, Hall, Wall, Woolner and McCaughey 2005). Thermal factor refers to the heating and ventilation of the classroom and are generally out of the teachers' control as they are climate variables. It plays a fundamental role in making classroom atmosphere favourable and comfortable and hence affects the behaviour and performance. Spatial factor relates to the space management and has a great impact on behaviour particularly on communication. Time factor refers to the amount of time a student is participating in learning process i.e., the number of minutes the student is actively participating in teacher directed lessons and activities (Basit, 2005). Therefore, it is concluded that physical environment of classroom comprises of classroom size and structure, furniture, seating arrangement, instructional technologies, room heater, ceiling fans, curtains, cupboard, equipment's, lighting, ventilation etc.

Proper arrangement of classroom environment plays a remarkable role in making instructional process more effective and establishes an atmosphere favourable and encouraging to learning. The quality of the physical classroom setting significantly affects academic achievement of the students. Physical facilities in classrooms ensure effective and successful teaching learning process. Without these facilities, effective and fruitful teaching learning process is not possible. Students get more information

from their teachers in well facilitated classrooms and consequently they show good performance.

On the other hand, if students feel uncomfortable in classroom then they will fail to get more information from their teachers. Lyons (2001) stated that poor school facilities adversely impact teachers' effectiveness and also their performance. Consequently, it negatively affects student achievement. The achievement in cognitive and affective learning outcomes were repeatedly associated with classrooms environment, which were perceived as having greater cohesiveness, satisfaction, goal direction, organization and less friction.

Temperature and ventilation systems inside classroom are crucial factors that affect classroom learning environment. Classrooms too cold or too hot negatively affect students' performance and concentration as they feel uncomfortable in such conditions. A high temperature and humidity creates physiological and psychological problems which expedite fatigue, causes people to work more slowly, apply much efforts and causes to make more mistakes and errors. The classroom climate should be cautiously managed not only to provide physical comfort but also to serve as a positive factor in the learning process by stimulating attentiveness and concentration. To maintain such a climate, the atmosphere must be treated to simultaneously controlled temperature, humidity, cleanliness and circulation.

Earthman (2004) established that temperature, heating and air quality are the fundamental elements for the educational attainment of students. Culp (2006) found that success can be ensured by using visual displays in classroom. According to WinterBottom and Wilkins (2009), there are numerous aspects of lighting to be kept

in mind while taking into account this environmental characteristic of classroom. Classroom lighting consists of undetectable light, illumination at a student's desk, lighting from projection screens and windows. Improper lighting negatively affects academic achievement and promotes distress and obstruction for students in the classroom.

Proper arrangement of furniture also plays a vital and crucial role in classroom functioning. Furniture is arranged with the intention that students may feel comfortable and they may be adjusted to the primary sources or different sources of information e.g., the teacher, instructional materials, while at the same time having accessibility to other sources or the activities e.g., work areas, computers without creating disturbance in the classroom (Nitsaisook and Anderson, 1989). Higgins, *et al.*, (2005) noted that desk arrangement can affect students' achievement and attention. Halstead (1974) states, "A student in the classroom is properly seated if he has a clear view of the instructor, is provided with suitable writing surface and a place for book storage, is reasonably comfortable and is so situated that persons going to and from adjacent seats will not disturb him".

Patton, *et al.*, (2001) found that majority (94%) of the K-3 teachers use a semicircle or cluster to arrange the desks in their classrooms. The teachers responded that arrangement of desks in groups has several advantages i.e., encouraging cooperative learning, building a sense of class community and making the best use of the space. Proper desk arrangement provides opportunities for learners to be enthusiastically engaged in learning process and creates the opportunity to work cooperatively with their colleagues. Therefore, it is imperative to make seating arrangement in such a way that it may ensure smooth functioning of instructional process.

Iqbal (2005) stated that the arrangement of classroom educational facilities and instructional spaces might be selected for learning rather teaching. Besides, it should ensure to facilitate teacher in making an atmosphere where quality learning may be promoted. Audio visual aids i.e., charts, graphs, maps, globes, radio, mock up, multimedia, computers, overhead projectors and internet are the part of classroom environment. However, these technologies are not being utilized in instructional programmes as were expected (Weiss, 2007) because the design of classroom physical environment does not support the integration of technology (Oliver and Lippman, 2007; Weiss, 2007; Suleman, *et al.*, 2011).

In the most of the developing countries educational technologies are not utilized effectively during instructional process. There are some reasons which are responsible for the unsatisfactory utilization of instructional materials. Lower quality and less quantity of educational technologies provided to schools is one of the reasons. Secondly, teachers are not trained properly for the effective utilization of education technologies for instructional process (Suleman, *et al.* 2011). Therefore, it is necessary to design classrooms in such a way that technology may be used effectively. Classrooms should be equipped with modern technologies to ensure favourable and conducive atmosphere for teaching learning process. Teacher should be given training in the utilization of technology as it is a vital component of classroom physical setting.

The literature related to physical classroom environment has primarily focused on the impact of environment on student attitudes and student achievement on the K-12 education level (Fisher 2001). Young *et al.*, (2003) stress the importance of the physical environment and note that student achievement is impacted by such factors

as lighting, noise, and climate control. The authors also describe student perception of physical environment, noting that students as young as elementary school age are aware of the physical attributes of their learning environment and have a sense of whether the environment is appropriately updated and conducive to learning.

Lyons (2001) summarizes the importance of physical environment to educational achievement by detailing the existing links in the research literature between classroom conditions and learning. The significant effect of classroom environment on concentration levels, listening, and writing is supported by research results that have found higher test scores and more positive student outlooks in upgraded learning environments. For example, Heschong (2003) found window characteristics had as much power as number of computers or teacher characteristics in explaining variations in student performance on standardized tests and Englebrecht (2003) found that classroom colour was important to student mood and productivity.

Vartabedian (2002) details the computer technology, audio visual components, and network structures that are typically included in classroom upgrades. These classrooms differ from traditional classrooms by providing a wide range of computer, media, projection, and communication equipment. Fundamentally, upgraded (smart) classrooms should reach more learners as instructors have more communication options and therefore can reach more learning styles (Conway 2000). Troup (2000) discusses the planning for overall classroom design and technology that should be inherent in university classroom upgrades. At the same time the new technology is being added, changes are usually made to other physical attributes of the classrooms such as furniture, lighting, and flooring (Troup 2000). Siegel (2003) links classroom

information technology with overall innovation level, and Conway (2000) discusses both the capabilities and limitations of the technology integrated classroom.

Murrilo and Garrido (2012) noted that School climate describe the environment that affects the behaviour of teachers and pupils at the classroom. Elements of the school climate such as the building and its arrangements reflect the children, their needs, and their educational accomplishments. Some of these elements, however, have not received much attention in studies about the academic performance in Primary Education. They described the relationship between environmental conditions in the classroom (e.g., lighting, isolation, order, cleanliness, roofing...) and the academic performance of the pupils. The results of this study highlight the strong influence of the order and cleanliness on the academic performance of the pupils.

Substandard school buildings frequently have unsafe drinking water, mouldy environments, inadequate fire alarms and fire safety, inadequate ventilation, insufficient lighting, noisy classrooms, no wiring for technology, peeling paint, and crumbling plaster (Yeoman, 2012; Filardo *et al.*, 2011). The age of a school building is a strong predictor of building condition. Older buildings are less likely to have features such as controlled temperatures, acceptable lighting, good acoustics, and wiring for technology that are necessary for a quality learning environment (Earthman, 2004). Schneider (2002) pointed out, however, that the age of the school building itself should not be used as a measure of its quality. He noted that some schools built in the 1920s and 1930s still provide, with some modernization, excellent learning environments, while many schools built in the cost-conscious 1960s and 1970s do not.

Numerous studies have concluded that pupils in substandard school buildings perform at lower levels than pupils in newer, functional buildings. Researchers have found that pupils in deteriorating school buildings score between 5 to 11 percentile points lower on standardized achievement tests than pupils in modern buildings, after controlling for income level. In addition, some experts believe that the negative impact of substandard school buildings may be cumulative and continue to increase the longer the student attends an older, deteriorating school (Filardo *et al.*, 2011).

Working condition is a factor that has modest effect on teachers' 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 behaviour 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 Houston 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 Influence of School Physical Facilities on Teachers' Satisfaction

University of Arizona Life Work Connections (2013), employees seek to be treated with respect by those they work with. A hostile work environment with rude or unpleasant co-workers usually has lower satisfaction. Managers and supervisors need to step in and mediate conflicts before they escalate into more serious problems requiring disciplinary action. Employees may need to be reminded what behaviours are considered inappropriate when interacting with co-workers. Effective managers should know their employees need recognition and praise for their efforts and accomplishments. Employees also need to know their supervisor's door is always open for them to discuss any concerns they have that are affecting their ability to do their jobs effectively and impeding their satisfaction at the office.

Caribbean Community Secretariat (2011) observed that the provision of adequate physical resources including facilities, equipment and maintenance can help in influencing attitudes and facilitating program success. Lack of facilities makes teaching ineffective for the teacher and this demoralizes the teacher no matter how determined he/she may be in achieving certain goals. In such cases the teacher is left to teach without essential facilities and where possible forced to improvise in order to make learning effective. This becomes more difficult especially in the teaching of technical subjects and science subjects, which are even compulsory in the Kenyan education system. This affects performance of the students and also demoralizes the teacher. While the vice versa is true.

Hill (2010) stated that employees spend so much time in their work environment each week and therefore it is important for companies to try to optimize their working conditions like providing spacious work areas rather than cramped ones because adequate lighting and comfortable work stations contribute to favourable work conditions. Providing productivity tools such as upgraded information technology to help employees accomplish tasks more efficiently and contributes to teachers' satisfaction as well.

Wycliffe *et al.* (2013) reported that the objectives of the 8.4.4 system were to equip learners with adequate intellectual and practical skills to enable them cope with the challenges of life in urban and rural areas. However, the system was rushed for implementation before proper groundwork and preparations were done. The teachers expected to implement it were not trained and the necessary facilities like the workshops for technical subjects, Home Science rooms, laboratories for science oriented subjects and libraries were not either not build or poorly equipped. This made it very difficult for the teachers to teach without these facilities while others were forced to improvise them. This made the teaching very challenging resulting to low morale among the teachers. As a result, the system failed to achieve its objectives.

Kelechukwu (2011) pointed out that educational administrators in schools should apply administrative theories in carrying out their administrative tasks. When the application of these theories is neglected, the results may be made manifest through strained relationships between the head, inefficiency in the pre-current and use of resources and consequently poor academic performance are likely to occur and thus may affect the teachers' motivation.

Zingeser (2012), reported that career satisfaction and teachers' satisfaction both relate to happiness with one's work life, but contribute to contentment in separate ways. Career satisfaction may be defined as the level of overall happiness experienced through one's choice of occupations. Teachers' satisfaction relates to one's current work situation and is dependent on many factors, including the marketplace, work conditions, location, and other dynamic influences. An individual may feel very certain of having made a correct career choice but be experiencing an unsatisfactory current work experience. Conversely, a current situation may have many positive components but not be fully satisfying as a career choice.

Fatima (2012) reported that the role of teacher is pivotal in education and training. It is on his teaching and guidance that the future of countless generations depends. If a teacher is satisfied with his job, much can be expected from him. A satisfied teacher might be successful in improving the quality of his/her teaching and improve the quality of students as well. Causes of stress are of much importance in establishing a satisfaction level. A teacher should be knowledgeable, humorous, flexible, upbeat, clear and concise, open, patient, a role model, able to relate theory to practice, self-confident, diversified in student's preparation, well groomed and having good personal traits in order to come close to perfection. Education is the backbone of a nation and teachers are the builder of that backbone. So teacher's satisfaction plays a vital role behind this. A large number of teachers like this profession, which impacts on their satisfaction. It differs because of male and female teacher's perspective. Female teachers are more satisfied with their professional role as a teacher than their male counterparts. The teachers identified some factors which effects their satisfaction, like, supervision (especially by head teacher) working environment,

interpersonal relationship with college, organizational policy like promotion and salary.

Many factors motivate individuals to pursue a teaching career, including the desire for personal growth and continued learning, to have a positive impact on others' lives and contribute to society, and to attain stable, secure employment (Mansfield *et al.*, 2012). Kabango (2013) reported that teachers' satisfaction is impacted by an employee's views about the fairness of the company wage scale as well as the current compensation she may be receiving. Companies need to have a mechanism in place to evaluate employee performance and provide salary increases to top performers. Opportunities to earn special incentives, such as bonuses, extra paid time off or vacations, also bring excitement and higher teachers' satisfaction to the workplace. Compared to other professions with the same education qualifications, teachers are the least paid people in the society hence the profession being regarded as useless.

Mansfield *et al.*, (2012) further found that teachers did not enter the profession for the money, but rather the intrinsic satisfaction of working with children. Yet, when they left the profession, teachers reported low pay as the second reason for leaving following the lack of efficacy. The combination of discovering teaching both difficult and financially unrewarding discourages longevity in the profession, citing reasons of dissatisfaction. They further found that high beginning salary levels attracted well trained individuals into teaching and that higher average salaries reduced teacher turnout rates.

Hightower (2011) reported that even though having a positive impact on students' achievement appears to be the prime motivator of teachers, salaries also play an

important role. Research shows that teacher behaviour is strongly affected by salary levels including the decision to enter the profession, the decision to stay in a school district and the decision to remain in or leave the teaching profession.

Baird (2013) describes a teacher's chief difficulty as poverty. There are some big prizes at the end of the profession and a few lucrative side-lines, but the average teacher in every land must be resigned to a life of genteel poverty. This makes teachers live a poor life full of bitterness and mockery from their fellow colleagues who have landed in better paying professions. This may demotivate the teacher making them inefficient in their work and developing a dislike for their job.

Lee (2014), pointed out that it is absurd to maintain within mass education the objectives of a system designed for the education of the elite. A few years ago, holding of University degree or secondary education qualifications assured students a certain social status, with the corresponding remuneration. One of the effects of present-day mass education is the impossibility of guaranteeing all students a commensurate with their qualifications. The change also affects levels of motivation the teacher can expect and utilized in his/her students. Many of those who teach have to cope with this uncertainty by pointing out that circumstances have indeed changed, thus making redundant their desire to work objectives, which no longer correspond to the circumstances existing in the society today.

Nganzi (2013) reported that teacher's satisfaction is unavoidable phenomenon in school environment. Teachers need to be motivated and reinforced in their career if they are to execute a quality job in schools. Dealing with a workload that is far too heavy and deadlines that are impossible to reach can cause satisfaction to erode for

even the most dedicated employee. Falling short of deadlines results in conflict between employees and supervisors and raises the stress level of the workplace. Many times, this environment is caused by ineffective management and poor planning. The office operates in a crisis mode because supervisors do not allow enough time for employees to perform their assigned tasks effectively or because staff levels are inadequate.

2.5 Influence of Work Environment on Teachers' Satisfaction

Studies indicate that most schools lacked the necessary facilities, equipment and materials that would promote teacher motivation and holistic development of children. According to Ngome (2002), most public centre's supported unfriendly work conditions characterized by windowless, rough mud walled and floored classrooms, and others that were iron-sheet walled and roofed. In such classrooms, temperatures went very high or very low, ventilation was inadequate, dust was a problem and pupils were easily distracted. Most of these classrooms were also congested (Gakii, 2003 and Ng'asike, 2004).

Furthermore, other teachers have been found to be dissatisfied with physical facilities. For example, a survey of K-12 teachers in Washington, D.C. cited in Buckley, *et al* (2004) found out that facility quality is an important predictor of the decision of teachers to leave their current position. To emphasize the importance of the physical environment, Hanushek, Kain and Rivkin (2004) who asserted that teachers might be willing to take lower salaries in exchange for better working conditions. This is altruism considering that the quality of school buildings affects the quality of teacher life and educational outcomes. In schools, socialization of

employees enables them to freely express their feelings, opinions, attitudes all other affairs that affect them at work place. It is therefore, a healthy system for the institutions survival, teamwork and productivity (Maicibi, 2003). This leads to higher employee productivity and satisfaction that subsequently results into good performance.

Poor working conditions such as inadequate space, noisy and uncomfortable surrounding will make the workers dissatisfied with their work. The work characteristic for teachers that are associated with dissatisfaction should be identified in order to change the working environment for continuous teachers' satisfaction. Okumbe (1998) says that workers are concerned with their work environment for their personal comfort as well as for facilitating efficiency at work. The environment should be clean, modern with adequate and appropriate tools for work. Some other studies show that employees prefer working conditions which are not dangerous and unpleasant and preferably with similar conditions to their home environment (Bennell, Bulwani & Musikanga, 2004).

A study by Munguyu (2008), revealed that work environment such as high enrolment, over-stretching of physical facilities and learning resources attributed to FPE, affected teachers' satisfaction. Teachers were highly dissatisfied with the high number of pupils they had in the class. Teacher dissatisfaction with the workload concurs with Rosenholtz and Simpson (1990), cited by Buckley *et al.*, (2004) in their revelation that the burden of non-teaching obligations affects new teachers' commitment. Further, the study by Ngome (2002) identified high workload as one of the factors contributing towards high teacher attrition. An investigation by Karugu (1980) found

that teachers were motivated to stay in job if physical, social, economic, and security dimensions associated with conditions of work were satisfactory.

Some teachers experience stagnation and when this occurs, they are demoralized, frustrated and dissatisfied with their jobs and look elsewhere for greener pasture. This dissatisfaction can also be manifested in partial commitment to work, early retirement and resignation. Work environment is an important issue that can affect the satisfaction of teachers in school projects. Obineli (2013) argued that inspired workplace will result in inspired workers and draws attention to the importance for work performance, the atmosphere, quality and style of buildings and offices.

Environment conditions enhance working and such conditions like suitable temperature, humidity, ventilation, lighting, cleanliness of the workplace and adequate tools and equipment (such as public address system, computer, and resource materials for teaching, good offices) are important in teachers' satisfaction. Good working conditions provide greater physical comfort for teachers and boost their morale. While very poor conditions breed frustration and regret and consequently a high sense of dissatisfaction.

Obineli (2013) reported that there are several factors that may affect the level of teachers' satisfaction and these are salary, promotion, work environment and in-service-training. All over the world, people engage in work in order to receive pay with which to acquire necessities and luxuries needed to better their lives. In addition, workers (and in this case, teachers) also need money to enable them to care for members of the extended family. Some teachers experience stagnation and when this occurs, they are demoralized, frustrated and dissatisfied with their jobs and look

elsewhere for greener pasture. This dissatisfaction can also be manifested in partial commitment to work, early retirement and resignation. The work environment is an important issue that can affect the satisfaction of teachers.

Obineli (2010) argued that inspired workplace will result in inspired workers and draws attention to the importance for work performance, the atmosphere, quality and style of buildings and offices. The work environment embraces working. Thus conditions such as the temperature, humidity, ventilation, lighting, noise, cleanliness of the workplace and adequate tools and equipment (such as public address system, computer, and resource materials for teaching, good offices). Good working conditions provide greater physical comfort for teachers and boost their morale. While very poor conditions breed frustration and regret and consequently a high sense of dissatisfaction.

Okonkwo and Obineli (2011) stressed that many teachers in public schools lack motivation and teachers' satisfaction because of poor salary and the poor condition of the environment of their workplace. This is because a workplace environment with essential facilities is a prelude to teachers' satisfaction among workers. If secondary school teachers are well paid, they can still go an extra mile (like the research subjects) to ensure that they have a stimulating working environment. While these studies highlight the importance of the work environment on the employee satisfaction, there is no study done on the influence of the work environment on the teacher's satisfaction in the County, hence a knowledge gap.

2.6 Influence of Classroom Arrangement and Teachers' Satisfaction

The quality of school buildings is critically important in the drive for improving education. Good quality facilities provide teachers and students with supportive environments that are responsive to their changing needs and could make a real difference to learning and teaching. Successful teaching and learning depends on the availability of crucial resources, such as learning materials and a teaching and learning environment that is conducive, (United Nations Educational, Scientific and Cultural Organization 2000).

Supporting the youngest learners is a winning strategy for improving the equity, health and resilience of our communities. Especially in developed countries, center-based non-maternal care for infants and toddlers is emerging as an effective support for families, with average enrolment at age 4 for countries in the Organisation for Economic Co-operation and Development (OECD) rising from 79% in 2005 to 84% in 2011 (OECD, 2013).

Among 37 countries included in the OECD, the United States is quickly catching up, with enrolment for the same years rising from 65% to 78%. For children age 3 in the United States, the numbers are 35% and 50%. Of 20.4M children under 5 years of age in the United States, 61% were in a regular care arrangement in 2011 and 23.5%, or 4.8M, were in center-based non-maternal care. High-quality early learning schools can be especially impactful for families below the federal poverty line (Burger, 2010) who spend 30% of their income on childcare, compared to 8% for families not in poverty (Laughlin, 2013).

In Africa, this declaration was domesticated by the Dakar Framework of Action (2000). The participants identified several elements necessary for quality education among them motivated students, well trained teachers using actual learning techniques, adequate facilities and materials, local language curriculum that builds on teachers and learners knowledge and experience, welcoming gender sensitive, health, safe environment that encourage learning and accurate assessment of learning outcomes UNESCO, (2000). The importance of education was to meet the goals of EFA which was set by 2015. In order to expand and improve all aspects of quality education and ensure excellence to provide conducive environment which enhances teaching and learning.

Burchinal *et al.*, (2000) and La Paro *et al.*, (2009) supports the importance of high-quality programs in helping children prepare for kindergarten. There is less evidence regarding the contribution of the physical environment to child outcomes in early learning schools. The outcome variable for the study is teachers' satisfaction with indoor environmental quality (IEQ), based on the assumption that teachers who are more satisfied provide higher quality interactions with children. The child-teacher interaction is a fundamental feature of program quality models in the ECE literature (Essa & Burnham, 2001; Dickinson, 2006).

School with physical infrastructure and environment that inspire learners to want to come to school and learn and teachers to teach good infrastructure provide an appealing environment that will stimulate their minds to learn and improve their performance. A good school infrastructure environment includes; building in good shape including an adequate number of well-organized classrooms, sufficient blackboards, tables, desks, benches, chairs, and adequate number of sanitation facility,

access to adequate clean drinking water, electricity, ventilation and light, fire exits and first aid kit, medical assistance, canteen, sufficient recreation ground, library, laboratory, computer facilities UNESCO, (2000).

School infrastructure is an essential part of primary schools to realizing the objectives of education. Inadequate school infrastructure may cause irritation and friction while a planned infrastructure is a center of satisfactory students learning that led to the improvement of academic performance. If there is improved standard of infrastructure of primary school, there will be remarkable development in the education system as a whole. Classroom Infrastructure facilities can be either permanent or temporary structures. The structures should be appropriate, adequate and properly located, devoid of any risks to users or to those around them. They should also comply with the provisions of the Education Act (Cap 211), Public Health Act (Cap 242) and Ministry of Public Works building regulations/standard. The school should ensure classrooms are clean well maintained, safe and properly utilized Ministry of education, (2008). It is important to observe the above with regard to the various types of school buildings.

Classrooms are important infrastructures in a school setting since learners spend most of their time in these facilities. It is important to observe the following: The size of the classroom, in terms of length and width, should be as specified in the Ministry of Education building specifications i.e. 7.5m x 5.85m or 7.5m x 6.0m. Such classrooms should accommodate a maximum of 30 learners in one-sitter desks or 40 learners in two-sitter desks in line with the provisions of the Ministry of Education circular on Health and Safety Standards in Educational Institutions (2001). The doorways should

be adequate for emergency purposes, open outwards and should not be locked from outside at any time when learners are inside.

Classroom windows must be without grills and should be easy to open. The classrooms should be properly lit and ventilated. The floors should be level and kept clean always. For cemented floors, any cracks should be repaired in good time. Similarly, for mud walls and floors teachers should ensure that they are regularly smeared with fresh mud and floors smeared with cow dung to prevent the development of cracks and the generation of dust that can pose risks to the health of both teachers and learners. In all cases, efforts should be made to cement all the classroom floors. Each block should be fitted with serviced fire extinguishers Ministry of education, (2008).

Regular inspection of classroom buildings, halls and stairways should be carried out and immediate measures taken to correct any problems noticed. The furniture in classrooms, especially the desks, should be appropriate for use by both male and female learners. Poorly constructed or inappropriate desks can lead to physical deformities such as curvature of spine, contraction of chest, roundness of shoulders or a confirmed stoop. They can also create tension and fatigue among learners and that brings discomfort to learners during teaching and learning. The class teacher should ensure that the desks are arranged in a manner that facilitates easy and orderly movement of learners in the classroom, ideally each desk should have no more than three learners and the space between any two desks should be at least 2 feet.

The physical environment affects building users in numerous ways; as teachers' satisfaction Kamarulzaman *et al.*, (2011), learning outcomes Schneider, (2002);

Bailey, (2009) and health (Mendell & Heath, 2005; Fisk *et al.*, 2011). The amount of room available to occupants affects their behaviour, including satisfaction and achievement. Evans (2006) summarized the literature on crowding regarding young children, drawing the strong conclusion that increased occupant density is associated with greater levels of social withdrawal and aggression. Lee and Brand (2005) used structural equation modelling with 215 workers from five companies to determine that those with convenient access to meeting spaces reported higher teachers' satisfaction.

The way spaces are organized regarding visual privacy and adjacency are also important features for behavioural outcomes. Maxwell (2007) developed a rating scale to emphasize features of the physical environment that provide rich learning opportunities. The adjacency subscale of the tool includes compatible or complementary areas; support spaces; access to large motor development play; and personal care. For 3- and 4-year olds, the adjacency subscale predicted child competence. A limitation of the study was the small number of subjects ($N=79$) forming 4 intact classrooms, 2 each in different schools. The study presents compelling evidence for the hypotheses that younger children benefit more from a high-quality physical environment and the physical organization of the classroom is important for child confidence.

Tanner (2008, 2009) developed the Design Appraisal Scale for Elementary schools (DASE), an observational tool based on Christopher Alexander's theory of patterns. Categories included in the tool, such as circulation, meeting places, daylight and views, explained differences in student test scores. While Maxwell's tool considered classroom features, DASE includes the school and surroundings to create a contextual rating of children's experience with the entire school.

Teachers preferred classrooms with windows, daylight and views, but these were not a top priority. It is worth noting that much research on open offices suggests that employees find them unsatisfactory (Brennan *et al.*, 2002), which might be relevant given that in many ways a secondary school classroom resembles an open office, in particular the lack of personal, or personalised, space. Molenbroek *et al.*, (2003) argued that the design of classroom furniture should be based on the student's popliteal height rather than body height. Such a mismatch was also found by Panagiotopoulou *et al.*, (2004). A further issue that relates to physical discomfort, and which could be solved through design, is that of students carrying books and equipment. Periodically, concerns are raised about students carrying too much and sometimes lockers are installed to minimise the problem. In Heshong's (2003) study, teachers were reported to desire more space, a good location and quiet environment, and have lots of storage and water in the classroom.

One of the more basic variables that can be altered in the classroom is the arrangement of the students' desks and chairs, and this issue has been quite well researched and debated by educationalists. It is pointed out by these authors that the vital mediating element between the physical environment and improved classroom climate could be the reduction in negative interactions between teacher and student, since the student in the rows arrangement is able to concentrate and so provokes fewer admonishments. This plausible chain of events has relevance for any alteration to the physical environment. Within the rows arrangement, there seem to be differences in student involvement dependent on position, with an 'action zone' of increased involvement across the front and down the middle of the room. There is some

discussion about whether this is more accurately characterised as a 'T' shape or as a triangle (Marx *et al*, 2000) but there is agreement about the existence of such a zone.

Although Horne-Martin (2002) argues that it is a very controlling and teacher-dominated approach, Marx *et al.* (2000) found that more questions are asked by children when seated in this arrangement than when they are in rows. Alternatively, classrooms with ample space are more conducive to providing appropriate learning environments for students and associated with increased student engagement and learning. Classroom space is particularly relevant with the current emphasis on 21st century learning such as ensuring students can work in teams, problem solve, and communicate effectively. Classrooms with adequate space to reconfigure seating arrangements facilitate the use of different teaching methods that are aligned to 21st century skills. Creating private study areas as well as smaller learning centre's reduces visual and auditory interruptions, and is positively related to student development and achievement.

The impact of classroom size on achievement can therefore be ambiguous, depending on the instructor's teaching method and student motivation. A well planned and organized layout of physical classroom infrastructure do much to banish apathy, supplement inadequacy of books as well as arouse students interest by giving them something practical to see, do and at the same time helping to train them to think things out themselves. In Kenya a number of studies have been conducted to assess the level of availability and adequacy of classroom facilities in the schools. An evaluation which was conducted by KIE in the year 2007 to investigate how much prepared schools were for the new curriculum showed most of the sampled schools had inadequate classrooms for teaching and learning.

The class size could also affect the teacher's allocation of time and, hence, effectiveness, in other ways, too - for example, how much material can be covered. Teachers may choose different methods of teaching and assessment when they have smaller classes. For example, they may assign more writing, or provide more feedback on pupils' written work, or use open-ended assessments, or encourage more discussions, all activities that maybe more feasible with a smaller number of pupils. Exposure to a particular learning environment may affect learning over the time period of exposure, or it may have longer term or delayed effects (e.g., by increasing self-esteem or cognitive developments that have lasting effects).

The Free Primary Education was aimed at reducing illiteracy levels in the country as it aims that by 2015 every Kenyan will be able to read and write (Universal Primary Education and Education for All) by the year 2015. This policy has however worsened the quality of education due to high enrolments with limited physical infrastructure such as classrooms. The provision of Free Day Secondary Education (FDSE) funds is meant to cater for tuition and operations costs in schools. A large amount of the FDSE funds go to tuition vote head for the purchase of classroom teaching and learning materials to enhance students' academic achievement, (Ministry of Education, 2009).

A good infrastructure indicates a good school. A good infrastructure includes; building in good shape of benches, chairs, access to drinking water, electricity, ventilation and light, fire exits and first aid kit canteen and computer facilities UNESCO (2000). For these reasons, changes to the class size are considered a potential means of changing how much pupils learn. Not only is class size potentially

one of the key variables in the “production” of learning or knowledge, it is one of the simplest variables for policymakers to manipulate.

However, the amount of student learning is dependent on many different factors. Some are related to the classroom and school environment in which the class takes place, but others are related to the pupils’ own background and motivation and broader community influences. The important role of the teachers in the teaching-learning process is unquestionable. Teachers have a lot of influence on their classroom practices. Teachers have and apply specific abilities without which their influence may not be reflected in their pupils’ performance in their subject. Generally, good teaching is best done in classes with small numbers that allow for individual attention. The number of pupils in a class has the potential to affect how much is learned in a number of different ways. For example, it could affect how pupils interact with each other - the level of social engagement. This may result, for example, in more or less noise and disruptive behaviour, which in turn affect the kinds of activities the teacher is able to promote.

Provision of quality education is enhanced by providing adequate physical infrastructure. Since time immemorial human beings have done a lot to facilitate their lives with the entire physical infrastructure in the world. Physical infrastructure include laboratory, library, dormitory, solid waste disposals and classrooms. This plays an important role in enhancing safe and clean environment which is conducive for high achievement of students and physical comfort. Physical facilities play a key role in the attainment of the school’s intended objectives and overall quality performance in national examinations.

Public schools are often characterized by lack of infrastructure facilities such as; adequate classrooms, latrines, hostels and laboratories. Ironically the introduction of Free Primary and Secondary Education has been touted as an accelerator of the aforementioned problems. Since its inception in 2003, more students now attend school, however a number of challenges continue to plague the implementation of these programs including overstretched and overcrowded facilities such as classrooms, latrines, hostels and laboratories. It may be a fact that dilapidated; crowded or uncomfortable school infrastructure leads to low morale among the students, teachers and the parents.

2.7 Related Empirical Studies

Studies on teachers' satisfaction among teachers have been done both internationally and locally. A report by House of Commons Educational and Skills Committee (2004) showed that very many teachers in Britain were resigning from their posts, most had expressed a desire to leave the profession over the next five years and recruitment had declined dramatically. Further, the report notes that teachers are said to leave service citing dissatisfaction on the pay and working conditions. In China, teacher retention has been of great concern. According to Sargent and Hannum (2003) teaching jobs in China have become increasingly varied in their compensation and at the same time good teachers have gained greater flexibility to move to better jobs in other sectors. These changes have increased the career choices of individuals, but they also mean that schools serving poor rural communities face new challenges in retaining qualified teachers.

In many developing countries and particularly in Africa, employment policy in general and specifically the education employment policy has long taken into account the need to satisfy teachers' needs and to satisfy the workers (Werner & Desimone, 2006). Onu, Madukwe and Agwu (2005) examined factors affecting satisfaction of field extension workers in Enugu State Agricultural Department Program in Nigeria using a sample of 43 extension staff randomly selected across three agricultural zones. The field extension workers indicated low level of satisfaction with their job content, conditions of service and working environment, which were subsequently identified as key factors that could enhance satisfaction among employees.

In research by Nyagaya (2015) on the factors influencing teachers' satisfaction among secondary school's white teachers in South Africa, the variables that emerged from these studies were aspects pertaining to working conditions, interpersonal relations with managers, colleagues and learners, professional development, management styles and community involvement. Factors affecting teachers' satisfaction among white teachers covered a broad spectrum and including intrinsic as well as extrinsic factors.

In Namibia, a study by George, Louw and Badenhorst (2000) on satisfaction among urban secondary school teachers used survey design and descriptive statistics (mean and standard deviations). The findings indicated that Namibian teachers experienced a lower level of satisfaction compared to an American norm group, in terms of findings by Maslach and Jackson (1986). The study also indicates that, approximately two-thirds of the Namibian teachers experienced high levels of dissatisfaction with intrinsic factors, while nearly 90% experienced an attitude towards extrinsic factors that varied from neutral to satisfy.

Research conducted by George, Louw and Badenhorst (2000) on the factors influencing satisfaction among black female teachers in South Africa indicated that all the teachers' satisfaction factors revolved around the teacher's learners, her teaching, and her own security. It was apparent that she sought her teachers' satisfaction within her classroom. Under the Kenyan situation, teachers' satisfaction and good quality work from the employer and the employee respectively dictates the performance of organizations (Chen & Li, 2002).

A study by Musyoka (2013), on the influence of provision of school physical classroom infrastructure on students' performance in K.C.S.E in Mwingi Central, Kitui County found out that schools don't have adequate facilities which negatively impacts on their academic performance. A study by Kiplangat *et al.*, (2014) on factors contributing to poor academic performance in K.C.S.E in secondary schools in Kericho Sub County found out that 56.6% disagreed while 43.4% agreed that school classroom infrastructure affect academic performance. According to the study to some extent, infrastructure does not affect academic performance. Juma (2011) links performance in examinations to state of teaching and learning resources in schools. He notes that students from poor backgrounds perform poorly in the examinations because the poor are often in areas where schools are seriously deprived of vital facilities like classrooms, an attitude of helplessness may be inculcated early into children making them feel that being in school is a waste of time.

A school that has adequate instructional materials is likely to post better quality grades than a school which has poor quality physical resources. A school with inadequate classrooms is forced to accommodate more students than recommended. A study by Onyata (2013), on school based factors influencing student academic

performance at K.C.S.E in Teso south district in Kenya. The study was done by studying the adequacy of classroom the study found out that 100% of head teachers strongly agreed that availability of physical facilities affects academic performance of students, while 87 % of class prefects agreed that availability of physical facilities affects the student's performance.

Studies on the effect of school environment on academic performance attest to the fact that school environment that is not conducive for learning may lead to underperformance Chimombe, (2011). Provision of adequate learning facilities at all levels including equipment enhances the quality and relevance of imparted skills of learners Lumuli, (2009) learning involves the interaction of students with the environment. Nyagaya (2015) conducted a study on the factors influencing teacher's level of teachers' satisfaction in public primary schools in Kayole Division, Embakasi Sub County, Kenya on 20 public primary schools with 220 respondents using descriptive research design. The study revealed that remuneration influenced positively teachers' level of teachers' satisfaction. Concerning working conditions, the study concluded that the inadequacy of school facilities led to teachers' dissatisfaction with their job. The number of lessons taught per week (workload) also affected teachers' level of teachers' satisfaction. The teacher being an instrument of success requires physical, psychological, economic and social comfort.

2.8 Research Gap

Many studies have been conducted on teachers working conditions and teachers' satisfaction for many years now and hundreds of articles have been published (Zembylas & Papanastasiou, 2006). However, most of the studies have been done in

the developed countries such as United States of America, United Kingdom, Canada and New Zealand; only a few such studies to my knowledge, have been undertaken in the developing countries of Africa and Tanzania in particular. This suggests that there is more literature on teachers working conditions and teachers' satisfaction from the developed countries than there is from developing countries and Tanzania in particular.

The few studies in Kenya and Tanzania (Ngimbudzi, 2009; Kimengi, 1991) looked at factors influencing teachers' level of teachers' satisfaction at the primary school levels. Most of these studies used complicated statistical tools for data analysis which a difficult for understanding of educational administrators and government officials, they also use large population and sample from urban settlements. However, none of these studies looked at the influence of physical environment on teachers' satisfaction in public primary school in Elgeyo Marakwet County. It is these gaps in literature that this study attempted to fill by undertaking this study in Elgeyo Marakwet County.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presented the research design, methodology, location of the study, target population, sampling techniques along with the sample size, data collection methods, instruments of data collection, reliability and validity of the data collection instruments and finally the data analysis are presented in the chapter.

3.2 Research Design

This study adopted descriptive survey design. The design enabled the researcher to describe the state of affairs as they were in regard to school physical environment and teachers' satisfaction in Elgeyo Marakwet County and report the findings (Kombo & Tromp, 2006). According to Kothari (2008), descriptive survey is efficient in collecting descriptive data regarding the characteristics of populations to justify current conditions and practices. The design involves gathering of facts or obtaining pertinent and precise information concerning the current status of phenomenon and whenever possible draw possible conclusions from the facts discovered (Orodho 2008). Descriptive surveys are widely used to obtain data useful in evaluating present practices and providing for decision. In this study, descriptive survey gave a detailed description of the influence of physical environment on teachers' satisfaction in Elgeyo Marakwet, which may be generalized to other parts of Kenya. In this study, the design had enough provision to protect against bias and maximize reliability (Kothari, 2008). It sought to give actual facts on how school physical environment

influence teachers' satisfaction in public primary schools in Elgeyo Marakwet County by involving a broad category of respondents.

3.2.1 Variables

The independent variables of the study included the various school physical environment aspects that influence teachers' satisfaction such as school physical appearance, teacher working environment and workspace arrangement. On the other hand, the dependent variable was the level of satisfaction of primary school teachers in Elgeyo Marakwet County.

3.2.2 Research Methodology

The study adopted both quantitative and qualitative research paradigms in order to obtain maximum information concerning the study topic. Quantitative methods were able to generate numerical data that was transformed into useable statistics. It was used to quantify attitudes, opinions, behaviours and other defined variables and generalized results from a larger sample population. Qualitative paradigm, on the other hand, is primarily exploratory in nature. It was used to gain an understanding of underlying reasons, opinions and motivations regarding to the school physical environment influencing teachers' satisfaction. It provided insights into the problem of teacher dissatisfaction and was used to uncover trends in thought and opinions and dived deeper into how school physical environment affect teachers' satisfaction. Interview guide was used to collect qualitative information from key respondents namely teachers, the head teachers, CSOs and Assistant County Directors of Education. While quantitative paradigm provided the hard data needed to meet required objectives and to test the hypotheses (for instance, objectives 1-3 of this

study), qualitative method provided the in-depth explanation by considering participants' feelings on the study problem. This method was handy in generating information concerning the recommendations on viable measures that would be implemented in order to improve satisfaction among teachers in Elgeyo Marakwet County. Using both paradigms was advantageous in terms of complimentary since each method had some bias. For example, the subjectivity associated with qualitative method was minimized by the objectivity of quantitative method. Thus, the findings derived from one approach validated the other.

3.3 Location of the Study

The study was conducted in Elgeyo Marakwet County which is located in the former Rift Valley Province with Iten town as the head quarter. It borders the following Counties: West Pokot to the North, Baringo County to the East, South East and South, Uasin Gishu to the South West and West, and Trans Nzoia to the North West. The County has an area of 3,029.8 km² with temperatures ranging from a minimum of 14°C to a maximum of 24°C. The rainfall ranges between 400mm and 1,400mm per annum. The County is mainly occupied by the Keiyo and Marakwet who form part of the larger culturally and linguistically related ethnic groups known as the Kalenjin. The study was conducted in the County because there is a dearth of knowledge on the influence of school physical environment on teachers' satisfaction. This has been as a result of several studies on teachers' satisfaction focusing on factors such as remuneration, leadership styles, good interpersonal relationship and psychosocial influences but rarely on physical environment of the school which also play a big role in sustaining teachers' satisfaction and consequently productivity and performance. Therefore, the exhibition of teacher dissatisfaction that has been

manifested throughout the county, majorly through stress, fluctuating academic performance, absenteeism, workload among other factors in the study area.

3.4 Target Population

Mugenda and Mugenda, (2003) define population as an entire group of individuals or objects having a common observable characteristic. In addition, according to Oso and Onen (2005), target population is the total number of the subjects of interest to the researcher. The target population of this study comprised all public primary school teachers in Elgeyo Marakwet County. The unit of analysis in this study was the public primary school. The County has 4 Sub-Counties headed by Sub-County Directors of Education with 26 educational zones headed by Curriculum Support Officers (CSOs). The county has 345 public primary schools with a population of 3,771 public primary school teachers. The study used stratified, purposive and simple random samplings to select respondents. A total of 140 participants (where 38 were males and 102 being females) from Keiyo North Sub-County having a total population of 1,295 primary school teachers (221 males and 1,074 females) were sampled from 11 schools with 11 teachers per school to give 121 teachers (24 males and 97 females), 11 head teachers (8 males and 3 females), 7 Curriculum Support Officers (5 males and 2 females) and 1 sub-county director (1 male). Keiyo North Sub-County was chosen as the area of study because it has some public primary schools located in rural areas while others in urban areas unlike other three Sub Counties and it is the Headquarters of Elgeyo Marakwet County.

3.5 Sampling Techniques and Sample Size

Sampling is a procedure, process or technique of choosing a sub-group from a

population to participate in the study (Ogula, 2005), while a sample is a smaller group or sub-group obtained from the accessible population (Mugenda & Mugenda, 2003). Stratified and simple random sampling were used to obtain the sample for this study. Stratified sampling is a probability sampling technique where the researcher divides the entire population into different subgroups or strata. From each stratum the researcher randomly selects the respondents proportionally from each category and in this case either male teachers or female teachers. Stratified random sampling was appropriate as it enables the researcher to represent not only the overall population but also key sub-groups of the population. Stratification helped to reduce standard error by providing some control over variance. The technique provided a better comparison across strata (Saunders *et. al.*, 2007).

The researcher used simple random sampling technique to select a respondent from each stratum that involved in the study. It was appropriate because the entire population is relatively large, diverse and sparsely distributed, hence random sampling technique would help to achieve the desired objective. This technique was appropriate for the study as it is cost effective and efficient in administration.

The sampling technique gave each respondent in the population an equal probability of being the sample. This allowed equal representation of all individuals in the defined population to be selected as a part of the sample (Kombo & Tromp, 2006). This is important as it helps reduce biases that may arise. This technique was appropriate for the study, since it is a representative sample and that all the members in the target population were represented.

3.5.1 Sample Size

A sample size is a small group obtained from the accessible population. In this study the sample size was determined using Krejcie and Morgan (1970) whereby; a total of 1422 participants required a sample of 140 participants using the following formula;

$$S = X^2NP (1-P)/ d^2 (N-1) + X^2P$$

(1-P) S = required sample size

X^2 = the table value of chi-square for one degree of freedom at the desired

Confidence level

N = the population size

P = the population proportion (assumed to be .50 since this would provide the maximum sample size)

d = the degree of accuracy expressed as a proportion (.05).

The county has 4 sub-counties with 26 educational zones headed by 26 Curriculum Support Officers (CSOs). The county has 345 public primary schools with a population of 3,771 public primary school teachers. The study used stratified, purposive and simple random samplings to select respondents. Stratified sampling was used from the known distribution of target population. The researcher adopts this design because each category was allocated a sample of participants depending on its proportion to the total number of participants as summarized in table 3.2. A total of 140 participants (where 38 were males and 102 being females) from Keiyo North Sub-County having a total population of 1,295 primary school teachers (221 males and 1,074 females) were sampled from 11 schools with 11 teachers per school to give

121 teachers (24 males and 97 females), 11 head teachers (8 males and 3 females), 7 Curriculum Support Officers (5 males and 2 females) and 1 sub-county director (1 male).

Table 3.1: Sample Size

category	Target population		Sample size	
	Male	Female	Male	Female
Head teachers	87	29	8	3
Teachers	221	1074	24	97
CSOs	8	2	5	2
Ass. County Directors	1	0	1	0
Total	1422		140	

3.6 Research Instruments

Data collection is a precise, systematic method of gathering information relevant to research purpose, or of addressing research objectives and research questions or hypotheses. Both primary and secondary data was employed in the study. Primary data was collected through direct communication with the respondents using questionnaires and interview schedule as the main source of data as well as observation. Secondary data was obtained from, annual reports, bulletins, newspaper extracts, government’s publications and previous related research works.

Rating scales used in questionnaires provided quantitative data which measure success. The combination of these methods helped complement the advantages of each methodology with those of the other making a stronger research design that yield

more valid and reliable findings. This involved the techniques adopted by the researcher in the data collection. In order to meet its objectives, this study employed two distinct data collection instruments, were questionnaire and interview schedule.

3.6.1 Questionnaire

A questionnaire contains a set of questions which can be answered by the research participants in a set of ways. According to Kombo and Tromp (2006), a questionnaire is a research instrument that is used to gather data over a large sample. Most questionnaires are designed to gather already structured data and so include a set of answers which the respondent can choose from, although some may include more open-ended questions which allow the respondent to answer the question in their own way, others give a provision where all the participants are asked the same questions, in the same order and using the same wording and have the same set of answers to choose from (Matthews & Ross 2010). Basing on this argument, the researcher was able to collect information from various schools over a short period of time.

According to Kothari (2008), questionnaires are usually free from the interview bias as the answers are in respondent's own words. Respondents have adequate time to give well thought out answers. Orodho (2008) also argues that a questionnaire is an efficient research tool which when used the researcher will obtain personal ideas from a respondent. A questionnaire was preferred for collecting data in this study because the questions, wordings and sequence were fixed and identical to all respondents. Secondly, it deemed to have the advantage of obtaining standard responses to items, making it possible to compare between sets of data. Thirdly, it allowed the participants to give their own opinion on the issue at stake for instance the Likert scale questions (Matthews & Ross 2010).

The questionnaire was in two parts: The first part covered background information of the respondents and the second part of the unstructured questions were used to encourage the respondent to give an in-depth and felt response without feeling held back in revealing of any information but the main focus being to collect the data from the respondents to answer the research questions. Questionnaires were used to collect data from teachers since they are cheap to administer to respondents who are scattered over a large area.

3.6.2 Interview Schedule

An interview is a particular type of conversation between two or more people. Usually the interview is controlled by one person who asks questions. According to Orodho (2008), people are willing to communicate orally than in writing as they would provide data more readily and full than on a questionnaire. In addition to the questionnaire for teachers, interview schedule was a semi structured in that it was a mix of unstructured and structured questionnaires. Some of the questions and their sequence were determined in advance, while others were evolved as the interview proceeds to enable the researcher obtain vital and crucial information in relation to the school physical environment that influence teachers' satisfaction from head teachers, Curriculum Support Officers and assistant county directors. Basing on Kumar (2006), the advantages of using a structured interview is that; the researcher will be able to clarify any queries concerning the questions. This ensured that answers were reliably aggregated and allowed comparisons to be made.

The respondents were able to discover, uncover or generate the rules by which they are playing this particular game. The interviewer became more adept at interviewing,

in general, in terms of the strategies which are appropriate for eliciting responses (Tight, Hughes & Blaxter, 2006). A semi structured interview guide was used to gather information from head teachers, in addition to the questionnaire for teachers, interview schedule was a semi structured in that it was a mix of unstructured and structured questionnaires. Some of the questions and their sequence were determined in advance, while others were evolved as the interview proceeds to enable the researcher obtain vital and crucial information in relation to the school physical environment that influence teachers' satisfaction from head teachers, Curriculum Support Officers and assistant county directors. An interview schedule enabled the researcher to obtain vital and crucial information in relation to the school physical environment that influence teachers' satisfaction.

3.6.3 Observation

Direct observation was used to acquire data on things that can be discerned by viewing. Several visits were made in the various primary schools across the county to observe physical environment and the conditions in relation to working environment standards. Primary school teachers form a vital segment of the basic education as they impart knowledge to learners. Therefore, prioritising their professional need is commendable to ensure that they fulfil their professional roles. This method was handy in confirming ways of providing a conducive working environment for teachers that is necessary to increase productivity as well as satisfactory.

3.7 Piloting the Study

Before the actual data was collected, piloting of the research instruments was carried out in five schools. The pilot schools were selected, one from Keiyo South Sub

County, one from Keiyo North Sub County, one from Marakwet East Sub County and another one from Marakwet West Sub County. These sub-counties were selected for piloting because the exhibitions of teacher dissatisfaction were manifested throughout the area with similar characteristics as the area selected for the study. During pilot study 10 teachers comprising of 4 males and 6 females were picked randomly. Test re-test method was used to test for reliability of the instrument. The instruments were administered to the respondents and re-administered to the same respondents after one week. This was in line with (Shuttleworth, 2009), who stated that the instrument should be administered at two different times and then the correlation between the two sets of scores computed. This was done using Pearson's Product Moment correlation coefficient Formula. A correlation coefficient of 0.8 was not obtained and thus the instrument was deemed to mean that the instrument was unreliable and measurable. The pilot study enabled the present research to ascertain the reliability and validity of the instruments, and also enable familiarly with the administration of the research tools, together with this, the exercise created a chance for improvement and review of the instruments and procedures that were deemed necessary. Adjustment was made based on the comments of the respondents and by correcting the ambiguities.

3.7.1 Validity

According to Patton, (2002), validity refers to quality attributed to proposition or measures to the degree to which research instruments conform to established knowledge or truth. An attitude scale is considered valid, for example, to the degree to which its results conform to other measures of possession of the attitude. Validity, therefore, refers to the extent to which an instrument can measure what it ought's to

measure. In this study the content validity of the questionnaire was determined by the researcher discussing the items in the questionnaire with his supervisors. With intensive consultation and expert advice, the researcher was able to correct the ambiguity and other errors notable according to the consultation.

To ensure content validity, discussions were held with experts during the instrument formulation stage to ensure that the measure includes an adequate and representative set of items give the content. The content validity of the instrument was determined by the study through discussion of the items in the instrument with the supervisors, lecturers from the department and colleagues. In order to evaluate the content validity of the instruments, the research came up with dimensions and elements that constituted adequate coverage as per the studies' objectives.

Face validity of the instruments was achieved by giving them to experts to obtain suggestions for modification. Face validity was determined from the instrument face value. As a check on face validity, research instruments were given to experts to obtain suggestions for modification. Face validity indicates that the items that are intended to measure a concept on the face. Face Validity was established by ascertaining whether at face value of the questions as they appear to be measuring the construct as per the research objectives. The study observed this to ensure that the instruments provided adequate coverage of the study concepts.

Construct validity assesses what the construct or scale is measuring. Construct validity was maintained through anchoring of the constructs to the theory from which they were derived. The validity of the instrument was determined by the researcher using expert judgment. This was done by discussing the items in the instrument with

the supervisors, lecturers from the department and colleagues. Advice given by these experts helped the researcher to determine the validity of the research instruments. The advice included suggestions, clarifications and other inputs. These suggestions were used in making necessary changes to promote the quality of the instruments.

3.7.2 Reliability

Reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials. The major aim of carrying out a reliability test is to be able to reduce random errors. In various areas of study, the accurate dimension of hypothesized variables posed a test by itself. The issue of accuracy of dimension also comes up in applied research, whenever variables are difficult to examine. In most researches, reliability and item analysis can be used to construct viable measurement scales, to improve existing scales and to assess the reliability of scales already in use. Specifically, reliability aids in the design and evaluation of sum scales, that is, scales that are made up of multiple individual measurements.

The measurement of scale reliability is based on the correlations between the individual items or measurements that make up the scale, relative to the variances of the items (Mugenda & Mugenda, 1999). To ensure reliability, research instruments were formulated according to the study objectives. Secondly, by consulting with the supervisors to ensure that every question added value to the objectives.

Cronbach's Alpha is one of the most common forms of internal consistency reliability coefficient. By convention, a lenient cut-off of 0.50 is common but in some cases some authors such as Gay, (1987) and Cronbach, (1990) stipulate that 0.6 is desirable in exploratory research; alpha should be at least 0.70 or higher to retain an item in an

“adequate” scale; and many researchers require a cut-off of 0.80 for a “good scale” (Kothari, 2004). In regard to the above, this study used Cronbach’s Alpha in order to test the reliability threshold of items during pilot study, after which the researcher made changes in order to ensure that the questionnaire was viable.

3.8 Data Collection Procedures

The researcher sought a research permit from the Commission of University Education, through the National Commission for Science, Technology and Innovation which allowed for data collection. The researcher then presented the certificate to County Education Office and school head teachers. Arrangement to meet with all the participants to explain the intention of collecting information from them was made. The study adopted ‘drop and pick’ method for teachers where questionnaires were given to them and later collected after they were dully filled with the help of two research assistants. For the interview with the quality assurance officer, the researcher made appointment with them. The interviews were carried out face to face as the researcher noted down the responses. The researcher himself administered interview to school head teachers, CSOs as well as to the Assistant County Directors of Education and the data gathered from the research instruments was then computed for interpretation. The interviews were recorded using pen and paper for a period of a month.

3.9 Data Analysis Procedures

Data analysis entails categorizing, ordering, manipulating and summarizing raw data to obtain answers to the research questions. The researcher first inspected the data collected for unanswered questions and wrongly responded to questions. After all data

had been collected, the researcher conducted data cleaning, which involved identification of incomplete or inaccurate responses and correct to improve quality of data analysed. The data was coded and analysed using the Statistical Package for Social Sciences (SPSS V 22). The research yielded both qualitative and quantitative data. Qualitative data was analysed qualitatively based on content analysis which involved coding and classifying data or categorized by computing and study findings were presented using percentages and tables and interpretations made. The researcher also made use of content analysis in terms of themes based on the study objectives to analyse qualitative data that was presented in prose form.

Quantitative data obtained in this study was analysed, organized into categories and patterns relevant to the study. Generalizations and descriptive statistics were used to analyse quantitative data by use of mean score, frequencies and percentages presented in tables. Descriptive statistical tools, for instance, frequency tables and percentages were used in data analysis.

3.10 Ethical Considerations

Permission to carry out the study was sought from the relevant authority namely, research permit from the Ministry of Education, Science and Technology, cover letter from Kenyatta University for the respondents and as well as permission from the County Director of Education. The nature and the purpose of the research were explained to the respondents by the researcher. The subjects/respondents were assured on the confidentiality of the information they provided that it would be meant for the purposes of the study only. The respondent had a right to deny any other information if he/she felt not secure. The respondents were assured security and they were not

victimized based on what the researcher collected from them. Respondents were asked to be as honest as possible in their answers. They had the freedom to participate or withdraw at whatever stage of the study. Pseudonyms were used to represent particular assistant county director, curriculum support officer, head teacher, teacher and school.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter presents analysis, presentation and discussion of the findings of the study. The purpose of this study was to evaluate how school physical environment influenced teachers' satisfaction in public primary schools in Elgeyo Marakwet County, Kenya. The findings of the study have been presented and discussed thematically in line with the research objectives.

The first section presents the demographic information of the respondents as collected from the questionnaire and an interview schedule that were used in collecting information from the respondents. The second gives findings on how physical facilities of the school influenced teachers' satisfaction in Elgeyo Marakwet County. The third section gives information on how work environment influenced teachers' satisfaction in Elgeyo Marakwet County. The fourth section illustrates how classroom arrangement influenced teachers' satisfaction in Elgeyo Marakwet County. The last section presents findings on measures that teachers use to improve their own satisfaction in Elgeyo Marakwet County.

4.2 Response Rate

A total of 140 questionnaires were issued to respondents including teachers, Head Teachers, Curriculum Support Officers and Assistant County Directors from which 132 were filled and returned which represents a response rate of 94.3%. The response rate was considered satisfactory since Nyamjom, (2013) argues that a response rate of

75% was considered excellent and a representative of the population. The success rate was attributed to the self-administration of the questionnaires applied by the researcher from which the intended respondents were pre-notified prior to the date of data collection and an agreement reached on the actual date for the administration for the questionnaires. Follow-up calls to clarify queries were made thus enhancing the high response rate. At the same time, it was noted that (5.7%) of the teacher's questionnaires were not used for data analysis since some of them were not returned and others were incorrectly filled. All the head teachers, curriculum support officers and assistant education officers projected to be interviewed were all available during the study. This was attributed to earlier booking of appointment with them.

4.3 Demographic Information of the Respondents

This section presents the demographic information of the respondent's which include; gender, age and marital status. These social attributes were relevant to the study since they enabled the respondent to provide information that was reliable and relevant to the study.

4.3.1 Gender of the Respondents

The respondents from selected public schools in Elgeyo Marakwet County were asked to indicate their gender.

Table 4.1 below shown results of the gender of the respondents:

Table 4.1: Gender of the Respondents

Gender of respondent	Frequency	Percentage
Male	41	31.1
Female	91	68.9
Total	132	100.0

Table 4.1 above indicated that the majority of respondents sampled were female 91 (68.9%), 75 being married, 4 widowed and 12 were single while only 41 (31.1 %) of them were male teachers 34 were being married and only 7 were single. This is because currently very few male teachers in Elgeyo Marakwet County are teaching primary schools. From the findings of the study, majority of the male teachers expressed dissatisfaction in the teaching career due to poor physical environment. As a result, many of them have changed their professions, ending up to farming while others quit from teaching with perception that teaching is a female profession.

4.3.2 Age of Respondents

The respondents were asked to indicate their age range and findings analysed as reported in Table 4.2 below:

Table 4.2 below illustrates the analysis of the age of the respondents.

Table 4.2: Age of Respondents

Years	Frequency	Percentage
Below 25	3	2.3
25-30	11	8.3
31-35	15	11.4
36-40	19	14.4
41-45	39	29.5
46-50	23	17.4
51-55	13	9.8
56-60	6	4.6
Above 60	3	2.3
Total	132	100

From the findings, it was evident that most of the respondents (29.5 %) were between 41 to 45 years whereby 28 were female and 11 were male followed by 46-50 (17.4%) of which 14 were female, and only 9 were male.

4.3.3 Marital Status of the Respondents

All respondents in this study were asked to indicate their marital status. The findings indicated that majority of the respondents 109 (82.9%) including 34 males and 75 females were married. Accordingly, only 19 (14.4%) of the respondents were single, this included 7 males and 12 females. Some 4 (3.0%) respondents were widowed. It

is often assumed that married employees, including teachers have more familial responsibilities and should therefore be more committed to the responsibilities that come with their professions.

Table 4.3 below shows the marital status of the respondents.

Table 4.3: Marital Status of the Respondents

	Frequency			Percentage
	Male	Female	Total	
Married	34	75	109	82.6
Single	7	12	19	14.4
Widowed	0	4	4	3.0
Total	41	91	132	100.0

4.3.4 Teacher Pupil Ratio of Respondents

The study showed that while most teacher respondents 52 respondents (39.4%) had a teacher-pupil ratio of 1:100, a few 13 (9.8%) had teacher pupil of 1:30.

Table 4.4 below shows teacher pupil ration as reported by respondents:

Table 4.4: Teacher Pupil Ratio of Respondents

	F	%
1:100	27	20.5
1:80	52	39.4
1:50	40	30.3
1:30	13	9.8
Total	132	100

4.3.5 Teaching Experience of Respondents

Notably, more than half of the teacher respondents in this study (63.6%) had taught for a period of 16 years and above. Teachers' experience may influence their satisfaction in one way or another. A study done in Kenya by Ng'asike (2004) and Ndegwa (2005) on satisfaction found that experienced teachers are likely to be more satisfied with their jobs than inexperienced ones.

Table 4.5 below shows the teaching experience of respondents:

Table 4.5: Teaching Experience of Respondents

Number of Years	Frequency	Percentage
Less than 5	19	14.4
6-10	16	12.1
11-15	13	9.9
16-20	37	28.0
More than 20 years	47	35.6
Total	132	100.0

A study by Zhongshan (2007) in China found a relationship between teaching experiences with teachers' satisfaction with more experience teachers enjoying greater satisfaction.

4.4 Influence of School Physical Facilities on Teachers' Satisfaction

The first objective of this study was to identify how physical facilities of the school influences teachers' satisfaction in Elgeyo Marakwet County. This was established using descriptive statistics involving the use of frequencies and percentages as well as Pearson correlation coefficient.

4.4.1 Descriptive Results on the School Physical Facilities and Teachers' Satisfaction

The respondents were required to rate the six statements representing physical facilities using a 5 point Likert scale (where 1=strongly disagree, 2=disagree, 3=not sure, 4=agree and 5=strongly agree) as summarized in Table 4.6. The finding indicates that, 25 teachers (18.9%) strongly agreed that classroom are comfortable and adequate, with 53 (40.2%) agreed, 6 (4.5%) undecided, while 37 (20%) disagreed and only 11 (8.3%) strongly disagreed. These findings showed that most of the teachers across the schools visited were in agreement that classrooms were comfortable and adequate. Similarly, observation data indicated that most classrooms of the visited schools were spacious, comfortable and adequate.

On the statement that the desks were comfortable and adequate, 17 (12.9%) of the teachers strongly agreed, 38 (28.8%) agreed, 18 (13.6%) were undecided, while 43 (32.6%) disagreed and 16 (12.1%) strongly disagreed. This indicated that on average the teachers neither agreed nor disagreed that desks are comfortable and adequate as indicated by 47.1% agreed and 44.7% disagreed. According to data from classroom observation, furniture in the classrooms were poorly done and too small for the sizes of the pupils. A desk meant for three pupils was being used by five pupils in some of the schools visited.

Table 4.6 below shows descriptive results on the school physical facilities and teachers' satisfaction:

Table 4.6: Descriptive Results on the School Physical Facilities and Teachers' Satisfaction

Aspect	Strongly agree		Agree		Neutral		Disagree		Strongly Disagree	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Classrooms are comfortable and adequate.	25	18.9	53	40.2	6	4.5	37	28.0	11	8.3
Desks are comfortable and adequate.	17	12.9	38	28.8	18	13.6	43	32.6	16	12.1
School has adequate buildings and adequate offices.	9	6.8	17	12.9	11	8.3	11	8.3	84	63.6
School has offices which are well equipped.	25	18.9	32	24.2	21	15.9	25	18.9	29	22
Instructional tools, equipment and materials are adequate.	16	12.1	41	31.1	19	14.4	41	31.1	15	11.4
School has enough games equipment and conducive attractive environment which motivates the teachers	7	5.3	47	35.6	28	21.2	29	22.0	21	15.9

Majority of the teachers 84(63.6%) strongly disagreed that school had adequate buildings and offices, 17(12.9%) agreed, 12.9% strongly agreed and some 11 teachers (8.3%) disagreed. A further 11 teachers (8.3%) were undecided on the statement that schools had adequate buildings and offices. These findings showed that most of the teachers disagreed that school had adequate buildings and offices. Observation data revealed that majority of the school compound in several schools were occupied by very old iron sheet structures that served as classrooms. For instance, in Makini* primary school, it was observed that classrooms were seven in number and several classrooms are crowded and desks are shared by four pupils on one desk meant to be used by three pupils. Observations also revealed that teachers denied the statement that their school buildings are adequate and thus, motivates teaching. Having school buildings is very vital for teachers to be motivated and be happy within their working environment.



Plate 4.1: Pupils of Makini* Primary School

Further in this study, observation data showed, Baraka* primary school administering lessons under trees with pupils using bricks and stones as desks. Lack of adequate teaching facilities at Baraka* Primary School also implied that the teacher strained in terms of teaching and could not attend to all pupils especially in language and mathematics lessons. It was also difficult for the teacher to give out and mark assignments on a daily basis since there is no specific arrangement of work space for the pupils and therefore becoming a burden to teachers and at the end of the day, the teacher is not satisfied. This implies that satisfaction of teachers may then be influenced by availability and adequacy of resources as well as conducive working environment.

The researcher also observed that the situation of most school buildings dilapidated as seen at Upendo* Primary School where by the buildings were worn out and no paint was visible. Other schools like Makini* and Chemichemi* primary had their mud-walled classrooms from the inside and wooden-walled from the outside wearing down very fast. This was evidenced by the fact that some buildings had holes big enough for pupils and anybody to pass through. It was also found that at Emtit* and Kuriot* primary schools, during rainy season, pupils and teachers were forced to leave early or even stay out of classes completely due to unpleasant weather. Buildings are very important to teaching and learning.



Plate 4.2: Classrooms of Chemichemi* Primary School

Overall, 25(18.9%) of the teachers strongly agreed with the statement that school had well-equipped offices. Accordingly, 32(24.2%) of the teachers agreed to the above statement and 21(15.9%) remained undecided. Notably, a further 25 (18.9%) of the teachers disagreed and 29(22%) strongly disagreed to the statement that school had well equipped offices. This indicates that on average, most teachers (43.1%) agreed that school had well-equipped offices. Data from school observations showed that school offices were big enough with few furniture in most of the schools and teachers have to make turns sitting here. The staffroom in most schools for instance Makini* and Chemichemi* primary school was used as a store with many old books as well as old furniture hipped all over the place.



Plate 4.3: Makini* Primary School Staffroom

From the study 16(12.1%) of the teachers strongly agreed that school had adequate instructional tools, equipment and materials. The percentage of teachers who agreed to this statement 41(31.1%) was the same as that of the teachers who disagreed. While 14.4% of the teachers were undecided on the adequacy of instructional tools, equipment and material in school, 11.4% strongly disagreed. These findings showed that teachers were undecided on the adequacy of instructional tools, equipment and material given that cumulatively, 43.2% agreed and 42.5% disagreed. Data from school observation showed that majority of schools had inadequate instructional tools, equipment and material in school. Findings also revealed that teachers denied the statement that their school buildings are adequate and thus, motivates teaching. Having school buildings is very vital for teachers to be motivated and be happy within their working environment. The study also observed that staffroom and offices in

majority of the schools were inadequate, an example is Kuriot* primary school where the head teacher's office and the staffroom were under the same roof partitioned by tri-ply wood.



Plate 4.4: Staffroom of Kuriot* Primary School

On the statement that the school had enough games equipment and conducive attractive environment which motivates the teachers in extra curriculum activities, 7(5.3%) of the teachers strongly agreed, 47(35.6%) agreed and 28(21.2%) were undecided. A further 29 (22%) teachers disagreed with the statement and 21(15.9%) strongly disagreed. This indicated that on average, the teachers agreed that school had enough games equipment and conducive attractive environment which motivates the teachers in extra curriculum activities as indicated by 40.9% agreed. From the observation data, majority of school have enough playing equipment with spacious and conducive playground. The study also observed that some of the schools had

adequate playing ground though not demarcated and not attractive, an example is Baraka* primary school which is located on a raised ground which does not provide good playground for pupils during games and this has not satisfied the teachers especially the games teachers during physical education.



Plate 4.5: Baraka* Primary School Play Ground

The findings indicated that the schools had no comfortable and adequate classrooms, conducive and adequate buildings and offices. This agrees with Caribbean Community Secretariat (2011) that the provision of adequate physical resources including facilities, equipment and maintenance can help in influencing attitudes and facilitating program success. Lack of facilities makes teaching ineffective for the

teacher and this demoralizes the teacher no matter how determined he/she may be in achieving certain goals. In such cases the teacher is left to teach without essential facilities and where possible forced to improvise in order to make learning effective. This becomes more difficult especially in the teaching of technical subjects and science subjects, which are even compulsory in the Kenyan education system. This affects performance of the students and also demoralizes the teacher.

Teachers neither agreed nor disagreed that desks were comfortable and adequate, school had well-equipped offices, adequate instructional tools, equipment and materials and school have enough games equipment and conducive attractive environment which motivates the teachers in extra curriculum activities. This agrees with Keeling and Kallaus (2000) that the infrastructure in which employees work and carry out most of their activities can impact on their productivity. The quality and quantity of work generated by employees are influenced by the office environment.

4.4.2 Correlations between School Physical Facilities and Teachers' Satisfaction

The influence of school physical facilities and teachers' satisfaction was established using Pearson product-moment correlation coefficient as shown in table 4.7. There was a positive influence of school physical facilities on teacher's satisfaction ($r = .583, p < 0.05$), which implies that the more the school physical facilities are conducive the higher the teachers' satisfaction.

Table 4.7 below illustrates the correlation between school physical facilities and teachers' satisfaction.

Table 4.7: Correlations between School Physical Facilities and Teachers Satisfaction

		Satisfaction	Physical facilities
satisfaction	Pearson Correlation	1	.583**
	Sig. (2-tailed)		.000
Physical facilities	Pearson Correlation	.583**	1
	Sig. (2-tailed)	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=132

There was a positive influence of school physical facilities on teachers' satisfaction ($r = .583$, $p < 0.05$), which implies that the more school physical facilities are available the higher the teachers' satisfaction. The more the school physical facilities are available the higher the teachers' satisfaction. This agreed with Ministry of Education, Safety Standards Manual (2008) that 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.

This agrees with Skolverket (2004), that a good working physical environment was factor to teachers' satisfaction. The positive influences are reducing teachers' stress, turnover, absence, sickness and are increasing teachers' motivation, satisfaction, cooperation and effectiveness in classrooms, as well as increasing pupil achievement. However, the bad working conditions such as work overload, crowded classrooms, low salary and status, pupils' behaviour and motivation problems, poor physical conditions, lack of necessary resources, low support from administrators, colleagues and parents have adverse impacts on teachers' level of satisfaction.

During data collection, the researcher observed that the situation of most school buildings dilapidated as seen at Upendo* primary school where by the buildings were worn out and no paint was visible. One teacher from Mlimani* primary school had this to say;

‘...the issue of poor working environment has really demoralized the teachers. For this reason, teachers experience high levels of stress and are more likely to miss days of work, which could potentially lead to falling behind in the curriculum. Teachers who are dissatisfied could negatively affect the morale of their students and fellow teachers, which could result in decreased motivation of students and staff (Teacher, Mlimani* primary school).

As a result, the buildings being attractive are crucial to learning as well as teachers’ satisfaction.

Notably, teachers denied the statement that there was adequate furniture for learners making teaching more convenient and attractive. Teaching a calm and comfortable class can be motivating compared to an overcrowded class. From the schools that the data was collected like Upendo*, Maskini* and Chemichemi* primary schools, teachers complained of inadequate desks and that many pupils squeeze themselves to fit on a desk.

One of the teachers said;

‘...Poor working environment and detachment are likely to counteract efforts to raise student achievement. Moreover, the overall level of satisfaction and attitudes of teachers are related to school working environment as I have seen many schools with more satisfied teachers are more effective (Teacher, Chemichemi* primary school).

Lack of adequate furniture as a result, causes discomfort thus, negatively affecting learning. Lack of adequate desks also impact teaching since teachers feel uncomfortable attending to pupils. Furthermore, teachers lamented that it is not easy to attend to pupils who do not sit properly and comfortably. This is normally

pronounced during marking of assignments or dictating notes to the pupils. Teachers may feel motivated and thus satisfied if there are adequate desks which enhance comfortable sitting and thus, improve attentiveness among pupils. Unlike Majimoto* primary school where there are adequate desks but the teachers are not satisfied due to the old structures used as classrooms.

On the other hand, respondents were not sure whether their school had enough equipment which motivates the teachers in extra curriculum activities but the teachers were still motivated by achievement of the pupils during games competitions though with limited facilities. Enough equipment and spacious play grounds are very important for both teachers and pupils. If a teacher after class feels tired, he/she can relax and refresh by walking or sitting in the field for fresh air. Pupils too are able to play and refresh making it easier for teachers to impart knowledge to them. In terms of play fields, the study observed that many schools had adequate playing ground though not demarcated and not attractive, an example is Maskini* primary school which is located on a raised stony ground which does not provide good playground for pupils during games and this has not satisfy the teachers especially the games teachers during physical education.

This shows that school physical facilities influence teachers' satisfaction. This agrees with Okonkwo and Obineli (2011) who stressed that many teachers in public schools lack motivation and satisfaction because of the poor condition of the environment of their workplace since a workplace environment with essential facilities is a prelude to satisfaction among workers. Similarly, the Carribean Community Secretariat (2011) who observed that the provision of adequate physical resources including facilities, equipment and maintenance can help in influencing attitudes and facilitating program

success. Carribbean Community Secretariat (2011) further observed that lack of facilities makes teaching ineffective for the teacher and this demoralizes the teacher no matter how determined he/she may be in achieving certain goals.

4.5 Influence of Work Environment on Teachers' Satisfaction

The second objective of the study was to assess how work environment influenced teachers' satisfaction in Elgeyo Marakwet County. This was established using descriptive statistics involving the use of frequencies and percentages as well as Pearson correlation coefficient.

4.5.1 Descriptive Results on Work Environment and Teachers' Satisfaction

The respondents were required to rate the seven statements on the influence of work environment on teachers' satisfaction using a 5 point Likert scale (where 1=strongly disagree, 2=disagree, 3=not sure, 4=agree and 5=strongly agree). The finding indicates that, 101 of respondents (76.5%) agreed that school facilities satisfy teachers they improve pupils' performance, 16 (12.1%) disagreed and 11.4% were undecided as summarized in Table 4.8.

Table 4.8 below illustrates the descriptive results on work environment and teachers' satisfaction.

Table 4.8: Descriptive Results on Work Environment and Teachers' Satisfaction

Aspect	Strongly agree		Agree		Neutral		Disagree		Strongly Disagree	
School facilities satisfy teachers they improve pupils Performance	42	31.8	59	44.7	15	11.4	3	2.3	13	9.8
School facilities enhance satisfaction and hence pupils perform better in Examinations.	50	37.9	13	9.8	23	17.4	43	32.6	3	2.3
When facilities are adequate teachers are Satisfied.	14	10.6	3	2.3	39	29.5	55	41.7	21	15.9
School environment is conducive.	3	2.3	3	2.3	42	31.8	52	39.4	32	24.2
The school has provided adequate reading and writing materials for learning	3	2.3	23	17.4	43	32.6	29	22.0	34	25.8
Learners in my school have positive attitudes towards learning thus, making teaching attractive	16	12.1	23	17.4	26	19.7	35	26.5	32	24.2
There is good communication between learners and teachers in my school	3	2.3	13	9.8	56	42.4	25	18.9	35	26.5

At least 76 (57.6%) of the teachers disagreed that facilities were adequate and satisfied, with 29.5% undecided and 12.9% agreed. Most of the teachers 84 (63.6%) disagreed that school environment was conducive, with 42(31.8%) undecided and

4.6% disagreed. The finding indicates that, 63(47.8%) of the respondents disagreed that school had provided adequate reading and writing materials for learning, with 43(32.6%) undecided and disagreed 26(19.7%).

At least 67(50.7%) of the teachers disagreed that learners have positive attitudes towards learning thus, making teaching attractive, with 29.5% agreed and 19.7% undecided. Notably, 56(42.4%) of the teachers were undecided on the question of good communication between learners and teachers, 60(45.4%) disagreed and only 12.1% agreed. The influence of work environment on teachers' satisfaction indicate that school facilities satisfy teachers and hence improve pupils' performance, school facilities enhance satisfaction and hence pupils perform better in Examinations, school environment was conducive and when facilities were adequate teachers were satisfied. Reynolds (2004) observed that teachers were frustrated because of unsupportive work environment and shortage of teaching and learning resources.

One of the many challenges for the teachers is to satisfaction. In order to increase efficiency, effectiveness, productivity and commitment, teachers must be satisfied. This satisfaction comes through the teachers being provided with good working conditions like manageable class size, teacher/pupil ratio, and work space and school physical facilities. The best predictor of satisfaction is when the employees' personal values match those of the organization. It should be noted that workload does not only mean the number of lessons per week, but also entails other activities. Teachers do teach, they assign lessons, mark examinations and assignments, are involved in co-curricular activities, supervisory duties and counselling of pupils. All these duties make teachers to be overworked and hence may not give their best output.

4.5.2 Correlations between Work Environment and Teachers' Satisfaction

The influence of school work environment and teacher's satisfaction was established using Pearson product-moment correlation coefficient as shown in table 4.9. There was a positive influence of work environment on teachers' satisfaction ($r = .215$, $p < 0.05$), which implies that the more the work environment is conducive the higher the teachers' satisfaction.

Table 4.9 below illustrates the correlation between work environment and teachers' satisfaction.

Table 4.9: Correlations between Work Environment and Teachers Satisfaction

		Satisfaction	Work environment
Satisfaction	Pearson Correlation	1	.583**
	Sig. (2-tailed)		.000
Work environment	Pearson Correlation	.215*	1
	Sig. (2-tailed)	.013	

** . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=132

The findings indicated that work environment influence teacher's satisfaction. This agrees with Eamon, (2005) that better outcomes and increased satisfaction is assumed to be the result of better work place environment. Poor environmental conditions not only cause inefficient worker productivity, but also reduce workers' satisfaction as well, which in turn impacts negatively on the organization's achievement. This agrees with Bennell, Bulwani and Musikanga, (2004) that the environment should be clean, modern with adequate and appropriate tools for work.

It also concurs with Munguyu (2008), that work environment such as high enrolment, over-stretching of physical facilities and learning resources attributed to FPE, affected teachers' satisfaction. Teachers were highly dissatisfied with the high number of pupils they had in the class. Work environment is an important issue that can affect the satisfaction of teachers in school projects. This agrees with Obineli (2013) that inspired workplace will result in inspired workers and draws attention to the importance for work performance, the atmosphere, quality and style of buildings and offices.

Teachers' outcry of workload was manifested during the reintroduction of free primary education policy in the year which saw an influx in the enrolment with minimal employment of additional teachers. The available teachers who are insufficient have to ensure that they teach, give assignments, mark them and do all sort of activities in terms of duties and responsibilities that come with teaching profession.

At the end of the day, a teacher may feel exhausted and will not wish to continue the next day' said Mr Boen* a Science teacher from Upendo* primary school.

Conducive working environment is where teachers feel relaxed and free to share their problems which then increase their level of satisfaction. In addition, teachers like any other human being, have unique needs that need to work in a good environment. If the management pays attention to teachers' unique needs, then it may positively influence satisfaction. Management is akin to an engine of the school and therefore, for a school to have a conducive working environment, it may imply that its management is good. On the contrary majority of teachers said that management was neither cooperative

nor supportive. Some teachers said that they use their personal resources to ensure that teaching and learning goes on smoothly.

One male married teacher at Keben* primary school argued thus:

‘...in my view I would say that if there is anybody to blame for the poor condition of this school, is my head teacher (sic). I am a Mathematics teacher and imagine the school cannot provide me with a very small item like a ruler. Secondly, with this kind of subject, one is expected to give and mark assignments on a daily basis. The school cannot afford to buy red pens for me. In fact, I feel like I need to be transferred as early as yesterday....’

From the interview it can be deduced that some head teachers are not responsible in ensuring that teachers are served with basic resources for ensuring effective learning and teaching. In an interview with the school management on whether they cooperate with teachers in making their work easier.

A head teacher from Tumaini* primary school had this to say:

‘Yes we do give them the maximum cooperation required since we need the best out of them. However, sometimes it is difficult to provide all the resources required due to constraints of funds. For instance, the disbursement for this term has not been done and therefore we are running the school without money which makes it hard to facilitate effective learning’ (Head teacher, Tumaini* primary school).

It was clear from the interview that the school management acknowledge their inadequacies in facilitating teaching and learning which has a triple effect on teachers’ satisfaction. The interview results indicated that school facilities do not enhance satisfaction towards learning, thus, making teaching attractive. According to some of the teachers, school facilities have promoted satisfaction. For instance, teachers may have a negative attitude towards certain practical or learning may create poor communication and cooperation between pupils and teachers. The adequacy of facilities builds positive attitude among teachers hence creating conducive learning environment making them feel motivated to work thus increasing their level of

satisfaction. The influence of work environment on teachers' satisfaction indicates that school facilities satisfy teachers and pupils perform better in examinations. This agrees with Hill (2010) stated that employees spend so much time in their work environment each week and therefore it is important for companies to try to optimize their working conditions like providing spacious work areas rather than cramped ones because adequate lighting and comfortable work stations contribute to favourable work conditions. Providing productivity tools such as upgraded information technology to help employees accomplish tasks more efficiently and contributes to satisfaction as well.

Teacher is always concerned with their work environment for their personal comfort as well as for facilitating efficiency at work. Good working conditions provide greater physical comfort for teachers and boost their morale. While very poor conditions breed frustration and regret and consequently a high sense of dissatisfaction. Obineli (2010) argued that inspired workplace will result in inspired workers and draws attention to the importance for work performance, the atmosphere, quality and style of buildings and offices. The work environment embraces working. Good working conditions provide greater physical comfort for teachers and boost their morale. While very poor conditions breed frustration and regret and consequently a high sense of dissatisfaction.

4.6 Workspace Arrangement and Teachers' Satisfaction

The third objective of this study was to establish how arrangement of workspace influences teachers' satisfaction in Elgeyo Marakwet County. This was established

using descriptive statistics involving the use of frequencies and percentages as well as Pearson correlation coefficient.

4.6.1 Descriptive Results on Workspace Arrangement and Teachers' Satisfaction

The respondents were required to rate the seven statements representing physical facilities using a 5 point Likert scale (where 1=strongly disagree, 2=disagree, 3=not sure, 4=agree and 5=strongly agree). Majority of the teachers 87(65.9%) agreed that there was proper space demarcation for activities, with 31.8% disagreeing and 2.3% being undecided. A further 60(45.5%) of the teachers agreed that books were well arranged in shelves, 37.1% disagreed to this statement and 17.4% were undecided. Accordingly, 66(50%) of the teachers agreed that space available is very friendly to all users, 34.1% disagreed and 15.9% were undecided.

Majority of the teachers 72(54.5%) disagreed that there was no enough space for movement in class, with 31.1% being undecided and 14.4% agreeing to the statement. Most of the teachers 85(64.4%) disagreed that there was proper allocation for each activity, with 34.4% agreeing and 2.3% undecided. Majority of the teachers 83(62.9%) disagreed that staffroom is attractively arranged, with 34.9% agree and 2.3% undecided. Most of the teachers 83(62.9%) disagreed sitting arrangement in the staffroom is comfortable and 49 (37.1%) agree.

Table 4.10 below illustrates the description of how classroom arrangement affect teachers' satisfaction.

Table 4.10: Descriptive Results on Classroom Arrangement and Teachers' Satisfaction

Aspect	Strongly agree		Agree		Neutral		Disagree		Strongly Disagree	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
There is proper space demarcation for activities.	64	48.5	23	17.4	3	2.3	35	26.5	7	5.3
Books are well arranged in shelves.	24	18.2	36	27.3	23	17.4	16	12.1	33	25.0
There is enough space for movement in class.	8	6.1	11	8.3	41	31.1	49	37.1	23	17.4
Space available is very friendly to all users.	10	7.6	56	42.4	21	15.9	42	31.8	3	2.3
Proper allocation done for each activity.	3	2.3	41	31.1	3	2.3	82	62.1	3	2.3
The staffroom is attractively arranged	3	2.3	43	32.6	3	2.3	60	45.5	23	17.4
Sitting arrangement in the staffroom is comfortable	23	17.4	26	19.7			60	45.5	23	17.4

Majority of the teachers agreed that there was proper space demarcation for activities, books were well arranged in shelves and teachers agreed that space available is very friendly to all users. Spatial arrangement is very vital in influencing teachers' satisfaction. The amount of room available to occupants affects their behaviour, including satisfaction and achievement. Evans (2006) revealed that increased

occupant density is associated with greater levels of social withdrawal and aggression among pupils and dissatisfaction among teachers.

Most of the teachers disagreed that there was no enough space for movement in class, there was proper allocation for each activity, staffroom was attractively arranged and sitting arrangement in the staffroom was comfortable. May *et al.* (2005) found that teachers with less space were less satisfied with the amount of space they had available and were more frequently late to work as well. The way spaces are organized regarding visual privacy and adjacency are also important features for behavioural outcomes.

4. 6.2 Correlations between Classroom Arrangement and Teachers' Satisfaction

The influence of influence of classroom arrangement and teachers' satisfaction was established using Pearson product-moment correlation coefficient as shown in table 4.11. There was a positive influence of classroom arrangement on teachers' satisfaction ($r = .553$, $p < 0.05$), which implies that the more classroom arrangement is achieved the higher the teachers' satisfaction.

Table 4.11 below illustrates the correlation between classroom arrangement and teachers' satisfaction.

Table 4.11: Correlations between Classroom Arrangement and Teachers' Satisfaction

		Satisfaction	Classroom arrangement
Satisfaction	Pearson Correlation	1	.583**
	Sig. (2-tailed)		.000
Classroom arrangement	Pearson Correlation	.553**	1
	Sig. (2-tailed)	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=132

The more the classroom arrangement is attained the higher the teachers' satisfaction. Proper arrangement of furniture also plays a vital and crucial role in classroom functioning. Also agrees with Higgins, *et al.*, (2005) that desk arrangement can affect students' achievement and attention. Furthermore, it concurs with Iqbal (2005) that the arrangement of classroom educational facilities and instructional spaces might be selected for learning rather teaching. Besides, it should ensure to facilitate teacher in making an atmosphere where quality learning may be promoted.

In a school setting, there are a lot of activities that require space allocation. For instance, pit latrines, playing field, school garden, as well as for buildings such as offices, learning classrooms, laboratory and stores among others.

A married female teacher aged 42 was bitter over allocation of space;

.... look you have been here yourself, the space allocation of pit latrines for pupils and those of teachers is very poor. Latrines for teachers and those of pupils stand opposite each other with a space of less than three metres in between. What kind of privacy is this (Teacher, Upendo* primary school)?

From this teacher's remarks it is evident that proper allocation of space for every activity is very important and poor allocation may negatively impact teachers' satisfaction level. Teachers for instance feel that going to a toilet is such a private affair and thus pupils need not to be aware of.

The married teachers 56 (3%) of whom having a work experience of 16 years were also not satisfied with the way their staffrooms were arranged and therefore denied the statement that their staffrooms were attractively arranged 45 (2%). According to these teachers, the management is not so much concerned about the sitting arrangements rather than what a teacher can do and produce in terms of results. One teacher said that the main agenda in that school was not the issue of teachers' welfare but about performance.

...What we keep hearing from the management is all about punctuality and hard work nothing else. When you come to our staffroom, you will be surprised as to who are the owners, is it animals or people? (Teacher, Upendo*primary school).

Working under an attractive environment such as staffroom is very vital. Apart from being in the classroom, teachers spend most of their time in the staffroom and thus, making it attractive creates a conducive environment which may further improve their satisfaction level.

The study's respondents who included head teachers, CSOs and Assistant Country Directors of Education were asked to state what teachers' satisfaction was and the following were their responses:

...It is the state of being contented with the environment within which a teacher works' ...when a teacher is provided with conducive environment, then he/she will be motivated to work and thus, in the end there will be high production coupled with high levels of satisfaction, (Head teacher, Makini* primary school).

The Assistant Sub-County Director said that; ... *Satisfaction is the state of fulfilment where a teacher has everything that he/she may require in the working environment*''.

Improving workplace arrangements can help the teachers to improve staff morale, motivation and productivity, become a teacher of choice, reduce staff turnover and absenteeism and reduce staffing costs.

4.7 Teachers' Satisfaction

Teachers' satisfaction is the dependent variable of this study which was measured against the school physical environment. When teachers were asked to state whether they were satisfied or not, majority (69%) of teachers were not satisfied, while 31% were satisfied. Figure 4.1 has a summary of the findings.

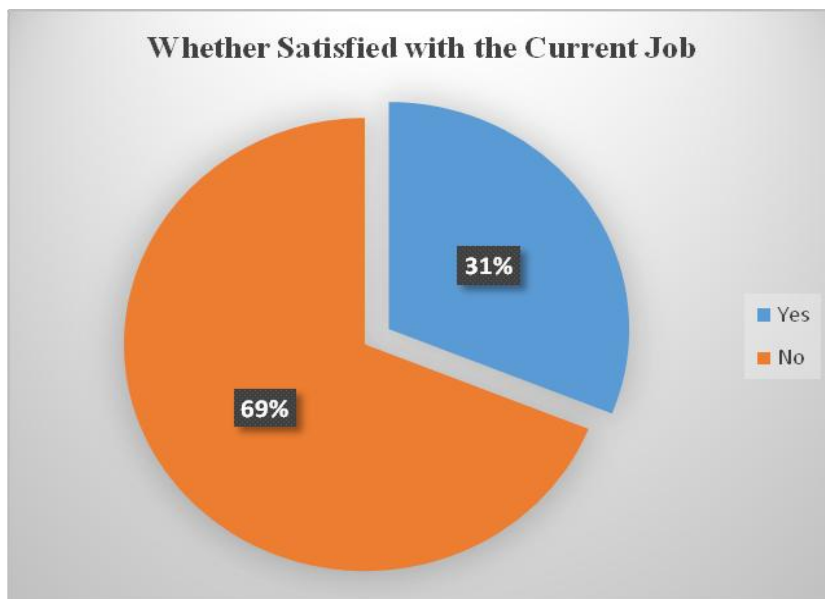


Figure 4.1: Whether Satisfied with the Current Job

This finding agrees with the study of Nyagaya (2015) who in his study about the factors influencing teachers' level of satisfaction in public primary schools in Kayole division in Kenya found that 90.8% of teachers were not satisfied with their jobs,

while the remaining 9.2% had high level of satisfaction which was attributed to their being old and of long working experience. The findings showed that teachers were not satisfied with their job, something that could lower their performance and affect students at large.

4.7.1 Reasons for Teacher Dissatisfaction

Majority of teachers who were not satisfied gave numerous reasons. In addition, the key respondents who were the head teachers and CSOs also ascertain the fact that most teachers are not satisfied with their working environment. This implies that, a lot is required in order to satisfy teachers. The Assistant County Director of Education of Kapurwo* Sub-County said that teachers perceive that they are not satisfied. *First with the on-going strike that implies that remunerations are not adequate''* (he said this at the time when teachers were striking for their salaries to be increased by more than 50% as was directed by high court ruling). The following were some of the reasons of teacher dissatisfaction among the key respondents of the study.

Teacher absenteeism: Upon finding out the indicators of teacher dissatisfaction, absenteeism kept repeating from one interviewee to the other. Mr Samoei*, a male head teacher of Makini* primary school, aged 48years who was so concerned over the issue of absenteeism said that some of his teachers were notorious absentees. According to him, these teachers may not be happy with the working environment. Abeles (2009) observes that absenteeism is a period of not attending to duty by the employees while for teachers it may also mean being in school but failing to teach or being in unfit condition to teach the children effectively. Research exemplified by Castro (2007), Hubbell (2008) and Komoni (2015) has shown that teacher

absenteeism is a global phenomenon facing developing countries more than the developed ones.

In developing countries, the teacher absenteeism rate is above 40% while in developed countries it is as low as 10% (Hubbell, 2008). Though dissatisfaction was found to have a weak correlation to teacher absenteeism, other scholars such as Ivatt (2010), asserts that dissatisfaction is among the major causes of high level of absenteeism of teachers in many African Countries. This study thus agrees that dissatisfaction have a weak correlation to teacher absenteeism as indicated by 91(69%) of the respondents on the table above.

According to the assistant county director of education of Kapurwo* Sub-County,

Teacher absenteeism in this county is alarming. Records show that teacher absenteeism is over 35%) he said.” He reiterated that dissatisfaction might be the major cause to absenteeism. He urged head teachers to come up with small committees to probe into teacher absenteeism so that an everlasting solution is found (Assistant County Director, Kapurwo* Sub-County).

Coming to work late: Almost all the head teachers who were interviewed complained about most of their teachers coming to work late as illustrated by the excerpts below:

...when the physical working environment is not conducive, teachers might be demoralized to work. Some teachers may come to school late as they may not wish to be associated with the poor working conditions from the staffroom arrangements to the playing fields, pupils’ behaviour as well as inadequate learning and teaching resources (Upendo* primary school)

Missing lessons: Through interviews, it was also established that some teachers come to school as usual but rarely attend to their lessons. According to the Assistant County Director of Education,

On my usual official duty, I visited one school which is not far from here and I was surprised. Well, the visit was an impromptu kind of and I decided not to visit the offices first but went straight to classrooms. The first class to visit was Class Four where I found pupils making a lot of noise. On asking what lesson they were supposed to be having, they said, English.on visiting Class Eight I found that pupils were reading on their own with one as their teacher. He was teaching Mathematics. Upon inquiry, I found that teachers were in their staffroom charting.....

This statement may imply that teachers' morale and motivational level to attend to their lessons might be low.

Working under supervision: According to the school head teachers, some teachers were very difficult to work with and only attended classes whenever the top management was around. A female head teacher from Upendo* Primary School said that she was aware that some of her teachers inquired about her whereabouts so that they could skip classes.

I noticed this behaviour when one day I called out Class eight monitor to give me a report on classwork. He told me that some teachers did not attend to their lessons in my absence (head teacher Upendo* Primary school).

According to a Kiswahili teacher from Chemichemi* Primary School, '*always performs well in Kiswahili since the head teacher is strict and regularly supervises her teachers to see whether the teachers attend all lessons*'. While on the one hand Makini* Primary school head teacher does little on supervision and therefore teachers tend to miss lesson when the head teacher is not around. This argument was supported by Mr Tenai* who is the English teacher of Makini* Primary School. This truly confirms that some teachers may be unhappy within their working environment and need to be pushed before they work.

Running other businesses: Despite the fact that running other businesses by teachers may be associated to low pay, it may also be linked to dissatisfaction. The study established that apart from being employed by the Teachers' Service Commission (TSC), most teachers were engaging in private businesses. The Sub-County director of education said that;

...I know for sure that some teachers have boda boda, others are in M-Pesa business and others have vehicles that operate as PSV as well as taxis (Assistant County Director, Kapurwo* Sub-County).

Since majority (69%) of teachers were not satisfied, it was important to further identify reasons for dissatisfaction. The following reasons were given by teachers:

Lack of adequate teaching and learning resources: Analysis from the open group questions over reasons for teacher dissatisfaction showed majority of teachers complained of inadequate teaching and learning resources. According to Mr Kiprugut*, the Assistant County Director of Education, having adequate resources is crucial in ensuring teachers' satisfaction. He further said that teachers will be happy to go to work every day because they know that resources are available and adequate. Provision of teaching and learning resources such as books, playing facilities, desks as well as spacious classrooms may positively influence teachers' satisfaction.

Poor leadership and management: It is found that there is poor leadership from the management. For instance, Mr Kemboi*, a science teacher from Milimani* Primary School said that management does not consider them in decision making yet they are the implementers. He was supported by other two teachers from Upendo* and Shamba la Mawe* Primary School where they said that the management is not cooperative at all. Social Studies teacher from Milimani* Primary School said that;

‘I have approached the head teacher on the issue of taking my class to a tour to incorporate theory and practical since I am a social studies teacher but it has all landed in deaf ears (Teacher, Mlimani* Primary School).

She continues to say that if the management does not want to cooperate and share the challenges with teachers, there were no way teachers were going to be happy.

Teacher-pupil ratio: The interviewed also lamented that the number of pupils per every class was very high making it difficult for them to command their classes. Mrs Otieno*, a teacher at Shamba la Mawe* Primary School said ‘*among all the classes that I teach, the lowest number of pupils is fifty-three or else other classes have pupils more than 60.*’ She further said that handling such classes may be tricky especially if there is an assignment to give and mark every day. According to her, her favourite subject is English which she like teaching in three classes, six, seven and eight. To her it becomes difficult to give class assignments every day due to inadequate time for marking.

Remuneration versus Workload: Despite the fact that the question asked was linked to the school physical environment, 92% of the teachers who participated in this section talked of poor remuneration compared to the workload. Not being paid what you are worth is called being underpaid. This one issue is the most challenging one to work with because it can be driven by interpretation or perspective that is very personal or individually focused. If a teacher does not think they are being paid enough to do their job, then they perceive themselves to be underpaid even if the wages they make are in line with that position. According to these teachers, they are doing so much but the salaries they receive every month do not compensate the workload. One head teacher said;

Every day from Monday to Friday I work for more than six hours yet whatever is paid is very little. It cannot take care of all my needs. I don't run any business; this is the only I have (Teacher, Shamba la Mawe* Primary School).

In addition, in order to find out more on satisfaction of teachers five variables were adopted for answering where Likert scale was adopted (where 1=strongly disagree, 2=disagree, 3=not sure, 4=agree and 5=strongly agree) as shown in Table 4.9.

4.7.2 Teacher's Perception on their Satisfaction

Teachers' satisfaction was the dependent variable of this study. The respondents were requested to rate the five statements on teachers' satisfaction using the five point likert scale as shown in table 4.12. Most of the teachers 65(49.3%) disagreed that the working environment was awesome, 43(32.6%) were undecided and 24 (18.1%) agreed. Also 54(40.9%) were undecided that they were happy with the school management, with 56 (42.4%) disagreeing and 22(16.6%) agreeing.

Notably, 62(46%) teachers disagreed that given a chance, they would like to remain for some time, 46(34.8%) agreed and 24(33.3% were undecided. However, most of the teachers 92(69.7%) agreed that they had a cordial relationship with their colleagues, with 27(20.5%) disagreeing and 9.8% remaining undecided. Finally, majority of the teachers 93 (70.5%) agreed that they love their and profession, with 26(19.6%) disagreed and 9.8% undecided.

Table 4.12 below illustrates the teacher perception on satisfaction.

Table 4.12: Teachers' Satisfaction

Aspect	Strongly agree		Agree		Neutral		Disagree		Strongly Disagree	
The working environment here is awesome	11	8.3	13	9.8	43	32.6	36	27.3	29	22.0
I am happy with the school management	9	6.8	13	9.8	54	40.9	26	19.7	30	22.7
Given chance, I would like to remain here for sometime	2	1.5	44	33.3	24	18.2	60	45.5	2	1.5
I have a cordial relationship with my colleagues	3	2.3	89	67.4	13	9.8	24	18.2	3	2.3
I love my and profession	22	16.7	71	53.8	13	9.8	13	9.8	13	9.8

The findings indicated that teachers disagreed that the working environment was awesome, happy with the school management and that given a chance, they would like to remain for some time. Teachers' working environment was not conducive considering the fact that they complained of inadequate resources, lack of cooperation from the administration as well as heavy work load due to high pupil-teacher ratio. Most of the teachers agreed that they have a cordial relationship with colleagues and love their and profession. This signifies the importance of work in their lives that despite the poor working condition, they love their work. One teacher said that teaching is not just a profession but it is a calling, just like preaching.

Other indicators of teachers' satisfaction established during interviews included: working less under supervision, readiness of teacher to work, minimal absenteeism, being well groomed, ability to work for long hours, cooperation, happiness, achieving

positive results in terms of academic performance as well as having positive attitude towards working environment were the major indicators of teachers' satisfaction.

Working under supervision: In order to show that teachers were dissatisfied, it was established from the interviews that some teachers work under supervision. According to the school head teachers, some teachers were very difficult to work with and whenever they were aware that anybody of top management was not around, they would not attend to their class lessons. Mrs Kiprono*, a female head teacher of Upendo* Primary School said that she was aware that some of her teachers inquired about her whereabouts so that they could skip classes.

I noticed this behaviour when one day I called out Class eight monitor to give me a report on classwork. He told me that some teachers did not attend to their lessons in my absence (Mrs Kiprono* Head Teacher Upendo* Primary School).

According to Mrs Some a Kiswahili teacher from Chemichemi* Primary School, 'always perform well in Kiswahili since the head teacher is strict and regularly supervise her teachers to see whether the teachers attend all lessons'. While on the one hand Makini* Primary School head teacher does little on supervision and therefore teachers tend to miss lesson when the head teacher is not around. This argument was supported by Mr Tenai* who is the English teacher of Makini* Primary school. This truly confirms that some teachers may be unhappy within their working environment and need to be pushed before they work.

Collaboration and team work: Some teachers mentioned shared relationships as a strong aspect of their satisfaction with teaching. Others were highly critical of their fellow teachers and preferred not to collaborate with them; this created a feeling of dissatisfaction and they wished things were different. A female teacher of Kipsat* primary school stated that when teachers work as a team, supporting one another and

exchanging ideas then a lot of good things can be done and this is a source of immense personal and professional satisfaction. A male school head teacher of Suswek* primary school explained how important it was in his school to build collaborative relationships among teachers, because this helped reduce stress. A female married teacher aged 45 of Koita* primary school admitted that she did not collaborate much with colleagues, although she thought it might be a good thing. She explained how she felt a lot of disappointment whenever she was implementing an innovative idea, because some teachers did not like it and responded negatively to it. Mrs Too, a female teacher of Tulwet* Primary school added that;

There is a lot of politics and jealousy among teachers, especially young ones who try to establish themselves. So I collaborate with those whom I perceive they are less threatening (Mrs Too, a teacher at Tulwet* primary school).

In a nutshell, high level of collaboration among primary school teachers indicates an element of teachers' satisfaction (Brunetti, 2001). According to Cockburn (2000) positive social relationships with colleagues are important sources of teachers' emotional health, because they are seen as a source of friendship and a source of social and emotional support; when these relationships don't exist, teachers share deep feelings of dissatisfaction.

4.8 Regression on Physical Environment and Teachers' Satisfaction

A multiple linear regression model was used to predict teachers' satisfaction in the study. The prediction was carried out based on the independent variable physical environment (physical facilities, work environment and classroom arrangement). R^2 represented the values of correlation coefficients between the predictors used in the model and teachers' satisfaction. The R^2 represented the measure of variability in

teachers' satisfaction among selected rural Nandi county ECDE centres (Table 4.13). From the model, ($R^2 = .557$) shows that all the predictors account for 54.4% variation in teachers' satisfaction. The model caused adjusted R^2 to change from zero to .557 and this change gave rise to an F-ratio of 50.851, which is significant at a probability of .05.

Table 4.13 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.737 ^a	.544	.533	.42269	.544	50.851	3	128	.000

a. Predictors: (Constant), Work environment, Physical facilities, Classroom arrangement

The F-ratio was 50.851 and significant ($P < .05$) as shown in Table 4.14. The model significantly improved the ability to predict the teachers' satisfaction and the model was significant.

Table 4.14 ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	27.256	3	9.085	50.851	.000 ^b
	Residual	22.869	128	.179		
	Total	50.125	131			

a. Dependent Variable: satisfaction

b. Predictors: (Constant), Work environment, Physical facilities, Classroom arrangement

4.8.1 Coefficients of Teachers' Satisfaction

From the study the β coefficients for independent variable was generated from the model used in the under study. The t -test was used as a measure to identify whether the predictors were making a significant contribution to the model. Table 4.15 showed the estimates of β value and gave the contribution of the predictor to the model. The β value explains the relationship between teachers' satisfaction and the predictors (physical facilities, work environment and classroom arrangement).

The positive β values indicate the positive relationship that exists between the predictor and the outcome. The β value for physical facilities, work environment and classroom arrangement had a positive coefficient thus positive relationship with teachers' satisfaction as summarized in the model as:

$$Y = -1.047 + 0.419\beta_1X_1 + 0.606\beta_2X_2 + 0.454\beta_3X_3 + \varepsilon \dots \dots \dots \text{Equation 4.1}$$

Where: Y = Teachers' satisfaction

ε = error term

X_1 = Physical facilities

X_2 = Classroom arrangement

X_3 = Work environment

From the findings the physical environment indicators under investigation; physical facilities ($\beta_1 = 0.419$), classroom arrangement ($\beta_2 = .606$) and work environment ($\beta_3 = .454$) had significant relationship with teachers' satisfaction. This indicated that

physical facilities, work environment and classroom arrangement significantly influenced the teachers' satisfaction.

Table 4.15 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
(Constant)	-1.047	.362		-2.894	.004					
Physical facilities	.419	.110	.277	3.812	.000	.583	.319	.228	.674	1.484
Classroom arrangement	.606	.086	.545	7.062	.000	.553	.530	.422	.599	1.670
Work environment	.454	.081	.377	5.614	.000	.215	.444	.335	.789	1.267

a. Dependent Variable: Teachers' satisfaction

This indicated that physical facilities, work environment and classroom arrangement significantly influenced the teachers' satisfaction. A poor fit between employees and their jobs will increase the search for alternative jobs (Nzuve, 2010). The physical environment, for example, availability of facilities like well stocked library and adequate class-rooms will result into satisfaction. Aesthetics, for instance, flower gardens will also add to the staffs' satisfaction. There should be adequate working facilities/ tools of work, the buildings should be safe in order to avoid chances of accidents/ insecurity.

These findings agree with previous authors Kamarulzaman *et al.*, (2011) that physical environment affects building users in numerous ways, such as teachers' satisfaction, learning outcomes (Schneider, 2002; Bailey, 2009) and health (Mendell & Heath, 2005; Fisk *et al.*, (2011). This shows that school physical facilities influence teachers

'satisfaction. This agrees with Okonkwo and Obineli (2011) who stressed that many teachers in public schools lack motivation and satisfaction because of poor salary and the poor condition of the environment of their workplace since a workplace environment with essential facilities is a prelude to satisfaction among workers.

This agrees with Bennell, Bulwani & Musikanga (2004) in their study found that working conditions had an impact on satisfaction. The key factors in their study were workload, general classroom conditions, collegial and management support, location, living arrangement and distance to work. The nature of working conditions in institutions entails the conditions in which employee work. Working conditions are very important to the way employees feel about where they work. Employees feel proud of their institution when conditions are conducive and friendly to the workforce. The lack of these conditions in institutions results in teachers finding it difficult to cope up.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter comprises of the summary of the findings, conclusions and recommendations in regard to evaluation of school physical environment on teachers' satisfaction. This content was presented according to the research objectives that the study sought to achieve.

5.2 Summary of the Study

The findings of the study were based on the data garnered in the field study in relation to objectives and research questions that the study sought to address.

The First objective sought to find out how physical appearance of the school influenced teachers' satisfaction. Under this objective, the findings were summarized as follows; first, it is found that the teachers were not satisfied at all with the school physical appearance. This study found that a great majority (69%) of teachers were not satisfied. From the interview with the respondents, poor leadership, inadequate resources, high pupil-teacher ratio and poor remuneration compared to the work load were the major reasons for teacher dissatisfaction. This meant that, teachers were not satisfied with most aspects of their working conditions, for instance, they complained of negative impact of dilapidated, leaking and ill-ventilated school house with broken window panes, or defective walls, or muddy and sandy floor, on the pupils' behaviour.

Secondly, a school physical environment which is of this condition does not attract teachers and contributes to their dissatisfaction. In regard to the influence of school physical appearance on teachers' satisfaction the study observed that school environment were not conducive, inadequate facilities to enable teaching and learning more attractive. However, a study by Erjem, (2004) found that a significant percentage of teachers working in schools did not feel committed to their work places, because of the poor physical working conditions at schools. Most of the teachers were not happy with their school administration, physical conditions of their school buildings, inadequate teaching and learning facilities as well as poor conditions of their toilets. This was exactly what the study found out in Elgeyo Marakwet County where most teachers lament on the poor school physical environment such as inadequate and dilapidated buildings, workload due to pupils overcrowding as well as inadequate school facilities such as classrooms which force some to learn under trees

The second objective of this study set out to assess how working environment influenced teachers' satisfaction in Elgeyo Marakwet County. Major findings reveal that; first, there were inadequate desks for pupils some of which use big blocks and stones as desks. The toilets in some schools were inadequate where it was found that teachers had only one toilet (shared both male and female).

Secondly, there were inadequate desks for pupils some of which use big blocks and stones as desks. The toilets in some schools were inadequate where it was found that teachers had only one toilet (shared both male and female). Finally, the study also found that as part of physical appearance, some schools did not have book shelves while others had but was in poor shape.

Thirdly, concerning working environment and its influence on teachers' satisfaction in the study, it is noted that reading and writing materials were inadequate in Elgeyo Marakwet County. In addition, teachers stated that the workload was very high leaving them with little time to rest. It was further found that the school management was not cooperative. Teachers were also not contented with pupils' behaviours and attitude which interferes with conducive learning.

Fourthly, the study established that teachers were not satisfied with the school working conditions. On the same note, Luthans (1992) who found in his study that working conditions is a factor that has a modest effect on satisfaction as according to him, a clean and attractive surrounding tend to make workers happy when doing their work thus increasing satisfaction. The study findings also agree with Sogomo (1993) who noted that the work characteristics for teachers is directly correlated with satisfaction and therefore need for identification in order to change the working environment for continuous satisfaction.

Finally, the results from these findings indicated that majority of the respondents were extremely dissatisfied with the working conditions in their various working stations.

The third objective in the study, which sought to establish how the arrangement of workspace influenced teachers' satisfaction in Elgeyo Marakwet, yielded the following major findings; Firstly, the study found that there is poor demarcation of space for various activities, books were not well arranged in the shelves. In fact, in some schools there were no shelves for keeping reading and learning materials such as books. Findings further revealed that there was inadequate space for movement in class which was attributed to overcrowding in classes.

Secondly, overcrowding makes it difficult for a teacher to effectively communicate and assist each pupil. Due to overcrowding of pupils as well as poor demarcation of space where proper allocation of space had not been done, it was established that spaces available was not user friendly. In addition, it was established that majority of the respondents said that their staffrooms were not attractively arranged.

Thirdly, according to Williams Persaud & Turner (2008) school environment which include instructional spaces planning, administrative places planning, circulation spaces planning, spaces for conveniences planning, accessories planning, the teachers as well as the pupils themselves are essential components of teachers' satisfaction. Conducive working conditions such as good relationships and a suitable workload at schools have positive influences on teachers' satisfaction.

The fourth objective set out to recommend certain viable measures that would be implemented in order to improve satisfaction among primary school teachers in Elgeyo Marakwet County. Consequently, the study sought suggestions and recommendations on the improvement of satisfaction from all the respondents. However, the respondents gave the following suggestions as interventions to increase teachers' satisfaction. These suggestions and recommendations in order of preferences were as follows; Firstly, the study recommends that school management should ensure that school working environment is conducive for teachers in order to enhance the motivation and satisfaction level. This can be achieved by ensuring that there are adequate teaching and learning resources. Having access to adequate books and other teaching materials may make teachers work easier and thus improving their satisfaction level. In addition, administration in any school should come up with their own modalities of ensuring that teachers in their schools are satisfied with their job.

Secondly, the county government in liaison with the Ministry of Education Science and Technology should provide more funds to school managers to expand physical facilities such as classrooms, staffrooms, libraries and games facilities and be able to equip them with relevant facilities.

Thirdly, the parents should participate in putting up additional physical facilities. This can be done through the head teachers seeking good working relationship with parent associations, ensuring that they know the school, share its expectations, problems and successes, work closely with them to ensure provision of service especially in physical development of the school and to publicly recognize their contributions.

Finally, the physical outlook of the school environment is very important in contributing to satisfaction of teachers. There is therefore need for the school management to ensure that the level of aesthetic in their schools is improved. They need to renovate old buildings through paintings and repairs, replacement of leaking roofs, as well as demolishing those buildings that may threaten the lives of teachers and pupils.

5.3 Conclusions

In brief, this study revealed a substantial amount of useful evidence to questions regarding the teachers' satisfaction.

Within the sample of schools participating in this study, evidence revealed that majority of teachers were not satisfied with the physical appearance of their schools. This was evidenced by teachers complaining of the old and dilapidated buildings,

leaking roofs, shortage of toilets, poor book shelving where some schools did not have shelves as well as inadequate desks for pupils to sit on and learn.

- (i) The current study draws several conclusions from its findings. Firstly, physical appearance of the school like classroom space, class size, clean environment and wall paintings attracts teachers and contributes to teachers' satisfaction,
- (ii) Secondly, working environment of the teachers like workloads, good relationship with colleagues, workspaces reduces teachers stress, turnover, absenteeism which leads to teachers' motivation, satisfaction, cooperation and effectiveness hence increasing pupils' achievement.
- (iii) Thirdly, findings also revealed that lack of adequate space in a classroom may hinder effective learning. This is due to the fact that some pupils may not be reached by teachers for clarification while others may not concentrate fully on class work. On the other hand, when a class is spacious and well-arranged such that a teacher can easily walk through the aisle, then learning may be active and participative as all children are reached and helped. In addition, pupils can have ample space to read and write during class lessons. This promotes effective learning and may thus improve teacher's satisfaction.
- (iv) Fourthly, according to Abeles (2009), there are several factors that indicates teachers' satisfaction; According to him; working less under supervision, readiness of teacher to work, minimal absenteeism, being well groomed, ability to work for long hours, cooperation, happiness, achieving positive results in terms of academic performance as well as having positive attitude towards working environment were the major indicators of teachers' satisfaction.

- (v) Lastly, the study findings also agree with Sogomo (1993) who noted that the work characteristics for teachers is directly correlated with satisfaction and therefore need for identification in order to change the working environment for continuous satisfaction.

5.4 Recommendations

The sets of recommendations were derived from the study; these were school work conditions, school physical environment and classroom arrangement.

Working conditions to any teacher is very vital. The study recommends that school management should ensure that school working environment is conducive for teachers in order to enhance the motivation and satisfaction level. This can be achieved by ensuring that there are adequate teaching and learning resources. Having access to adequate books and other teaching materials may make teachers work easier and thus improving their satisfaction level. In addition, administration in any school should come up with their own modalities of ensuring that teachers in their schools are satisfied with their job.

The county government in liaison with the Ministry of Education, Science and Technology should provide more funds to school managers to expand physical facilities such as classrooms, staffrooms, libraries and games facilities and be able to equip them with relevant facilities. The parents should participate in putting up additional physical facilities. This can be done through the head teachers seeking good working relationship with parent associations, ensuring that they know the school, share its expectations, challenges and successes, work closely with them to ensure provision of service especially in physical development of the school and to

publicly recognize their contributions.

The physical outlook of the school environment is very important in contributing to satisfaction of teachers. There is therefore need for the school management to ensure that the level of aesthetic in their schools is improved. They need to renovate old buildings through paintings and repairs, replacement of leaking roofs, as well as demolishing those buildings that may threaten the lives of teachers and pupils.

5.5 Recommendations for Further Research

This study was carried out in public primary schools in Elgeyo Marakwet County. The researcher therefore recommends that a similar study on evaluation of the influence of school physical environment on teachers' satisfaction be conducted in both private primary schools and public secondary schools. The researcher also recommends a research on the influence of social environment on satisfaction among teachers in public primary schools in other parts of Kenya.

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APPENDIX I: QUESTIONNAIRE FOR TEACHERS

My name is Jonah Kipsang Kiptum, pursuing a Doctor of Philosophy degree in Sociology of Education of Kenyatta University. I am conducting a study entitled '*An Evaluation of the Influence of School Physical Environment on Teachers' Satisfaction in Selected Public Primary Schools in Elgeyo Marakwet County, Kenya*'. You have been selected as one of the respondents to engage in the study. All the information you give will be used for academic purposes only and will be treated with utmost confidentiality. Do not write your name. Respond to the questions as honestly as possible. Your honesty and cooperation will assist in the success of this study. You are free to participate or leave at whatever stage of the study.

Thank you.

SECTION A: BIO-DATA INFORMATION

1. State your gender
 - a. Male
 - b. Female
2. State your age
 - a. Below 25 years
 - b. 25-34 years
 - c. 35-44 years
 - d. Above 45 years
3. State your marital status
 - a. Married
 - b. Single
 - c. Divorced
 - d. Widowed
 - e. Separated
 - f. Others (please specify)
.....
4. How many years have you been working as a teacher?

- a. Less than 5 years ()
 - b. 5-9 years ()
 - c. 10-14 years ()
 - d. 15-19 years ()
 - e. 20 years and above ()
5. What is your current position as a teacher?
- a. Head of Subject Panel ()
 - b. Games teacher ()
 - c. Senior teacher ()
 - d. Head of Department ()
 - e. Class teacher ()
 - f. Assistant teacher ()
 - g. Any other, please specify.....
6. What is your salary scale?
- a. Ksh 16,000-20,000 ()
 - b. Ksh 21,000-25,000 ()
 - c. Ksh 26,000 and above ()
7. What is your Professional/Academic qualification?
- a. PhD ()
 - b. Masters ()
 - c. Diploma ()
 - d. Certificate ()
 - e. Untrained Teacher ()

**SECTION B: INFLUENCE OF SCHOOL PHYSICAL FACILITIES ON
TEACHERS' SATISFACTION**

On a scale of 1-5 (where 1=strongly agree, 2= agree, 3= neutral, 4= disagree and 5= strongly disagree) please score your extent of agreement on the following variables on how school physical facilities influence your satisfaction.

	Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
A	Classrooms are comfortable and adequate.					
B	Desks are comfortable and adequate.					
C	School has adequate buildings and adequate offices.					
D	School has offices which are well equipped.					
E	Instructional tools, equipment and materials are adequate.					
F	School has enough games equipment and conducive attractive environment which motivates the teachers					

SECTION C: INFLUENCE OF WORK ENVIRONMENT ON TEACHERS' SATISFACTION

On a scale of 1-5 (where 1=strongly agree, 2= agree, 3= neutral, 4= disagree and 5= strongly disagree) please score your extent of agreement on the following variables on how work environment influence teachers' satisfaction.

	Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
A	School facilities satisfy teachers they improve pupils Performance					
B	School facilities enhance satisfaction and hence pupils perform better in Examinations.					
C	When facilities are adequate teachers are Satisfied.					
D	School environment is conducive.					
E	The school has provided adequate reading and writing materials for learning					
G	Learners in my school have positive attitudes towards learning thus, making teaching attractive					
H	There is good communication between learners and teachers in my school					

SECTION D: Influence of classroom arrangement on teachers' satisfaction

On a scale of 1-5 (where 1=strongly agree, 2= agree, 3= neutral, 4= disagree and 5= strongly disagree) please score your extent of agreement on the following variables on how workspace arrangement influence teachers' satisfaction.

	Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
A	There is proper space demarcation for activities.					
B	Books are well arranged in shelves.					
C	There is enough space for movement in class.					
D	Space available is very friendly to all users.					
E	Proper allocation done for each activity.					
F	The staffroom is attractively arranged					
G	Sitting arrangement in the staffroom is comfortable					

SECTION E: Teachers' satisfaction

1. Are you satisfied with your current as a teacher?

i. Yes ()

ii. No ()

If no, what are the reasons for your dissatisfaction?

.....

On a scale of 1-5 below, rate the level of your satisfaction as a teacher in your current school.

- 1. Very satisfied ()
- 2. Satisfied ()
- 3. Somehow satisfied ()
- 4. Unsatisfied ()
- 5. Very unsatisfied ()

On a scale of 1-5 (where 1=strongly agree, 2= agree, 3= neutral, 4= disagree and 5= strongly disagree) please score your extent of agreement on the following variables on teachers' satisfaction.

	Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
A	The working environment here is awesome					
B	I am happy with the school management					
C	Given chance, I would like to remain here for sometime					
D	I have a cordial relationship with my colleagues					
E	I love my and profession					

In your opinion, what measures should be taken in order to improve satisfaction among teachers in public primary schools in Elgeyo Marakwet County?

**APPENDIX II: INTERVIEW SCHEDULE FOR HEAD TEACHERS, CSO
AND ASSISTANT COUNTY DIRECTORS OF EDUCATION**

1. In your understanding, what is the meaning of teachers' satisfaction?

2. What are the indicators for satisfaction among teachers?

3. In your opinion, do you think public primary school teachers are satisfied with their profession? Give reasons for your answer

4. What are some of the school physical environmental factors that may influence teachers' satisfaction?

5. Explain how in your opinion the school physical facilities influence teachers' satisfaction

6. How does the work environment influence teachers' satisfaction?

7. How does workspace arrangement influence teachers' satisfaction?

8. In your opinion, what measures should be taken in order to improve satisfaction among teachers in public primary schools in Elgeyo Marakwet County?

APPENDIX III: OBSERVATION SCHEDULE

1. Information about the School

1.1 Name of the school, zone and Sub-County:

1.2 Location of the school targeted for assessment (CHECK ALL THAT APPLY):

- | | |
|--------------------------|--|
| <input type="checkbox"/> | 1. Urban |
| <input type="checkbox"/> | 2. Semi urban (within 20 kilometres of an urban setting) |
| <input type="checkbox"/> | 3. Rural |
| <input type="checkbox"/> | 4. Other (SPECIFY): |

2. Classrooms

2.1 Total number of classrooms available at the school.

2.2 Please provide the following information for each classroom (ADD ADDITIONAL TABLES IF NEEDED).

Observation	General description
1. Classroom name or number	
2. Number of places for pupils to sit (i.e., maximum number of students)	

who can sit in the room at one time)	
3. Availability of the furniture and its state	
4. The state of the physical buildings	
5. The topography of the school environment	

Rate the **QUALITY** of the following items for each classroom on a scale of 0 to 2 (0 = not able to assess/does not exist; 1 = needs improvement; 2 = good).

Assessment item	Quality of the item
1. Location (i.e., accessibility)	
2. Electricity (available 24 hours per day)	
3. Lighting	
4. Ventilation (heating/cooling)	
5. Seating for teachers	
6. Seating for work in small groups	
7. Access to toilets and hand-washing facilities	

2.3 General observations and comments related to classroom facilities.

3. Classroom arrangements

3.1 Total number of desks in the class.

3.2 Please provide the following information for each classroom.

Observation	General description
1. Number of desks for pupils	
2. Approximate size in square meters or square feet of the classroom	
3. Availability of teaching resources	

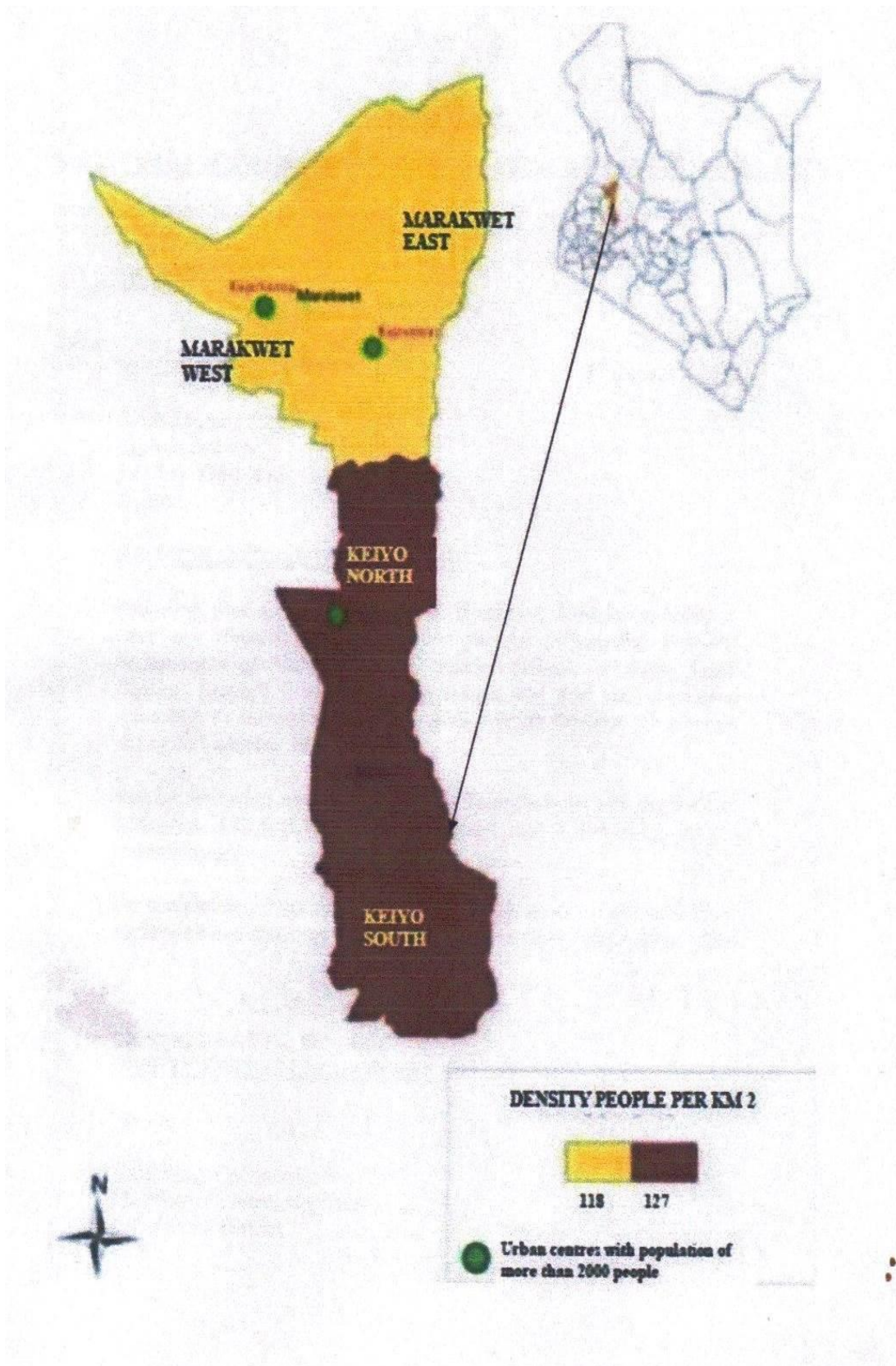
3.3 Rate the QUALITY of the following items for each classroom on a scale of 0 to 2 (0 = not able to assess/does not exist; 1 = needs improvement; 2 = good).

Observed item	Quality
1. Location (accessibility)	
2. Electricity (available 24 hours per day)	
3. Water (available 24 hours per day)	
4. Lighting	
5. Ventilation (heating/cooling)	
6. Space for books and materials	
7. Study area for students	
8. Condition and age of books and materials	

Observed item	Quality
9. Types and variety of books and materials	
10. Computer access	
11. Internet access	
12. Access to toilets	

3.4 General observations and comments related to the school physical facilities, work environment and classroom arrangement.

APPENDIX IV: MAP OF THE STUDY AREA



APPENDIX V: SCHOOL AUTHORIZATION LETTER



KENYATTA UNIVERSITY GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: E83/CE/27685/2013

DATE: 9th February, 2016

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

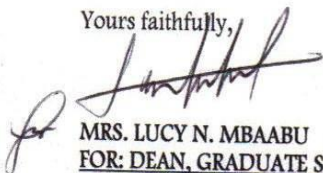
RE: RESEARCH AUTHORIZATION FOR JONAH KIPSANG KIPTUM- REG. NO. E83/CE/27685/2013

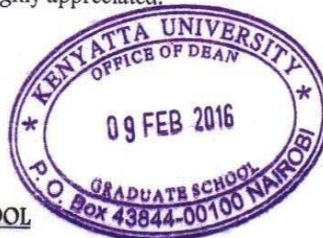
I write to introduce Mr. Jonah Kipsang Kiptum who is a Postgraduate Student of this University. He is registered for Ph.D degree programme in the Department of Educational Foundations.

Mr. Kiptum intends to conduct research for a Ph.D Proposal entitled, "An Evaluation of the Influence of School Physical Environment on Teachers' Satisfaction in Selected Public Primary Schools in Elgeyo Marakwet County, Kenya".

Any assistance given will be highly appreciated.

Yours faithfully,


MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL



EO/rwm

APPENDIX VI: NACOSTI AUTHORIZATION LETTER



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone +254-20-2213471,
2241349,3310571,2219420
Fax: +254-20-318245,318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
when replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref No.

Date:

NACOSTI/P/16/25583/9960

29th April, 2016

Jonah Kipsang Kiptum
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*An evaluation of the influence of school physical environment on teachers' satisfaction in selected public primary schools in Elgeyo Marakwet County, Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **Elgeyo Marakwet County** for the period ending **28th April, 2017.**

You are advised to report to **the County Commissioner and the County Director of Education, Elgeyo Marakwet County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.


BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO



Copy to:


The County Commissioner
Elgeyo Marakwet County.

The County Director of Education
Elgeyo Marakwet County.

National Commission for Science, Technology and Innovation (NACOSTI) 9001-2008 Certificate

APPENDIX VII: RESEARCH PERMIT

<p style="text-align: center;">CONDITIONS</p> <ol style="list-style-type: none"> 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit 2. Government Officers will not be interviewed without prior appointment. 3. No questionnaire will be used unless it has been approved. 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries. 5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report. 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice 	 <p>REPUBLIC OF KENYA</p>  <p>National Commission for Science, Technology and Innovation</p> <p>RESEARCH CLEARANCE PERMIT</p> <p>Serial No. A 8853</p> <p>CONDITIONS: see back page</p>
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<p>THIS IS TO CERTIFY THAT:</p> <p>MR. JONAH KIPSANG KIPTUM of KENYATTA UNIVERSITY, 0-30129 CHEPKORIO, has been permitted to conduct research in Elgeyo-Marakwet County</p> <p>on the topic: AN EVALUATION OF THE INFLUENCE OF SCHOOL PHYSICAL ENVIRONMENT ON TEACHERS' SATISFACTION IN SELECTED PUBLIC PRIMARY-SCHOOLS IN ELGEYO MARAKWET COUNTY, KENYA</p> <p>for the period ending: 28th April, 2017.</p> <p>..... Applicant's Signature</p>	<p>Permit No. : NACOSTI/P/16/25583/9960</p> <p>Date Of Issue : 29th April, 2016</p> <p>Fee Received :Ksh 2000</p>  <p>..... Director General National Commission for Science, Technology & Innovation</p>
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