

**ASSESSMENT OF THE IMPLEMENTATION OF MINISTRY OF  
EDUCATION SAFETY GUIDELINES ON PHYSICAL INFRASTRUCTURE  
IN PUBLIC SECONDARY SCHOOLS IN NAIROBI WEST REGION, KENYA**

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## **DEDICATION**

I dedicate this dissertation to my wonderful family. Particularly to my understanding and patient husband, John Maina, who has put up with these many years of this study, and to our precious children, Patrick, Purity and Elijah who are the joy of our lives, may this work motivate and encourage you to pursue your dreams. To my parents, Elijah Gatua and Ruth Wangari who believed in diligence and pursuit of academic excellence, this work is also dedicated to you.

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## ABSTRACT

Safety of learners is central to the provision of education in any country. Unsafe schools can emanate from inappropriate school physical infrastructure among other factors. It is in this respect that this study assessed implementation of Ministry of Education safety guidelines on physical infrastructure in Nairobi West Region. All (25) public secondary schools in the study area were stratified according to administrative districts, type and category. A representative sample of 15 schools, 240 students and 43 teachers was randomly selected. Fifteen head teachers and six Education officers were purposively included in the sample. For data collection, the study used both quantitative and qualitative approaches, where convergent parallel design was employed. Questionnaires were used to gather information from head teachers, teachers and students whereas Interview guide was used to collect data from District Education Officers (DEOs) and District Quality Assurance and Standards Officers (DQASOs). Observation guide was used to complement other data collection instruments. Research questions addressed the following themes; safety status of physical infrastructure, factors affecting implementation of safety guidelines, involvement of stakeholders in the implementation of Ministry of Education safety guidelines on physical infrastructure, attitude of respondents towards implementation of Ministry of Education safety guidelines on physical infrastructure, and how to enhance implementation of safety guidelines in schools. Inferential statistics used for testing of null hypothesis was One Way Analysis of Variance (ANOVA) at 0.05 level of significance. Data were analysed using both descriptive statistics and narrative techniques. The results of the study indicated that most schools had not fully implemented MOE safety guidelines on physical infrastructure. Testing of null hypothesis indicated that there was significant difference between head teachers' and teachers' attitude towards implementation of MOE safety guidelines and the safety status of physical infrastructures in public secondary schools in Nairobi West Region. The researcher recommended formulation of sound MOE safety guidelines implementation policies and provision of adequate resources to enable effective implementation of safety guidelines in schools. The researcher suggested further research on the impact of school facilities on students' achievement, attendance, behaviour, completion rate and teacher turnover rate in schools in Kenya. Use of action research in provision of safe and protective school environment was also a suggested research area.

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**LIST OF ABBREVIATIONS AND ACRONYMS**

ANOVA	Analysis of Variance
BOG	Board of Governors
CBO	Community Based Organization
CWS	Church World Service
DEB	District Education Board
DEO	District Education Officers
DQASO	District Quality Assurance and Standards Officers
ESP	Economic Stimulus Project
IPT	Independent Project Trust
ITOP	Invitational Theory of Practice
MOE	Ministry of Education
MOEST	Ministry Of Education Science & Technology
NGO	Non Governmental Organization
PDE	Provincial Director of Education
PTA	Parents Teachers Association
SSC	School Safety Contact
SSCOS	School Survey on Crime and Safety
SWAP	Sector Wide Approach to Planning
USDE	United States Department of Education

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Effective teaching and learning can take place only in a safe and secure environment. School safety encompasses the total learning environment including, learners, classrooms, school compound, parents and the community (Crowe, 1991). According to Squelch (2001), a safe school is one that is free from danger and possible harm, where non educators, educators and learners can work, teach and learn without fear or ridicule, intimidation, harassment, humiliation or violence. Carter (2001) asserts that, the actualization of the goals and objectives of education require the provision of safe physical facilities, this is because a direct relationship exists between the quality of school's physical facilities and the quality of the products of the school.

According to Elianson & Frank (2002), taking care of basic safety of a school's physical infrastructure is an essential step towards ensuring school safety and security. This is premised on the notion that a safe and secure physical environment would make it easy for the school to address issues that threaten its safety. Unsafe physical infrastructure in a school has effects on child care, health, hygiene and sanitation (Munyasi, 2002). These effects underscore the urgent need for enhanced safety measures in learning institutions in order to provide safe school environment as defined in the subsequent paragraphs.

The term safe school has been defined by Donmez & Guven (2002) as places where students, teachers and staff feel physically, psychologically and emotionally free, and where enriched school programme nurture students' skills. Ogle & Tan



(2005) have defined safe school environment as places where positive relations exist between managers and teachers, teachers and students and among students themselves, and school staff with each other. Stephens (1995) stated that safe school enabled teachers to teach and students to learn in a warm and favourable environment where there is no room for fear and threats. Celik (2000) describes safe schools as organizations where learning and efficiency is important for everyone and where students are expected to be successful and are given space to display their social skills. Offering a more detailed definition, Kadel & Follman (1995) states that, a safe school environment is a place where teamwork is adopted as a policy, the school policy is clear, students and teachers expectations are valued, active cooperation from the environment is important and social activities abound.

Every country to a certain extent is concerned with the issue of safety in learning institutions. This is as a result of recurrent accidents and disasters in schools, which include; fire, floods and collapsing of buildings among others. According to Munyasi (2002), disasters have a direct effect on the life, health, hygiene, sanitation, shelter and security of the school. Policies and guidelines that address safety needs of students, school personnel, community and the physical plant of the school have been systematically effected in many parts of the world. As pointed out by Schneider (2002), the United States of America Department of Education (U.S.D.E) requires safety policies on physical infrastructure in schools to be strictly enforced in view of the threats posed by terrorism, drug related violence, proliferation of firearms and natural disasters.

National crime prevention in Australia, in cooperation with other Commonwealth and state partners has worked to develop a consistent approach to school safety across all states and is investing in long term projects that aim to

strengthen the capacity of schools, their staff and communities. A comprehensive review of school based prevention project and policies have been undertaken, innovative and restorative approaches that deal with safety in schools have been piloted in Queensland and the Australian Capital Territory (Shaw, 2002).

In promoting safe school environment in South Africa, current approaches on enhancing school safety in South Africa have been put in place, they include; exemplary programmes such as “Tiisa Thuto”, “Crisp” and “Cass” (Mgadla, 2006). “Tiisa Thuto” involves developing partnership between schools, parents, local business and community organizations in implementing model programmes that address the needs of individual schools. The “Crisp” project organizes school safety teams to link parents, schools, local organizations and police. “Cass” is a comprehensive model involving local community partners, national government development guidelines and support materials for school manager, educators, and safety committees.

Uganda has implemented the Safe School Contract (S.S.C) as one of the identified interventions which strengthen the role of teachers, pupils, parents and their involvement in children’s education. The Ugandan Ministry of Education and Sports together with United States Agency for International Development (USAID) introduced more than 200 schools to S.S.C by the year 2008 so as to enhance safety in school. Through the experience in the 200 supported schools, S.S.C offers a feasible mechanism for promoting safety in schools through strengthening school-community partnership and child participation.

Since the attainment of independence in 1963, Kenyan Government has committed itself to improving standards of education at all levels. This commitment

has been driven by the need to provide education as fundamental human rights. It is for this reason that the government has from time to time appointed various educational commissions, committees and task forces such as Ominde Commission (1964), Commission of Inquiry into the Education System of Kenya (1999), Task Force on the harmonization of the legal framework on Education, Training and Research (2009) and Task force on the realignment of the Education Sector to the Constitution and Vision 2030(2011) among others to address various challenges facing education sector including safety of schools' physical infrastructure

Following the Kyanguli Secondary School tragedy in 2001, the then Director of Education in Kenya wrote a circular on Health and Safety standard guidelines in Educational institutions. The circular was intended to direct all educational managers, head teachers and other stakeholders under the then general direction of Ministry of Education Science and Technology (MOEST), Provincial Education Boards (P.E.B) and District Education Boards (DEB) to review their institutional safety strategies. In the same circular all stakeholders were reminded that educational institutions in the country are for the greater part of the year, home to majority of the students. It was also stressed in the circular that in the previous years, there had been a number of incidences of fire and other health risks situations in the learning institutions and hence the review of their safety standards (MOE, 2001).

In 2003, the Ministry of Education entered into a partnership programme, "School Safe Zones" with Church World Service (CWS). The programme promotes enhanced safety for learners in schools. A team of experts compiled safety standards manual for use in Kenyan schools comprising the following issues; safety in physical infrastructure, safety in school environment, health and hygiene safety, food safety, safety against drug and substance abuse, safety in teaching and learning

environments, social-cultural environment of the school, safety of children with special needs, safety against child abuse, transportation safety, school community relations and safety on school grounds (MOE, 2008). The manual embraced diverse issues that impinge upon the safety of learners, personnel, parents and the catchment communities around the schools. Knowledge of school safety laws and regulations provide administrators with the authority to know what is allowed, what is forbidden, as well as what actions are considered to be an obligation to the school. It is in view of this that the current study assessed the implementation of Ministry of Education safety guidelines on physical infrastructure in schools as outlined safety standards manual for schools in Kenya (See Appendix VII).

According to Eliason and Frank (2002), ensuring safety of school's physical facilities is an essential step towards providing safe learning environment in institutions of learning. They also provide an safe environment in which children can be protected from threats such as fire outbreaks and bullying among others and learning can take place since children who feel safe are both psychologically and physiologically more receptive to learning.

Physical infrastructure in the current study will include; classrooms, dormitories, offices, toilets, libraries, laboratories, kitchen, perimeter fence, gates, dining hall, water tanks, playground equipments among others. Such facilities should be appropriate, adequate and appropriately located, devoid of any risks to the users or to those around them. They should also comply with the provisions of the Education Act (Cap 211) and Ministry of Public Works Building Regulations and Standards (MOE, 2008). It is against this background that the current study assessed the implementation of Ministry of Education safety guidelines on physical infrastructure in Public Secondary Schools in Nairobi West Region, Kenya.

## 1.2 Statement of the Problem

Educational institutions in Kenya have experienced several disasters. These have led to loss of precious lives, damage of properties and injuries through incidences of fire and other health risk situations. Some of such cases include; St. Kizito Mixed secondary school where boys invaded the girls' dormitory on July 13<sup>th</sup> 1991 and raped more than 70 girls, with 19 girls losing their lives in the scuffle and Kyanguli secondary school where 68 students were burnt to death in a dormitory fire on March 25<sup>th</sup> 2001. These incidents were partly associated to lack of adequate safety measures in the physical facilities involved (Ndirangu, 2007).

In Nairobi West Region, a form three student was burnt to death when the dormitory in which he was sleeping was set ablaze (PEDs Office Nairobi, 2008). At school B in the region under study, a dormitory of 68 form one students burnt down when students were in for the night studies. A report compiled by Lang'ata District Education's Office (MOE, 2010), indicated that school management had not fully adhered to the Ministry of Education's safety guidelines on physical infrastructure since windows had grills; this could have hindered any meaningful evacuation process had the students been trapped in during the incident.

Reports compiled by the Nairobi Provincial Director of Education's office (MOE, 2010) indicated that, three Public Secondary Schools in Nairobi West Region experienced disasters in their physical infrastructure when one had its sanitation facilities collapse in January 2010 causing acute health risk to school community, a perimeter wall in a school collapsed in April 2010 due to heavy rains and weak foundation hence exposing the school community to security threats. The third school had its dormitory burnt down in August 2010 creating congestion in other dormitories

and disrupting learning (MOE, 2010). The same school burnt down another dormitory in July 2011 while parents were still putting up a new dormitory to replace the one that had been burnt earlier.

The Reports further indicated that five schools in Nairobi West region required repair of their physical facilities, perimeter fence, play grounds, water and sanitation facilities. Priority safety and security needs included more permanent classrooms, secure gates, toilets, electricity and buildings that have fully complied with safety guidelines provided by the Ministry of Education. Four schools in the region were reported to have lacked school based health initiatives and basic security needs such as first aids kits and fire extinguishers.

The persistent recurrence of safety problems related to physical infrastructure in public secondary schools in this region pose serious questions that demand answers if similar cases are to be avoided in future. It was therefore necessary to assess the implementation of Ministry of Education Safety guidelines on physical infrastructure in public Secondary Schools in Nairobi West Region, Kenya.

### **1.3 Research Questions**

In the process of assessing the implementation of Ministry of Education Safety Guidelines on Physical Infrastructure, the study was guided by the following research questions.

- a) To what extent have public secondary schools in Nairobi West Region implemented Ministry of Education safety guidelines on physical infrastructure?

- b) What factors affect the implementation of Ministry of Education Safety guidelines on Physical Infrastructure in Public Secondary Schools in Nairobi West Region?
- c) To what extent are Schools' stakeholders involved in the implementation of Ministry of Education Safety guidelines on Physical Infrastructure in Nairobi West Region?
- d) What are the Attitudes of headteachers, teachers and students towards implementation of Ministry of Education safety guidelines in public secondary schools in Nairobi West Region?
- e) How can implementation of Ministry of Education safety guidelines on physical infrastructure in public secondary schools in Nairobi West region be enhanced

#### **1.4 Research Hypothesis**

HO: There is no significant difference between head teachers' and teachers' mean attitude towards implementation of MOE safety guidelines and the safety status of physical infrastructures in public secondary schools in Nairobi West Region.

#### **1.5 Significance of the Study**

The findings from this study are hoped to improve institution's performance as cited by Armstrong (2008) that, the tangible benefit from improved safety in physical infrastructure include; high productivity, lower work absenteeism, lower costs of accidents and litigation, meeting clients' demands and improved staff morale and employee relations.

It is hoped that, findings from this study will help administrators in the learning institutions to develop and institutionalize safety programmes which will be supported by top management and be given a mandate to educate school community on safety issues and enforce safety rules and regulation. This concurs with Flippo (2004) and Sagimo (2002) who asserts that if employees of any organisation are to be effective, then employers must have a definite obligation to ensure safety of institutions' physical infrastructure.

Teachers will be provided with information regarding safety of physical infrastructure in schools. This could improve their performance as cited by Keller (2003) that, safe working condition can have a positive impact upon job satisfaction, attendance, effort, effectiveness and morale. Keller (2003) further asserts that, teachers should be given an opportunity to assess safety of their working environment , this agrees with Long (2000) who indicated that, just as students' attitude and behaviour are impacted by their physical surroundings, teachers are also influenced by safety status in their work place.

It is hoped that the study will provide information to school designers and architects on how to involve school community in projects being implemented in order to incorporate their ideas regarding safety of the physical infrastructure. According to Keck (1994), school design should consider making learners, teachers and other members of the school community feel safe while in school.

Students will be provided with knowledge which could assist them to enhance safety of physical infrastructure in their schools. Kileen, Evans and Danko (2003) states that students should be knowledgeable about their safety while in school



premises and should be included in facility design in an attempt to increase ownership.

Educational leaders are hoped to acquire information that could assist them to develop tools that can be used on physical facilities safety appraisal which is one of the many roles they play. They should therefore be equipped with a general understanding of the relationship between safety of physical facilities and the learning environment. This can be supported by Lark's (2001) argument that the government should deem it necessary to closely investigate the effectiveness of government's policies implementation in schools.

The identification of mechanisms to ensure safety, which is central to effective learning in schools, would enable schools stakeholders to provide quality education as called upon by the government (MOE, 2008). It is hoped that the study will provide information that could prompt all stakeholders in the schools under study to revitalize their efforts in ensuring safety measures are implemented in their schools.

The finding from the study could provide feedback to the Ministry of Education officials such as Education officers and Quality Assurance and Standards officers who are charged with the responsibility of carrying out monitoring and evaluation of the implementation of Government policies in schools. This concurs with Cotton (2006) that supervision of implementation of government policies is a common element in well managed, safe and orderly schools.

It is hoped that findings from the study will prompt other Government sectors and nongovernmental organizations to collaborate with the Ministry of Education to ensure that all schools in the country are safe places for all children. Educational planners could also benefit from the findings of the study as it is prudent for them to

bring up buildings that are up to safety standards in consideration of Ministry of Education guidelines for designing schools to reduce accidents (Hammond, 2003). They should also ensure that students are provided with information regarding minimizing or eliminating risky conditions or threats that may cause accidents, bodily injuries as well as emotional and psychological distress.

The society is hoped to benefit from the findings of the study in that many parents and guardians will comfortably take their children to school and be assured of their safety while in schools. This concurs with Cash (1993), who asserted that, availability of safe physical infrastructure and continued maintenance of buildings increases the demand for and access to education.

Besides, the study will make recommendations to the education stakeholders that may help in the decision making and improved strategies on implementation of safety guidelines on physical infrastructure in public secondary schools in Nairobi West region, Nairobi County and later spill over to other Counties.

The study is hoped to provide new knowledge on implementing safety guidelines in schools through people, policies, programmes and processes as explained in the Invitational Theory of Practice that was used to guide the study. The study is also hoped to serve as a spring board for other researchers as well as a basis for innovations in future improvements of safety standards in learning institutions.

According to Hale (2002), much research has continued to focus on pedagogical and curriculum trends and not on safety of learners and educators. Therefore the findings of the study will provide information on implementation of the Ministry of Education Safety guidelines on physical infrastructure and add substantial

and original contribution to knowledge about safety in schools. The study could also act as a basis for other research regarding safety in schools.

### **1.6 Scope and Delimitation of the study**

The study delimited itself to public secondary schools in Nairobi West region and not in private secondary schools given that safety problems are reportedly higher in public secondary schools as indicated by the Chairman of Kenya Private Schools Association (2001) that private schools have fewer problems because open door policy between students, teachers and administrators is highly encouraged and valued.

The study area was delimited to Nairobi west region because reports compiled by provincial director of education's office, Nairobi (MOE, 2011) indicated that most schools in this region had not fully complied with the Ministry of Education safety guidelines on physical infrastructure. Although safety issues involve the entire school community, participants in this study that were sampled from the selected schools included; headteachers, teachers and students, District Education officers and Quality Assurance and Standards officers since they are at the centre of teaching learning process.

### **1.7 Limitations of the study**

Safety standard manual for schools in Kenya deals with many areas of school safety but due to limited time, finances, data inaccessibility and unanticipated occurrences this study limited itself to the area of safety guidelines on physical infrastructure. This is a crucial safety issue in schools as stated by Elianson & Frank (2002) that, taking care of the schools' physical infrastructure is an essential step towards ensuring school safety and security.

The researcher's subjectivity cannot be completely ignored because a researcher could have an influence on the interpretation of the findings. However, since the participants were allowed to express their views, the effect of subjectivity was balanced with objectivity.

The researcher used questionnaires as the main data collection instruments, although Kerlinger (2002) asserts that questionnaires are limited in that most respondents do not take them seriously so the return rate is normally very low, the researcher personally administered the questionnaires in order to attain the required return rate.

Since data was collected during the school term calendar, the researcher was seen as interfering with the schools' programme. Some head teachers considered the issue of safety guidelines implementation as sensitive and failed to provide required information. To overcome this, the researcher explained to the respondents that their responses would be handled confidentially and that the study was purely for academic purposes.

Available information at the districts in Nairobi west region was limited in that these districts are newly started and had not gathered adequate information and statistics. Therefore, the researcher consulted Nairobi's provincial director of education's office for more information.

## **1.8 Theoretical Framework**

The study used Invitational Theory of Practice (ITOP) to understand the implementation of government policies in schools. It is a leadership theory that was propounded by (Purkey & Novak, 2001). This theory is a collection of assumptions that seek to explain phenomenon and provide a means of intentionally summoning

people to realise their relatively boundless potential in all areas of worthwhile human endeavours. It is worth noting that Invitational theory of Practice is not designated to supplant most other educational or therapeutic strategies that have demonstrated value in creating safe schools. Rather, it adds to and strengthens existing programmes by providing a theoretical framework that addresses the total environment and culture of the school (Drejer, 2002). Some of the other theories that are related to school safety include: mental framework theory, social disorganization theory, social control theory, school climate theory, system theory, subculture theory and rational theory.

Born as a reaction to the classical educational practices used in schools, Invitational Theory of Practice aims to change the limited communication styles between school members to ensure safety in school plant (Purkey, 1999). According to the advocates of the theory, there are five factors that affect the appeal of schools; People, Places, Policies, Programmes and Processes. Invitational Theory of Practice states that these five factors make schools more socially appealing and safe (Purkey & Schmidt, 1996). The five 'Ps' factors are discussed in relation to the current study;

**People-** Although all parts of a school are vital to its operation, from the standpoint of Invitational Theory of Practice; people are the most important part. They create and maintain the invitational climate that is necessary for safety in schools (Purkey & Novak, 2001). The Invitational Theory of Practice requires unconditional respect for people. This respect is manifested in the caring and appropriate behaviour that people exhibit towards themselves and others, in the quality of life reflected by the places they create and inhabit, by the policies and programmes they establish and support and through the processes employed to sustain their organization and environment. People component is very crucial in the current study given that school human resource, which comprises managers, teachers,

students, support staff and parents are instrumental in safety issues in the school and when overlooked, they hamper effective implementation of safety policies in schools (Rugut, 2003, Omolo & Simatwa, 2010).

**Places-** when seeking to change an environment, the most obvious place to begin is the physical setting. Any part of the physical plant that is unpleasant, unattractive, littered, grimy, dusty or dingy is disinviting (Purkey & Novak, 2001). A negative physical place affects school members negatively while comfortable and aesthetically pleasing features make schools more appealing. The entrance, classrooms, waiting areas, corridors, canteens, staffrooms, social and sports facilities and overall environment of the school have direct effects on individual in the school (Schneider, 2002). Invitational Theory of practice will assist in identifying factors that that can be altered, adjusted or improved to create a more inviting physical place since creating of pleasant and safe physical environment is a major way that professionals demonstrate their concern for the people they seek to serve.

**Policies-** The places people create are closely related to the policies they establish and maintain. Policies refer to guidelines, rules, procedures, codes and directives that regulate the ongoing functions of the school (Drejer, 2002). It is not the policy itself as much as what the policy communicates that is vital to the invitational Theory of Practice (respect or disrespect, trust or distrust, optimism or pessimism, intentionally or unintentionally). Policies reveal the perceptual orientations of policy makers (Purkey, 1999). Invitational Theory of Practice in the current study will be used to assist all who are concerned in the implementation of policies; students, teachers, parents, administrators, community and support staff in becoming responsible for their own behaviour.

**Processes-** Another element that can make a school more appealing and safe is the processes used by managers to interact with the social environment and cooperate with other organizations. Processes include issues such as unity, democratic activities, cooperation efforts, guidance in ethics and human activities. More effective processes aim to develop the mutual interaction between the school, families and students (Purkey & Stanley, 1991). They include all procedures and plans that assist long-term and continuous stakeholders' involvement in school policies implementation.

**Programmes:** A good impression may be made on school members and the environment by developing school programmes that address human needs at large, instead of those that focus on narrow goals. Incorporating activities for families and the social environment into the school programme, in addition to those geared towards students' and staff also make schools more appealing and safe (Purkey & Stanley, 1991). This concurs with Rugut (2003) who observed that lack of regular communication to sensitize various stakeholders on their roles hampered smooth implementation of policies in schools.

Invitational Theory of Practice requires a holistic approach that encompasses everybody and everything in the school. Ideally, the factors of people, places, policies, programmes and processes should each be intentionally inviting that is; having the knowledge, skills and purpose to communicate with others in ways that promote and develop human beings in general to engage in positive endeavours in life. This creates a total environment where every person is summoned cordially, physically, psychologically and spiritually (Purkey & Strahan, 1995).

These five dimensions of Invitational Theory of Practice are based on four assumptions which give the theory its aim and direction. These assumptions are;

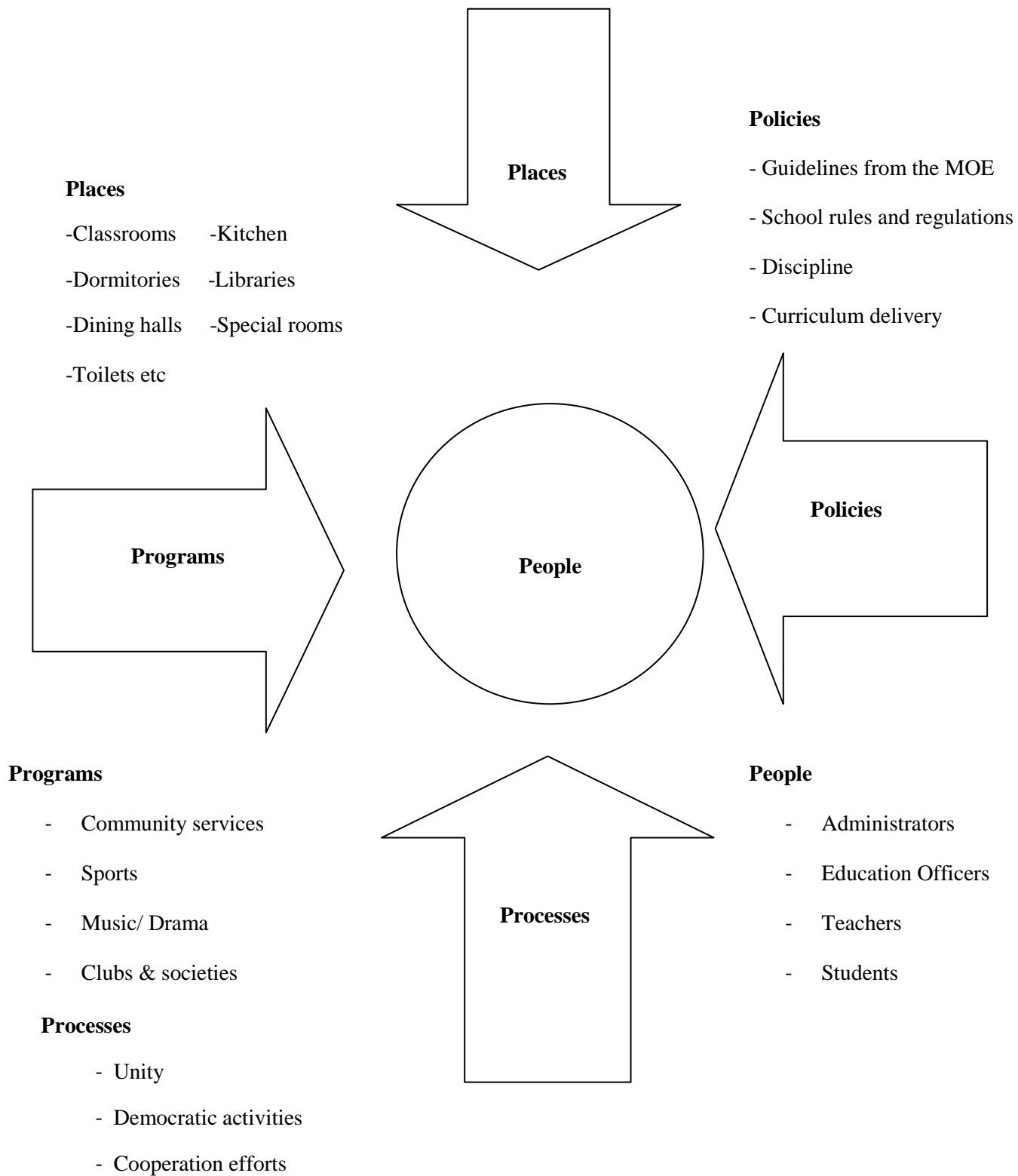
Trust, Respect, Optimism and Intentionality (Purkey & Schmidt, 1996). They provide a consistency stance on conceptual framework from which school administrators and others can effectively create and maintain a truly safe and welcoming academic environment.

From Invitational Theory of Practice perspective, schools are not likely to be changed through the addition of isolated new programmes, policies or actions that ignore the essential nature of the whole school. School safety measures should address school culture, academic achievement and existing student, parent, and other stakeholders (Purkey, 1999). This concurs with Miller (1992), who asserts that, the most effective and efficient programmes for developing safe school environment are those that emphasize on positive alternatives, psychosocial skills and competent behaviour.

Invitational Theory of Practice is suitable for the current study because it presents a way of creating and maintaining schools that are both safe and conducive to academic success. It also provides a guiding philosophy rather than relying on one programme, policy or process. It addresses the total spirit of the school and its goal is to make schools more safe, exciting, satisfying and enriching.

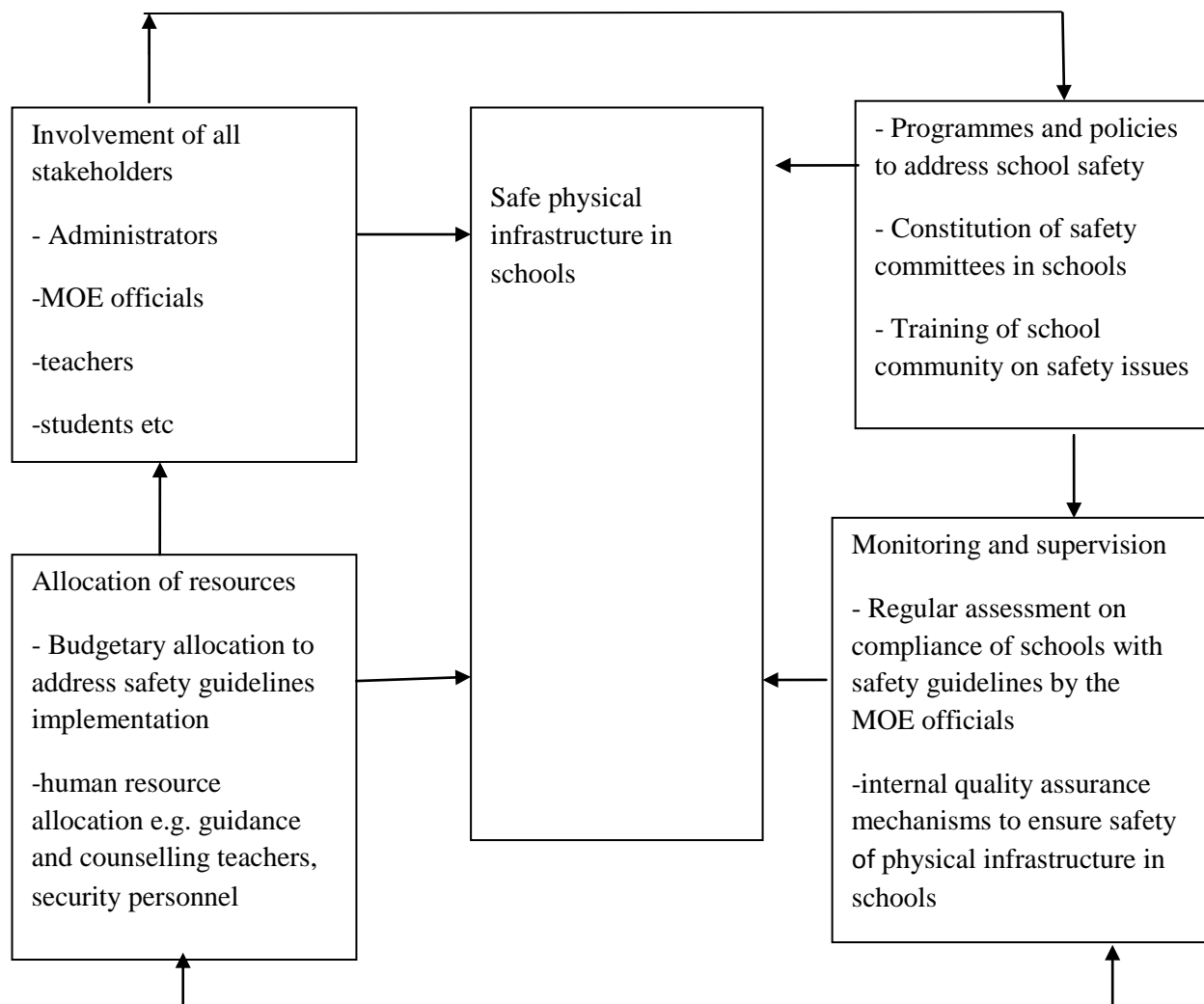
Steady and continuous pressure from people, places, policies, processes and programmes can overcome the biggest challenge of physical infrastructure safety in schools as illustrated in figure 1.1





**Figure 1.1 A model of five “Ps” Theoretical Framework**

Safety of physical infrastructure in schools indicates the level of implementation of safety guidelines as stipulated in government policy regarding safety in schools. Safety of school's infrastructure has several components that should work together as a system. They include; programmes and policies that address school safety, involvement of stakeholders in the implementation of safety guidelines in schools, allocation of resources towards implementation of safety guidelines and supervision of safety guidelines implementation in schools. These components are interrelated as illustrated in figure 1.2



**Figure 1.2: Illustration of interplay of independent variables regarding safety in Schools**

*Source: Adaptation from Safety Standards Manual (MOE, 2008)*

Figure 2 illustrates safe school's physical infrastructure as the dependent variable of the study. The implementation of MOE safety guidelines on safety infrastructure will provide safe school environment where people will feel safe and secure.

Policies regarding attendance, grading, promotion and discipline among others need to be developed and maintained within a cycle of respect for everyone involved. Every school policy needs to be democratically developed, easy to understand and made available to everyone involved. Among the many programmes that help to create safe schools are; community outreach, wellness and enrichment opportunities for everyone in the school. Guidance counsellors play a central role in arranging beneficial programmes.

Stakeholders in a school work as a family. School managers should strive to provide education and training on safety issues, stress reduction and conflict management. Training should also focus on first aid procedures. This view is supported by Armstrong (2008), who asserts that, ensuring safety in a workplace is a vital managerial responsibility, and an organisation that ignores this responsibility does injustice not only to itself and people affected but also to the whole community where organisation operates. Government through various policies give direction concerning safety in educational institutions which if implemented could significantly improve safety in schools. It is then the responsibility of the schools' managers to ensure that safety guidelines are fully implemented. The school administrators should exercise democratic and participatory leadership styles to ensure that students, teachers and support staff own their school and will not engage in any action that is dangerous to the school community.

If careful attention is to be given to the safety of physical facilities in schools, adequate resources should be allocated to ensure; adequate lighting, well maintained buildings and grounds, adequate and clean sanitation facilities, adequate, spacious and safe classrooms, dormitories, laboratories and libraries among other facilities.

Monitoring and supervision of MOE safety guidelines implementation in schools is critical if safe school environment is to be realised. Therefore, it is important for government officers, especially the directorate of Quality Assurance and Standards to plan for regular standards assessments to ascertain how well safety guidelines are being implemented in schools. By so doing they will be able to provide proper feedback to school administrators who in turn will provide safe school environment.

### **1.10 Operational Definition of Key Terms**

The following are operational definition of terms that were used in the study.

**Assessment:** This is a process in which judgement is made whether the sampled school have implemented MOE safety guidelines on physical infrastructure. This is done based on the quality index designed by the Ministry of Education.

**Disaster:** Is a serious disruption of the functioning of school community causing widespread human, material or environmental losses. This could be related to lack of or inadequate implementation of the guidelines related to physical infrastructure of the institution.

**Guidelines:** These are the recommended practices that the school management should undertake to meet the MOE safety standards. It will be used to include criteria or factors such as what tasks should be done, when the task is to be completed, and the mode of receiving feedback regarding the implementation process.

**Implementation:** This is when the school management takes action or makes changes that they have officially decided should take place. This is done based on the

Ministry of Education guidelines on physical infrastructure which if effectively addressed would increase safety in the school.

***Physical Infrastructure:*** Refers to any facility for use in the school to facilitate the provision of services. In this study they refer to; tuition, administration, sanitation facilities and perimeter wall. They also include play grounds in the schools. When they are done in consideration of the Ministry of Education guidelines, schools become safer for their community.

***Safety:*** This is making school's physical infrastructure conducive for the users.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

The chapter provides a review of literature related to implementation of Ministry of Education safety guidelines on physical infrastructure in public secondary schools. A review of related literature indicated that, although research has been done on safety in schools in other parts of the world, little has been done on the same in Africa and more so in Kenya. No research has been carried out directly on implementation of MOE safety guidelines on Physical Infrastructure in Public Secondary Schools in Nairobi West Region, Nairobi County. Literature and studies carried out in other parts of the world that were relevant to this study were considered. Review of related literature in this study was based on four topics: safety status of physical infrastructure, attitude of respondents towards implementation of MOE safety guidelines on physical infrastructure, factors affecting implementation of MOE safety guidelines on physical infrastructure, stakeholders' involvement in the implementation of safety guidelines on physical infrastructure.

#### **2.2 Safety Status of Physical Infrastructure in Public Secondary Schools in Nairobi West Region, Kenya**

Physical facilities play pivotal role in actualization of educational goals and objectives by satisfying the physical and emotional needs of staff and students in a learning institution. Physical needs are met through provision of safe physical structures, adequate sanitary facilities, a balanced visual environment, appropriate

thermal environment, and sufficient shelter space for work and play. Emotional needs are met by creating pleasant surroundings, a friendly atmosphere and an inspiring environment (Lupinacci, 2002). This concurs with Kennedy (2003) who asserts that when the learning process is at the core of design priorities, there is significant likelihood that the physical facilities will positively influence performance. This view is supported by Clark (2001) who pointed out that student who feels safe in school experience positive effect on their learning. In view of this, the current study focused on the assessment of MOE safety guidelines in public secondary schools in Nairobi West region.

Safe school environment is characterized by the presence of certain physical aspects such as a secure wall, fences and gates, buildings that are in good state of repair and well maintained school grounds. The most visible aspect of school's physical infrastructure entails quality of security systems and maintenance of school buildings and grounds. This implies a clean and safe environment that is conducive to education and has security of property, well cared for facilities, furniture and equipment, clean toilets, water and green environment and absence of harassment (Squelch, 2001). Therefore there is a need for research to assess implementation of safety guidelines in schools which ensures these characteristics are adhered to in order to enhance effective teaching learning process.

Reid (2000) advocates the general appearance of buildings as an indicator of the school's tolerance for misbehaviour and by implication, for safety threatening situations. He argues that school buildings must be clean, comfortable and devoid of signs of vandalism, damage and graffiti. This implies that school buildings need to be in a clean condition and that damage and graffiti need to be repaired as soon as possible to prevent further damage through appearance portraying a non- caring



attitude and lack of safety guidelines consideration in schools. This view is further reinforced by Carter and Carter (2001) who asserts that, creating and ensuring school building safety revolves around the physical maintenance of buildings, allows for continued use of space for its intended purpose, and serves as an additional manifestation of ownership and caring. It is prudent for studies regarding safety in schools to be conducted to provide necessary feedback on schools' adherence to safety measures to allow informed decision making. Various studies regarding school safety has been conducted both locally and globally have been conducted as shown in the subsequent discussions.

Cornell, Sheras, Gregory, and Fan (2009) explored the usefulness of threat assessment guidelines in reducing violence in 280 public high schools in Virginia. Their study found out that in schools where threat assessment guidelines were followed, students reported less bullying, felt more comfortable seeking help, and possessed more positive perceptions of the school climate. With this consideration, it was necessary for the current study to address compliance of schools to the MOE safety guidelines implementation in order to provide positive school climate for effective teaching learning process.

A study was conducted (2011) with 751 students in 34 classrooms, spread across seven primary schools in the seaside town of Blackpool, England. Data were collected on students' performance level going into the school year. The researchers comprised faculty from the University of Salford school of Built Environment, in Manchester, England, as well as collaborators from the architecture firm Nightingale Associates. They ranked each classroom on a 1 to 5 scale for 10 different design parameters; light, sound, temperature, air, quality, choice, flexibility, connection, complexity, colour and texture. Each of these parameters were broken down into a

few consideration, light for example, included the amount of natural light entering the classroom, as well as the teachers' ability to manually control the level of lighting. Flexibility took into consideration how well a given classroom could accommodate students without crowding them, in addition to how easily its furniture could be rearranged for a variety of activities and teaching approaches.

The study found that six of the design parameters; colour, choice, complexity, flexibility, connection, and light had a significant effect on learning. Light concerned the amount of natural light in the classroom and the quality of electrical lights it contained. Choice had to do with the quality of furniture in the classroom. Complexity and colour had to do with providing an ample amount of visual stimulation for students in the classroom. The parameters considered in this study are outlined in the MOE safety guidelines since they can impact on the learners' safety. Therefore, the current study sought answers on safety status of physical infrastructure in public secondary schools in Nairobi West region.

Cash (1993) examined relationship between safety of school facilities and student achievement and behaviour. The target population for the study was student in small rural high schools in the commonwealth of Virginia. Schools that were included in the study were high schools located outside urban areas with a senior class population of less than 100 students. Cash (1993) identified a total of 47 high schools to include in her study. Their total school populations ranged in size from 90 to 695 and their senior class populations ranged in size from 12 to 99.

Cash (1993) found that students' achievement scores were higher in schools with better and safe building condition. Students' achievement was related more to the cosmetic condition of the building while student behaviour was related more to

the structural condition of the building. The researcher also found that varying climate control, locker condition, and graffiti were factors that were positively related to the student's achievement. These findings underscore the importance of the current study since a school that has implemented safety guidelines ensure improved safe building conditions resulting to increased student's achievement and desired behaviour.

Hines (1996) examined relationship between safety condition of school facilities and students' achievement and behaviour in urban high schools in the Commonwealth of Virginia. Schools that were included in the study were high schools located in the metropolitan area with populations over 100,000 and schools enrolments over 25,000. Hines (1996) identified a total of 88 schools to include in the study. The study found that condition of the school facilities were affecting student's achievement and behaviour. These findings indicate the need for a study to assess the implementation of safety guidelines in schools which is the focus of the current study.

Lanham (1999) examined relationship between condition of school facilities and student's achievement and behaviour in elementary school in the Commonwealth Virginia. He used a random sample of 300 of 989 elementary schools in Virginia that housed both third and fifth grades students. Of the schools selected, 197 actually participated. The finding of the study was that there was a relationship between building condition and student's achievement. Some building components were more related to student's achievement more than others. For instance, air conditioning, ceiling type, frequency of floor sweeping, frequency of floor mopping, room structure, overall building maintenance, and floor type. Lanham (1999) clearly indicated that safety and appropriateness of school buildings condition is significant in the teaching learning process. Therefore, studies addressing safety guidelines implementation in schools, similar to the current study need to be conducted.

Branham (2000) studied the relationship between inadequate school infrastructure and student's performance using the 226 schools in Houston Independent School District (HISD) for the 1995-96 school years. The focus of the study was relationship between problematic and unsafe school infrastructure and students' achievement. Result of the study provided important evidence that safe school infrastructure has critical impact on students' achievement. Schools with roofs in need of repair, those that rely heavily on temporary buildings and schools with understaffed custodial services provide an environment where students are less likely to attend school. They are also more likely to drop out. In view of this, studies assessing schools' adherence to safety guidelines are necessary since a high quality and safe buildings bring an atmosphere of high student achievement.

O'Neill (2000) investigated the possible impact of school facilities on student's achievement, behaviour, attendance and teacher turnover rates at selected Central Texas Middle Schools in Region X11 Educational Service Centre (ESC) area. The principals of all 76 middle schools in the area were sent survey packets and invited to participate. The actual number of principals who participated in the study was 70 translating to 92% participation rate. In addition to survey data, interviews were conducted with 10% of the principals giving first hand qualitative data. O'Neill (2000) found that there was a positive relationship between academic performance and school building condition. Together with other studies of similar nature quoted above, it is evident that various studies regarding safety of physical infrastructure in schools required to be carried out if desired students' achievement and behaviour was to be realised.

A study was conducted by Oluremi (2005) on creating a friendly school learning environment for Nigerian children. The areas of the study included classroom

environment, provision of infrastructural facilities, and teacher pupil interaction in the classroom setting. Descriptive research design of the survey type was used. Questionnaire was used to elicit information from the respondents. The sample comprised 250 teachers from the selected secondary schools in the state. Data were collected using frequency counts, means and percentages. Results showed that 25% of the schools selected were not child friendly. This was because they lacked infrastructural facilities such as toilet facilities, chairs, desks and tables among others. Most classrooms were not friendly to pupils with disabilities. The study recommended all education stakeholders to strive to make school environment safe, attractive and pleasant in order to enhance teaching and learning and improve teacher productivity. The stakeholders can well be informed about school safety through studies regarding the same hence the importance of the current study.

Researchers such as Okpala (2006), Ndukwe (2002) and Okobukola (2000) among others highlighted the unsafe and gloomy state of the Nigerian school environment. According to Okpala (2006), many school children in Nigeria learn under the shades of trees while many others sit on the floor in their classrooms while learning. Ndukwe (2000) on the other hand found that many schools had no safe and adequate physical infrastructure as well as games and recreational facilities. Okobukola (2000) provided a statistical analysis of the unsafe situations in the Nigerian schools as follows; 12% of the pupils sat on floor, 87% were in overcrowded classrooms, 3% of the schools had no chalkboards, 38% of the classrooms had no ceiling, 77% of the pupils lacked textbooks and 36% of the pupils had no writing materials. From the foregoing, it is evidently clear that most schools fail to implement safety guidelines. It is therefore crucial for researchers to embark on studying safety in schools as is the case with the current study in order to provide school

environments that are conducive enough for the development of appropriate skills, knowledge, interests and attitude in individuals to become responsible citizens.

Magdla, (2006) carried out an investigation on the basic safety and security status of 23 Primary schools and 12 Public Secondary schools in Sedibeng District, South Africa. The study employed phenomenological approach, purposive sampling was used and the main respondents were headteachers. The research instruments used in the study were observation and interview schedules while data was analysed using descriptive statistics and qualitative procedures. The study showed that, township schools were especially vulnerable to unsafe conditions and threats of violence due to among other things, poor resources and infrastructure, their location, especially in and around informal settlement, the type of their building and environmental design.

This concurs with Glickman (2004) who indicates that most schools located in the informal settlement are plagued by decaying buildings that threaten the health, safety and learning opportunities of the users. He also pointed out that a relationship exists between safe physical facilities and learners' performance. However, much research has continued to focus on pedagogical and curriculum trends and not directly on the physical facilities as crucial environment surrounding the learner and the educator. In view of this, the current study focused on the implementation of safety guidelines in public secondary schools in Nairobi West region given that safety of students and teachers is core in the provision of quality education.

Over the years, Kenyan Government has devoted herself to enhancing delivery of quality education through provision of resources and other services to realise this. It is evident that quality education cannot be achieved in unsafe school environment. Therefore, various studies have been conducted to address issues of safety in schools.

Omolo and Simatwa (2010) conducted a study in Kisumu East and West districts on the implementation of safety policies in Schools. The study had a sample of 30 schools, 30 head teachers and a saturated sample of 2 Quality Assurance and Standards Officers (QASOs). Instruments used for data collection included head teachers and QASOs questionnaires, interview and observation schedules. The findings from the study indicated that only 8 schools had fire extinguishers, a total of 38 fire extinguishers were found against a projected demand of 137, this according to the study raised a serious doubt about the fire safety preparedness in Kisumu East and West Public Secondary Schools.

Omolo and Simatwa (2010) further revealed that, having fire extinguishers and training staff on how to use them is one important precaution against fire related disasters yet such trainings were not being undertaken in the schools under study hence compromising safety of school community. The provision of fire extinguishers in some schools was a step to the right direction; however, there was a need to keep them serviced. Majority of boarding schools had old fire extinguishers which had not been serviced hence questioning their usefulness in a fire out break incident. Students spend a considerable length of time in dormitories and classrooms. These buildings should therefore be put up according to the guidelines specifications in order to avoid situations that would compromise safety of occupants. The study by Omolo and Simatwa (2010) recommended more research in the area of school safety to provide policy makers with information regarding safety in learning institutions in Kenya. It is in this line that the current study sought information regarding MOE safety guidelines implementation in public secondary schools.

According to Waudo (2009), effective and quality learning requires adequate and safe physical facilities as this would contribute significantly to a conducive

environment for teaching learning process. This concurs with Mwaria (1995) and Maina (2005) who noted that, availability of varied, appropriate and adequate physical facilities supported by clear policy guidelines enhances learning. Omolo and Stewart (2010) observed that most schools had not complied fully with the safety guidelines since doors and windows of the classrooms, dormitories and other rooms had grills and were opening inwards, this could hinder free flow of evacuees in case of emergencies.

Dormitories, laboratories and halls require to be fitted with emergency doors since they provide alternative egress during emergencies and failure to observe this can compromise security of the users (Comolotti, 1999). Consequently, safe and secure schools are fundamental to students' school successes and achievements (Squelch, 2001). Therefore, the current study assessed whether implementation of safety guidelines in schools remained an ever present priority of school fraternity in order to provide a safe and orderly school environment.

Aketch and Omolo (2010) carried out a research on opportunities and challenges for public primary school teachers in the implementation of Free Primary Education in Kisumu Municipality, Kenya and noted that the pupil to toilet ratio of 30:1 was grossly ignored by a majority of schools despite the fact that provision of sanitation facilities has implication on access and quality of learning. This concurred with the findings of UNESCO (2005). Siringi (2001) reported that overcrowding in public Secondary schools classes and dormitories posed a serious public health and safety risks because it caused death due to stampede in fire outbreak incidents. They further indicated that, conversion of other structures into dormitories due to swelling enrolment brought about by Free Day Secondary Education caused a lot of risks to learners. One of the recommendations they made was that school administration



should peg admission to bed space available to avoid disasters associated with overcrowding in schools' dormitories. Considering this recommendation, it is clearly outlined in the MOE safety guidelines (2008) that dormitories, being the single most used physical infrastructure where learners spend the longest continuous period of time in a day should be kept clean, well ventilated and overcrowding to be avoided under all cost. The current study was apt given that it assessed implementation of such guidelines in schools in the region under study.

Chumba (2006) conducted a study on perception of secondary school teachers and headteachers on the planning of school buildings in Nandi South district. A sample of 23 secondary schools, 23 headteachers and 30 teachers was used in the study. Data collection instruments included; questionnaires, interview and observation guides. The study showed that although classrooms should be built in such a way that longer side with windows run in East to West direction to avoid exposing learners to the sun's harmful radiation, 17 schools had not observed that hence putting the users to risk. Classroom lighting, which depends on proper location of the building, plays a crucial role in academic performance of students. Appropriate lighting improves test scores, reduces off-tasks behaviour and plays a significant role in achievement (Buckley & Shang, 2004).

In Kenya, natural lighting has been the most predominant means of illuminating most school spaces as the schools are either not connected to electricity supply or the use of electricity for lighting is expensive and unaffordable (Chumba, 2006). Safety standards manual for schools in Kenya (2008) states that, in order to ensure adequate natural lighting in the classrooms, orientation of the building should be considered. To establish whether this requirement was being considered in schools, the current study assessed whether implementation of MOE safety guidelines on

physical infrastructure was a comprehensive approach that focused on prevention, intervention and planning.

Kennedy (2003) asserts that, an administration building is commonly used by the public, teachers and students. It should be near the entrance for easy accessibility and security of the school plant. According to Sustainable Building Industry Council (2003), a high performing school administration building has three characteristics: it should be healthy and productive for the users by providing superior indoor quality air, safe and secure environment, it should be cost effective to operate and maintain, and it should be sustainable and user friendly in terms of time consumed moving from one office to the other. Ideally, this building should be centrally located and easily accessible by both internal and external users. This view is supported by Magdla (2006) who indicates that, location of the school's administration should be for convenience and safety of students and the entire school community.

The location also has a lot to do with attractiveness and wholesomeness of the school surrounding. It is a requirement of the MOE safety standards guidelines, whose implementation was being assessed in the current study that school's administration block be suitably located to enhance surveillance of the school operations and for easy detection of any unsafe situation in learning institutions (MOE, 2008)

It is important for school buildings to be painted or white washed regularly because painting has both aesthetic as well as public health values. Schools that are newly painted look neat and habitable while schools that have tarnished peeling and fading paint look dilapidated and unhygienic, giving a negative impression about the management and the mission of the school. Painting and white washing are effective and cheap ways to renovate school buildings (Lady, 2009). As the school age reaches

thirty years, the challenges facing its buildings are not likely to decrease, therefore, school managers are duty bound to carry out preventive maintenance of physical facilities to avoid breakdown and ensure optimal performance of these facilities (Deweese, 1999). To achieve this, school managers need to implement MOE safety guidelines on physical infrastructure which is the focus of the current study.

Mwangi (2008) conducted a study on status of disaster preparedness in public secondary schools in Kiharu division, Murang'a district. The study had the following objectives; to identify the fire disaster gadgets, to find out the training and drills schools have on fire disaster preparedness, and identify the fire disaster plans in schools and also to find out evacuation measures put in place. The study established that, fire disaster gadgets were available in some schools though most of them were dysfunctional, poor environmental conditions such as peeling paint, crumbling plaster, non-functioning toilets, poor lighting, inadequate ventilation and direct sunlight in classrooms affected learning and morale of staff and students, the study linked students' achievement and status of physical infrastructure. It is clear from the said study that some learning institutions fail to comply with the MOE requirements on safety of physical infrastructure hence the need to assess the implementation of these guidelines in schools.

Jagero (2011) carried out an evaluation of school environmental factors affecting performance of boarding secondary students in Kisumu district Nyanza Province. The research designs used in the study were descriptive survey and ex post facto. The population consisted of five headteachers, 140 form four teachers and 609 form four students. The sample size was as follows; five headteachers, 46 form four teachers and 201 form four students. Data was analysed using descriptive statistics and inferential statistics such as linear multiple regression and factor analysis. The

finding from this study indicated that the main problem faced by the boarding students included inadequate and unsafe tuition and boarding facilities, it was also observed that most headteacher, 3 out of 5, had not complied with the MOE safety guidelines regarding provision of sanitation facilities to the required ratios. Studies conducted by Holsinger, Jacob and Migimu (2002) also revealed that, problems faced by students in boarding schools included overcrowding in students' hostels, inadequate and low quality food, scarcity of clean water and inadequate sanitation facilities. All these exposed students to hazardous situations in schools; this could be minimized if schools implemented fully MOE safety guidelines on physical infrastructure as stipulated in Safety Standards Manual for Schools in Kenya (2008)

In another study conducted in Kisumu Municipality by Maoulidi (2008) to assess challenges facing schools in Kisumu Municipality in their efforts to achieve universal primary education and eliminate gender parities in education by 2015, it was established that, majority of the schools were in a state of despair for lack of adequate teaching and learning materials. Class sizes were too large, furniture and light fittings were broken or loose while many others lacked electricity or running water, and some had no access to water at all. A recommendation regarding the status of teachers by UNESCO (1998) advised that; schools building should be safe and attractive in overall design and functional in layout; they should lend themselves to effective teaching and learning process. Schools should be constructed in accordance to MOE (2008) safety standards with view to durability, adaptability and ease economic maintenance. It was important to assess compliance of schools to such guidelines because as Jagero (2011) postulates, most schools in Kenya and elsewhere in Africa do not meet these standards, rather than fostering independent and interest for learning, schools hinder children's progress and potential.

Dierkx (2003) conducted a survey on community- based architectural programming and development of inclusive learning environments in Nairobi's slums. The study used simple random sampling to select ten schools from each of the eight districts in the province for a total of eighty schools. Questionnaires were used as the main data collection instruments to gather information from 38 male and 42 female headteachers of the sampled schools. The study sought information on the safety of physical infrastructure and community members' involvement in the inclusive school environments. Findings from this study indicated that, in Kenya, especially in Nairobi, schools' development is politically motivated. Local politicians and business leaders financially support the construction of five to ten schools per year, mostly in poverty stricken areas, to try to gain votes and public support.

They do so without the sanction of the local government and without consulting students, teachers and parents. Misappropriated private funds, lack of public financial resources, inadequate supervision, lack of professional labour, and inappropriate use of technologies and materials routinely result in low quality school buildings that do not meet the standards set by the Kenyan build code and MOE safety guidelines on physical infrastructure. Therefore, schools end up being unsafe, unhealthy and non conducive to neither teaching nor learning. It was therefore imperative for the current study to be conducted so as to provide feedback for decision making since no meaningful teaching and learning can take place in an environment that is unsafe and insecure to both learners and staff.

The Kenyan government acknowledges the need for better and safe school environment. A governmental commission of inquiry on Kenya's education system attributed declining standards of education to partly on inadequate and unsustainable physical facilities that do not consider MOE safety guidelines on physical

infrastructure (Koech, 1999). The commission further indicated that, although learning and teaching can take place in many settings, a physical educational space that is dangerous, filthy, and haphazardly constructed and lacking basic facilities cannot reasonably fulfil its intended purpose. In addition, school finance trends in Kenya have shown a notable increase in funding for schools' physical infrastructure (MOE, 2008). The current study assessed compliance of physical facilities to the MOE safety guidelines regarding physical infrastructure to ensure that learners and educators are operating in a safe and secure environment.

### **2.3 Factors Affecting Safety Guidelines Implementation in Public Secondary Schools in Nairobi West Region, Kenya**

According to Cash (1993), the total amount of available money for education, the values that the community place on education and other external factors affect safety of schools' physical infrastructure. The resources available to maintain facilities and the selection of school personnel in leadership positions also affect safety and condition of school buildings. In view of the foregoing, the current study, in one of the research questions sought answers regarding factors affecting MOE safety guidelines implementation given that no meaningful teaching and learning can take place in unsafe environment (Squelch, 2001)

Cash (1993) further stated that the school governing bodies which help the leadership develop and internalize a personal philosophy of education is responsible for determining the direction education will move. From that beginning comes a feeling regarding the importance of safe physical infrastructure which houses the educational process. If leadership makes the level of importance high, then emphasis will be placed on creating a safe physical environment which promotes quality

education. This emphasis will evidence itself through security maintenance and custodial staff in adequate numbers and providing them necessary training, supervision and resources to ensure their success. This argument forms a basis for studies to be conducted to ascertain the contribution of school leadership pertaining safety implementation. The current study sought information regarding school management and how they support the initiative of safety guidelines implementation in schools.

Hines (1996) suggests that parental attitude and involvement can affect importance of maintaining school facilities. He further noted that as the building ages, the safety and condition of the building becomes more a product of the performance of the maintenance and custodial staff. Maintenance left undone multiplies upon itself and results in additional needed maintenance. The same holds true for poor custodial performance which could contribute to maintenance problems. Lack of renovation and facility maintenance culture in schools could compromise safety of students and educators hence the need to conduct such a study on safety guidelines implementation in schools.

Edwards (1991) studied the role of parents in the Washington, D.C school system. She found that some schools had very attractive Teachers Parent Associations (PTAs) and others participated in advocacy groups called parents united. Some schools had little or no organised parental involvement. The study established that the PTA budget was a very significant variable. They influenced safety and conditions of their local schools by applying pressure on local elected officials to push for funding from the city, by directing their own energies to improving the situation such as volunteering to monitor and clean the playground each day, by funding improvement project directly, and by supporting certain political candidates or educational

measures. She further found that parents could influence schools to adhere to standards of safety and cleanliness. It was therefore necessary to conduct the current study on safety guidelines implementation in schools since the resulting safety and condition of buildings could affect the student's perception of their own self worth, the value placed on their education by the society and future prospect for attaining a better standard of living.

Mwale (2006) conducted a study in Malawi which examined primary school teachers' perception of the factors contributing to safe school learning environment. Twenty eight primary school teachers from one public primary school in Malawi participated in the study. Data on teachers' perceptions and behaviours were collected through survey. Frequencies and percentages were used to analyze the survey data on teachers' perceptions.

The study, Mwale (2006) found that unsafe school were associated with a number of factors such as; lack of attention by school systems, poor supervision, minimal engagement of pupils in school activities and psychological problems which escalate to school violence and contribute to unsafe school. According to Herrenkohl (2000), individual difference, family and school problems, peer and community influence also contribute to unsafe school. To address these factors, information regarding safety guidelines implementation in schools is critical since a safe environment for teaching and learning is the expectation of most parents, students and educators.

Implementation of safety guidelines in schools cannot be appropriately carried out in schools without accurate information which should be collected through facility audit. According to the planning guide for maintaining school facilities (2003) facility



audit is a comprehensive inventory of school's facilities that provide a standard method for establishing baseline information about components, policies and procedures for a new existing facility. It provides information on the safety status of school's physical facilities. It is carried out by assessing buildings, grounds and equipments, documenting the findings and recommending service options to increase efficiency and reduce waste and save money.

The guide further explains that, facility audits are important because they help planners, managers and staff know what is available, its condition, service history, maintenance needs and location. Provides facts, not guess work, to inform plans for maintaining and improving school facilities and at the same time establish a baseline for measuring facilities maintenance and safety progress. However, an education needs assessment conducted in Kisumu Municipality by Maoulidi, (2007) indicated that the aspect of facility audit was generally overlooked and practically no attention was paid to the maintenance of physical facilities.

The study, Maoulidi (2007) further revealed that several school buildings that were over 30 years had never undergone any renovation or any other form of modernisation in spite of changes in the educational system. Some of those facilities were found to be architecturally obsolete and unsafe hence could not contribute to the offering of functional education. It was also established that maintaining the new buildings, renovating and modernising the old ones as stated in the MOE safety standards manual require considerable expertise and commitment of human and material resources which was adversely inadequate.

Changes in weather conditions and failure to implement MOE safety guidelines on physical infrastructure were found to be responsible for ageing and

deterioration of schools' physical infrastructure making them unsafe for the users. In view of the foregoing, the current study was necessary since school physical infrastructure that is accessible, durable, functional, safe, hygienic and easily maintained need to be part of any strategy to meet the Millennium Development Goal for Education (Nthenya, 2011).

Over the years, school managers have emphasized that physical infrastructure available for academic and non-academic activities are grossly inadequate and unsafe (Reid, 2000). He further states that available facilities in most schools may well be regarded as obsolete in terms of quality and quantity because these facilities were provided when the students' population in schools was reasonably low as compared to the population of the same school presently using the same facilities. This issue is very demanding because it bears direct relevance to the funding of education and most importantly to the quality of outputs of the educational system. The same view is expressed by Crampton and Thompson (2002) who asserts that the concern over undesirable condition of some schools' physical facilities could be attributed to by school managers as a direct result of limited financial resources that are earmarked for infrastructure improvement.

The quality and safety of school's physical infrastructure is an important factor in the decision making of individual teacher and general performance of the school organs. Buckley & Shang (2004) conducted a research on the effects of school facility in United States of America and concluded that the quality of school facilities is an important predictor of the retention decisions made by teachers. The study indicated lack of resources and safety in a school as factors that contribute to teacher job dissatisfaction, which may lead to teacher burn out and turnover, they pointed out that Myriad factors clearly affect teacher retention, but most teaching takes place in a

specific physical environment. It was therefore prudent to assess implementation of MOE safety guidelines in schools given that unsafe physical infrastructure have a serious impact on the work environment because facility quality is an important predictor of the decision of teachers to leave their current station. This is significant because a key factor in raising students' achievement is the recruitment and retention of teachers (Trump, 2008)

A study carried out by Omolo & Simatwa (2010) in Kisumu East indicated that implementation of government policies in schools was very difficult due to inadequate financial resources, this concurs with (Mbamba, 1992) who asserts that many safety policies and programmes are inadequately addressed due to lack of administrative organizations and financial means to enable their implementation.

According to the study, headteachers were required to purchase safety devices like fire extinguishers, first aid kits among others. They were also required to retain a trained nurse in the school and to equip the school community with necessary skills to handle emergency cases should they emerge. The study established that most schools lacked adequate financial capacity to facilitate effective implementation of safety guidelines in schools; given that safety programme implementation involves extensive modification of existing buildings, purchase of safety equipments and fittings and capacity development at all levels. Without adequate funds, all the safety policies may not be implemented effectively.

Through one of the research question, the current study sought answers on the factors affecting implementation of MOE safety guidelines on physical infrastructure in schools since according to Nthenya (2011) school safety is not only a "money issue" but also a leadership issue. Administrators must prevent potential challenges to

their safe school environments and their reputations, recognise safety gaps, plan and budget for security, and exercise caution in selecting consultants to strengthen their safety leadership.

Other than financial aspect in the implementation of government policies in schools Mari (2010) who conducted a study on the role of discipline in combating violence in schools in the East London Region of the Eastern Cape Province in four Primary and five secondary schools and used questionnaires and interviews to collect data from 330 learners and nine principals established that; schools as formal organizations need accurate, timely, sufficient and relevant information which are kept in the form of records and they provide information on the past and anticipated future centuries of the school. The traditional method of gathering, processing, preserving and presentation/ dissemination of large volumes of information in print media have failed to facilitate implementation of government policies in schools because of its attendant problems ranging from limited capacity to total loss of important information.

Mari (2010) recommended that since a school is an open system that is in constant interaction with the external environment and the world is undergoing tremendous changes as a result of advances in science and technology, it should adopt to new technology. This concurs with the Commonwealth Secretariat (1991) which stipulates that the phase of information technology is used to encompass a range of new technologies and their application, including all aspects of the use of computers, microelectronics devices, and satellite and communication technology.

Greeff, (2002) states that information and communication technology is a collective term covering all those technologies, both hardware and software, dedicated

to the capture, storage, processing, transmission and presentation of information. According to Hawkrige, Jaworski and McMahon (1990) computers are at the heart of Information Communication Technology (ICT) revolution because they are fast information processing machines, configured to receive input in the form of information, systematically process the input and provide organized information that serves the needs of the user. It has the advantage of improving administrative efficiency and overall quality of the teaching and learning process.

Danson and Wyngaard (2003) defined information as data that have been put into a meaningful context and communicated to recipient who uses it to make decisions. According to them, information involves the communication and reception of intelligence or knowledge. It appraises and notifies surprises and stimulates, reduces uncertainty, reveals additional alternatives or helps eliminate irrelevant or poor ones, and influences individuals and stimulates them to action. They listed relevance, timeliness, accuracy, cost effectiveness, reliability, usability, exhaustiveness and level of aggression as characteristics of good information which all learning institutions should adapt to in order to effectively and efficiently implement government policies.

This is further elaborated by Rugut (2003) who conducted a research on Teachers, Inspectors and Education Officers' perceptions of the expected roles of peer supervisors in Kenyan Primary schools in Nandi District. The research established that inadequate communication and coordination of stakeholders on safety issues in schools hampered effective implementation of safety policies. It further revealed that, lack of regular communication to sensitize various stakeholders on their roles also affected negatively the smooth implantation of safety policies in Schools. According to the study, QASOs were inefficient in their job and did not disseminate new policies

of the MOE. This explained why some headteachers felt uncoordinated and without guidance and support which is necessary for the successful implementation of safety policies in schools. This finding contrasted those ones in the study carried out by Omolo & Simatwa (2010) which indicated that QASOs played their advisory and supervisory roles effectively in the implementation of safety guidelines.

The study by Moulidi (2008) established that there was a link between MOE, schools and all the stakeholders and without their active participation and adequate communication; implementation of safety policies would be haphazard and uncoordinated. It was therefore important for the current study to assess implementation of MOE safety guidelines in schools to ascertain whether effective communication was affecting implementation of safety guidelines in schools. According to Squelch (2001) school safety requires planning and vigilance and has to be everyone's responsibility, this possible if the administrator, who is a key actor as they are bestowed with much obligation pertaining to comprehensive school safety, coordinated all stakeholders through effective communication.

In their study, Omolo and Simatwa (2010) indicated that regular evaluation for enhancing implementation of safety policies through regular checks and internal inspections of school buildings and students, the safety shortfall can be identified and attended to. They further stated that, conducting regular fire and emergency drills would prepare students for what they need to know in case of a fire or other school emergencies. The study stressed the fact that QASOs should device realistic, achievable and acceptable strategies to enhance safety guidelines implementation in schools. They suggested that organizing workshops and attending trainings helps in building capacity that enables stakeholders to cope with the new and expanded

demands of their jobs. This study recommended further study in the area of school safety. It was in this line that the current study was conducted.

According to Chumba (2006), school's physical infrastructure should be able to provide an educational programme for a specified number of students. Local conditions for the growth, along with the availability of census data should guide on estimating future enrolment. Over enrolment due to increased demand on secondary education hampers effective implementation of safety guidelines on physical infrastructure which was the major concern of the current study.

Crowded school facilities can create stressful situations to the users, according to Musvosvi (1998), people tend to be more relaxed and enthusiastic in an orderly environment where there is proper ventilation, lawn for relaxation, and flowers and trees to make the place look natural. People who are overcrowded tend to be irritated more easily than those who have ample space to themselves. This concurs with a study carried out by Lyons (2002) who indicates students in overcrowded schools are exposed to more risks than students in underutilized schools. It was crucial for the current study to ascertain whether this argument applied to the schools under study.

A study conducted by Muthini (2004) on headteachers perception towards in service programmes in public secondary schools in Nairobi province indicated that there was a need to ensure that all school headteachers play their role of policies implementation effectively by providing them with knowledge, skills and attributes to enable them run schools effectively and efficiently. This way, they can be able to provide safe and secure learning environment for learners, teachers and support staff. Muthini (2004) further states that safe school environment can be achieved if headteachers are specifically prepared for school leadership before appointment and

then developed continuously to enhance their performance as school leaders after appointment. Safety standards Manual for Schools in Kenya (2008) whose guidelines implementation was being assessed in the current study indicates that knowledge of school safety laws and regulations provide administrators with the authority to know what is allowed, what is forbidden, as well as what actions are considered to be an obligation of the school.

#### **2.4 Involvement of the Stakeholders in the Implementation of MOE Safety Guidelines in Public Secondary Schools in Nairobi West Region, Kenya**

The responsibility of implementing government policies requires collective efforts. Management processes which involve planning, organising, decision making, leading, coordinating and controlling are applied in the implementation process. Broadened educational goals and objectives as a result of changes in socio-economic development have necessitated the involvement of several minds from a wide range of stakeholders in management of school facilities and implementation of government policies (Okumbe, 1999)

The school governing bodies, principals and educators are obliged to ensure learners safety while in learning institutions. This is premised on the educators' authority and duty of care towards the learner (Prinsloo, 2005). The role of both school governing bodies and of educators illustrates the importance of collaborative efforts regarding ensuring of a safe school environment. Bucher and Manning (2003), puts emphasis on the fact that for safety measures at school to be effectively implemented; all stakeholders need to be involved so as to create ownership and pride. This approach has been adapted in various countries as explained hereof



In the United States of America, School wide policies and practices are effected by all stakeholders in education to systematically address needs of students, school personnel, the community and the physical plant of the school. The United States Department of Education (U.S.D.E) requires safety policies on physical infrastructure in schools to be strictly enforced in view of the threats posed by terrorism, drug related violence, proliferation of firearms and natural disasters like typhoons floods and hurricanes. Most American schools have Zero tolerance policies on activities that are likely to compromise safety.

A School Survey on Crime and Safety (S.S.O.C.S) report states that in the 1996/1997 school year, many schools implemented a number of approaches to enhance safety and security, they included; visitors signing in before entering into the school plant, closed school policy prohibiting students from leaving. Since Kenyan Government has made an effort to outline safety guidelines to be implemented in schools, it becomes important to assess how these guidelines are being implemented in these schools.

In Australia, both commonwealth and state initiatives have addressed school safety issues. National crime prevention, in cooperation with other commonwealth and state partners is working to develop a consistent approach to school safety across all states and is investing in long term projects that aim to strengthen the capacity of schools, their staff and communities. A comprehensive review of school based prevention project and policies have been undertaken, innovative and restorative approaches that deal with safety in schools have been piloted in Queensland and the Australian Capital Territory (Shaw, 2002). These approaches could be applied in the sector of education based on the recommendations made in the current study.

In South Africa, levels of school violence are extremely high. Shaw (2002), in a paper on International experiences and actions in promoting school safety states that, there are regular reports of serious violence, gang activities, rape and sexual assaults on girls in schools. Current approaches on enhancing school safety include exemplary programmes such as “Tiisa Thuto”, “Crisp” and “Cass”. Non-governmental organizations such as the Independent Project Trust (I.P.T) and Business against Crime also play a role. “Tiisa Thuto” involves developing partnership between schools, parents, local business and community organizations in implementing model programmes that address the needs of individual schools. The “Crisp” project organizes school safety teams to link parents, schools, local organizations and police. In 1990s, I.P.T. developed a policy which provided conflict resolution training to students, teachers and school governing bodies.

However, continued safety problems led to the realizations that a more fundamental approach was required. Thus, the “Cass” programme was consequently initiated. This is a comprehensive model involving local community partners, national government development guidelines and support materials for school manager, educators, and safety committees. As the current study gathered information on how to enhance implementation of MOE safety guidelines in the schools under study, application of these models, which have been applied successfully in South Africa to address safety issues, could be used in Kenya for the same purpose.

In a research paper addressing school safety in Uganda, Lulua (2008) states that, development partners like the national and district governments, communities, parents and private sector partners have tried to respond to the infrastructural aspect of educational quality, but safety of the learning environment has not been adequately addressed. A quality school is defined as a school that is safe, healthy and with a

friendly environment without violence and hostility, drug free and well equipped facilities. Uganda has implemented the Safe School Contract (S.S.C) as one of the identified interventions which strengthen the role of teachers, pupils, parents and their involvement in children's education. The Ugandan MOE and Sports together with USAID introduced more than 200 schools to S.S.C by the year 2008 so as to enhance safety in school. Through the experience in the 200 supported schools, S.S.C offers a feasible mechanism for promoting safety in schools through strengthening school-community partnership and child participation. One of the concerns of the current study was to address stakeholders' involvement in the implementation of MOE safety guidelines in schools since according to Day & Golench (1995) maintaining safe schools is a shared responsibility among administrators, teachers, support staff, students and parents.

In Paris, policemen are stationed in front of public schools to provide security, maintain the traffic flow and check suspicious activities. Soomeren (2002) states that school safety related work in Netherlands has focused on the safety of school premises, capacity building, bullying and improved incidence response. The Amsterdam school safety project is a five year project involving 40 Secondary schools. It uses school safety plans, physical improvements to the school, and curriculum & social support to promote integrative and preventive approach to school safety in participating schools. The current study identified various ways of implementing safety guidelines in schools.

Actions or procedures promoting school safety include establishing school safety committee (SSC), designing and producing school safety policies (SSP), implementing the school safety policies and monitoring the implementation thereof (Calabrese, 2001). This relates to making sure that the right people know what the

school safety plan (SSP) entails and what role each of them should play in carrying it out. Collaboration with agencies from outside school includes collaborative relationships among school managers, educators, learners, parents, law enforcement officers and various social-service personnel (Bucher and Manning, 2003). Stephens (1995) goes further and advocates development of a district-wide school plan, complemented by one for each school. This draws benefits from parents, students, educators, law enforcers, religious bodies, corporate, and other community leaders. In this way, collaboration with agencies from outside schools could enable schools' safety to be addressed on a holistic basis, covering a variety of safety- threatening conditions besetting schools precisely because these incidents cannot be adequately addressed by school stakeholders alone. Therefore it was necessary to conduct a study on the implementation of safety guidelines to address involvement of stakeholders in this initiative.

Thompkins (2000) and Burnes (2004) advocate for participatory planning which involves people who would be affected by the planned programmes. They assert that, willing participants contribute significantly to the success of any programme. MOEST, (2003) also emphasizes the importance of SWAP by involving learners, teachers, BOG and PTA members among other stakeholders in the formulation of school guidelines and planning school activities basing on MOE policy guidelines on implementation of educational programmes. With the government commitment to enhance safety in schools, there is a need to involve stakeholders in the implementation of policies in schools (Waudu, 2009)

Burnes (2004) and Sallis (2002) indicates that rational attitude towards any educational programme is conveyed in the chances availed for the members of the school community to participate in the implementation process. To promote safety of

the school physical infrastructure, all stakeholders should participate in the entire process. According to assessment reports in the PDE's office (2010) Nairobi County, there is inadequate supervision of physical facilities and sitting buildings in the compound, the institutions' heads and other stakeholders were urged to ensure that school buildings are planned well to enable users to utilise them effectively and to stick to the guidelines given by the Ministry of Lands and Settlement and MOE safety guidelines on physical infrastructure on site plans for schools when putting up new buildings and continuous maintenance and renovation of the old buildings. This study was to assess whether these conditions were being met in the schools under study.

According to the MOEST hand book on school management (2003), management of school's physical facilities can be done effectively if headteachers involve all the stakeholders and delegate some responsibilities to other staff members. The headteacher should supervise and coordinate implementation of programmes in a school. According to Nair (2003), BOG and PTA members should have in place a development plan of their schools to ensure thoughtful and purposeful future plan as need and availability of land demand. It is pointed out that, school's buildings should be planned so as to promote flexibility. Syvertsen, (2002) asserts that all stakeholders should be involved in planning schools that more adequately address the needs of the whole learning community.

In their effort to illustrate the pivotal role played by education stakeholders in the implementation of safety policies in schools, UECD (2006) stated that, safe and secure schools are fundamental to students' success and achievements. Threats to the safety and security of schools can arise from natural hazards such as earthquake, floods and storms or from human actions such vandalism, arson and violent crimes. While catastrophic events and human tragedies cannot be eliminated entirely, there is

a role for facility designers, institutional managers, emergency response teams, and post- crisis intervention in mitigating their negative impact.

Consequently, providing a safe and orderly school environment should remain an ever present priority of the school administration. The school administration has a responsibility to ensure that the school's physical infrastructure is conducive for learning (Day, Hadfield and Bereford, 2000). This responsibility is further reinforced by Trump (2008) who points out that today school safety is not only a "money" issue but also a "leadership issue. Therefore administrators must prevent potential challenges to their safe school environments and their reputations, recognize safety gaps, plan and budget for security and exercise caution in selecting consultants to strengthen their safety leadership. Nthenya, (2010) states that although school board and administrators set the climate of safety within schools, teachers must also be directly involved trained and supported in all stages of developing and implementing programmes that accomplish safer physical infrastructure in schools.

It follows that safety of school's physical infrastructure requires planning and constant vigilance and has to be everyone's responsibility. Everybody from the head of school to the maintenance staff should be involved in school safety (Magdla, 2006). School safety should be addressed through a comprehensive approach that focuses on prevention, intervention and response planning (Maoulidi, 2008). Safe schools are a shared responsibility with administrators, teachers, support staff, students and parents (Day & Golench)

At Kenya's independence, communities and parents were called upon and encouraged to put up buildings through 'Harambee' spirit. Thus it is imperative that the local people especially parents are involved in the layout of the physical facilities

in the school (MOE, 2001). It is common occurrence in Kenyan schools to hire their facilities to the community; therefore, such facilities should be sited near the gate to avoid attracting attention of learners by movement of strangers in the compound and to minimize risks that go with it. A clear and competent access control and surveillance is required in such circumstances, this can be done effectively when every stakeholder is called upon to participate actively (Brady, 2003).

School- based activities relate to maintenance and surveillance of physical infrastructure and to safety procedures. Maintenance, which is a collaborative function centres on actions aimed at creating safe, secure and orderly schools. It involves repairs, replacement and general upkeep of these facilities (Hancock, 2002). This writer makes the point that maintenance is concerned with ensuring safe conditions for facility users, be they learners, educators, staff, parents or guests. Reid (2000) goes further to say that surveillance entails monitoring the whole school environment, removing obstacles from the school grounds such as solid walls, shrubs and trees, ensuring clear visibility of main entrance, locating parking areas so that they are visible, keeping unused building and doors securely locked, demarcating “out of bounds” areas, eliminating blind spots provided by doorways, fences, buildings and landscaping and access control. All these activities can be handled effectively when teachers, learners, support staff and school administration are involved (Agron, 2003)

A study conducted by Koech (2004) on indiscipline and unrest amongst Kenyan secondary schools students recommended that teachers be engaged in continuous planning of the future programmes in the school. They should give their views in relation to the subject they teach. This will help them to recommend physical infrastructure that will be equipped with facilities they will be using in teaching

relevant content. This concurs with Okumbe (1999) who asserts that teachers should help in supervising some areas of school programmes as assigned to them by the school administration. According to Derouche (1987), evaluating and planning for the safety and efficient use of the physical facilities in the school requires the cooperation of teachers and non-teaching staff. These two are in a central position to inform the headteacher about the use of space in the building regarding the educational programmes. The current study on the assessment of MOE safety guidelines implementation sought views on the involvement of the stakeholders in the implementation process.

Involvement of students in decision making in the school helps them to develop leadership skills and the ability to plan. Students feel that the school is part of them and therefore do everything possible to boost and maintain the reputation of the school. Involvement of students alongside other stakeholders in the implementation of safety guidelines creates and promotes understanding with the headteachers which helps in safeguarding and protection of the school's physical infrastructure (Cotton, 2006).

According to Balyage, (1990), stakeholders needs to be involved in the implementation of school programmes since the school is not a one man's business; it needs a lot of input from professionals and other people with knowledge that contribute to a better management of the building and planning process. The physical infrastructure in the school must be safe and serve the purpose that they were meant for and should meet the needs of the people concerned. Therefore the current study assessed the implementation of MOE safety guidelines on physical infrastructure in Nairobi West region.



## **2.5 Attitude of the Headteachers, Teachers and Students towards implementation of MOE Safety guidelines in Public Secondary Schools in Nairobi West Region**

Education's managers and teachers attitudes towards educational issues have an important impact on the way they interpret government policies and implement them, this is due to the fact that accepted ways of thinking and behaving set the context into which policies are effected (Trowler, 2003). Bohner and Wanke (2004) asserts that although the relationship between attitudes and behaviour is complex and not always straightforward, it is most certainly the case that a stakeholder's attitude towards policy implementation may influence his or her behaviour towards implementation of educational policies in the learning institutions.

Bohner and Wanke (2004) further indicates that attitudes do not only influence behaviour , they also determine the ways education stakeholders process information related to the attitude object such as safety policy implementation. Therefore, the construct of attitudes seem to be an important mediating link between the social information perceived in the environment and the response to it (Trowler, 2003).

Hall (2005) indicates that school administrators and teachers personally held beliefs and values help to guide their practices while performing their duties. He further states that the decision on whether to implement policies or not made by the stakeholders may be largely influenced by their beliefs. This concurs with Heller and Greenleaf (2007) who pointed out that despite the types and amounts of knowledge that administrators and teachers may have on the implementation of safety policies in schools, it is their beliefs that are more likely to dictate their actions in the implementation process. Therefore, regardless of their exposure and training, administrators and teachers beliefs inform their professional attitude and conduct regarding policy implementation in schools.

Gliem (1993) conducted a study on administrators' attitudes, policies and procedures regarding safety in vocational education laboratories. The population of this descriptive survey included 260 principals of comprehensive high schools with agricultural education programmes in Ohio. The study utilized questionnaires to obtain data from the participants. From this study, a positive attitude towards safety skills development was prerequisite to the safety of an individual and learning institution.

The study (Gliem, 1993) established that the school governing bodies, principals, teachers, support staff and students are responsible for promoting desirable attitudes towards implementation of safety regulations in schools. Similarly, Brady (2003) recommends that teachers should work towards demonstrating a positive attitude, a sound knowledge of safety and maintain school's physical facilities in safe working condition. Cotton (2006) emphasizes that the primary responsibility for providing safety instruction and safe working environment belongs to the teacher who must be supported by the school administration.

In further support of the importance of positive attitude in the management of learning institutions, Fenker (2004) pointed out that implementation of safety policies in schools will happen when administrators supports the process and will cease when the interests and attention has been eliminated or become lax. Additionally, Mari (2010) indicates that the single most effective force behind successful implementation of safety policies in schools is the support of an administrator who accepts its importance and by their own attitude encourages throughout safety consciousness throughout their administrative unit.

The effects of educational managers' attitudes on their performance was elaborated on by Nthenya (2011) who conducted a study on school safety and school administration participation in public secondary schools in Kenya. The study adopted a descriptive survey research design. Purposive sampling was used to select respondents comprising of school administrators; 35 headteachers, 28 deputy headteachers and 12 heads of department drawn from 75 public secondary schools and 3 Quality Assurance and Standards officers (QASOs) as key informants. Data collection instruments included headteachers and QASOs questionnaires, interview and observation schedules. Data collected was analyzed by use of descriptive statistics and presented in tables.

Nthenya (2011) established that participation of the stakeholders in the implementation of safety guidelines was low and the overall performance regarding safety issues in schools was way below the requirements as stated in the MOE safety standards manual for schools in Kenya, this was largely attributed to negative attitude expressed by some school managers and to the general feeling that other programmes were more crucial than those associated with safety. This view concurs with Jagero (2011) who established in his study that all respondents ranked school safety last with curriculum, co-curricular and guidance and counselling respectively being given more priority. The study by (Nthenya, 2011) recommended that MOE should enforce school safety programmes by ensuring all schools institute school safety policies and carry out induction of all school administrators on attitude change for effective implementation of MOE safety guidelines in the learning institutions, hence the importance of the current study.

Headteachers play a significant role in the implementation of safety policies in schools. As the managers in the learning institutions, responsibility of the actual

implementation rest on their shoulders. Therefore, they have to do everything possible to ensure a safe school environment (Squelch, 2001). According to Burnes (2004) and Okumbe (2001), in any organization including a school, it is important to have managers who are able to implement policies and guidelines and effectively perform supervisory duties. Therefore, headteachers should play pivotal role in the implementation of safety guidelines in schools; this was to be ascertained in the current study

The Ministry of Education guidelines indicated that since headteachers are crucial in the implementation of each policy in a school, housing them in the school compound could enhance safety in the school plant to a great extent (MOE, 2008). A study conducted by Omolo and Simatwa (2010) indicated that most headteacher under study were not residing in the houses provided in the school compound defeating the purpose for the provision of the houses. This, according to the findings of the study was due to the negative attitude attributed to the idea by the headteachers. The same study further revealed that, from the year 2004- 2006, there was a downward trend in conducting fire drills among members of the school community. This reflected a sudden change in the perception of headteachers towards fire safety and preparedness in the learning institutions.

The significance of fire drills in a school set up should never be down played for they prepare students for what they need to know in case of fire outbreak. Fire drills also allow students and teachers to plan their escape in advance and to address learners safety issues (Comolotti, 1999). The current study was important in that it focused on the assessment of safety guidelines implementation in schools where headteachers are key people on the ground to assist in the implementation of government's policies.

School safety requires that premises and students be inspected at least once a year, however, according to reports compiled by PDE's office (MOE, 2010) Nairobi province indicated that, majority of the public secondary schools in Nairobi West region had not been inspected as required and the headteachers had not invited QASOs to do so. This clearly indicated lack of interest in such assessments, failure to inspect some schools may impact negatively on safety and security matters in such schools. It is important to note that these assessments are meant to enhance the quality of teaching and learning by guiding on the appropriateness and safety of school's physical infrastructure and environmental soundness of the school plant (Buckley and Shang, 2004). In the one of the research question, the current study sought information on the factors affecting implementation of MOE safety guidelines on physical infrastructure.

Headteachers, like any other employees require some form of appreciation for work well done. Employees' recognition ensures a positive productive and innovative organizational climate and it also encourages attitudes and actions that make the organization successful. Headteachers who excel in the implementation of safety guidelines should be recognised through promotion, motivation, award and provision of funds for the purchase of safety equipments (Tornington, Hall and Taylor 2005). According to Wortman (1999), awards, promotion and recognition act as motivators which give impetus to the desired behaviour by arousing, sustaining and directing it towards the attainment of the desired goals. Since attitude can be affected by motivation (Okumbe, 1999), the researcher sought information on the attitude of headteachers, teachers and students towards implementation of safety guidelines in schools.

Mwangi (2008) conducted a study on the status of disaster preparedness in public secondary schools in Kiharu division, Murang'a District. The study employed a survey design and used questionnaires only as data collection instrument. The sample used in the study was 15 Secondary schools and 15 headteachers. The study indicated that negative attitude by the expressed by the respondents' affected effective implementation of safety guidelines in schools; this was due to the fact that, headteachers had a major role to play in the implementation of safety policies. It was further reported that with the schools facing increased pressure to improve quality, the roles and responsibilities of headteachers were found to have expanded to include management of various aspect of school safety.

The study, Mwangi (2008) concluded that effective implementation of government policies largely depended on the attitude of the headteachers and they would not succeed unless the headteacher considered them significant enough to find value in them. If headteachers were supportive of the implementation programmes, then these programmes were likely to succeed. It is in view of this that the current study, on the assessment of MOE safety guidelines on physical infrastructure implementation in schools sought answers in one of the research questions on the attitude of the participants since it could have effect on the implementation of safety guidelines in public secondary schools in Nairobi West Region, Nairobi County.

According to Chumba (2006), planning of school physical facilities is very vital for the simple reason that the quality of school buildings affects students' learning and achievement. Therefore, the head of a secondary school should be familiar with the requirements of the public Health Act and MOE safety standards guidelines which specify the standards expected of school buildings in terms of minimum health standards and the rules and regulations governing their provision.

This can only be possible if the headteachers' attitude towards government's safety guidelines is a positive one, hence the importance of the current study.

The school head teacher has the responsibility to supervise, manage, evaluate and improve with assistance from other personnel the school's physical infrastructure and its facilities to ascertain safety needs. It is the duty of a school head teacher to appoint safety committee members, to repair and maintain school facilities to make it safer and to disseminate reading materials on safety (MOE, 2008). According to Davis (1997), the roles of the school head teacher include maintaining records of up to date information about enrolment, housing and other developments, implementing the programmes and policies. They also include supervision of construction of new buildings and the existing ones to ensure they adhere to safety guidelines and to identify special features that can endanger safety of the users.

## **2.6 Identification of Research Gap**

Taken together, the reviewed studies are very useful for educational improvements. They have reported various elements that have negatively affected secondary schools administration in various places. However, most of them examined various segments of school administration and not effective implementation of MOE safety guidelines on physical infrastructure in Public Secondary Schools in Nairobi West Region, Nairobi County. All examined studies, though on management and administrative processes, none sought to address the following issues; safety status of physical infrastructure in Public Secondary Schools, attitude of the headteachers towards safety guidelines implementation in schools, factors affecting safety guidelines implementation in schools, involvement of stakeholders in the

implementation of safety guidelines in schools and ways of enhancing effective implementation of safety guidelines in school.

Justifying the importance of safety in learning institutions, several studies tend to uphold the primacy of the safe schools, they include; Chumba (2006), Omolo & Simatwa (2010) and Mwangi (2008) among others. Thus from the point of view of design, the sample involved, data collection instruments, data analysis procedures and the inconsistency of findings, time and geographical location of the reviewed studies, the researcher has found it necessary to conduct a study on effectiveness of the implementation of MOE safety guidelines on physical infrastructure in public Secondary Schools in Nairobi West Region, Nairobi County, Kenya.



## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

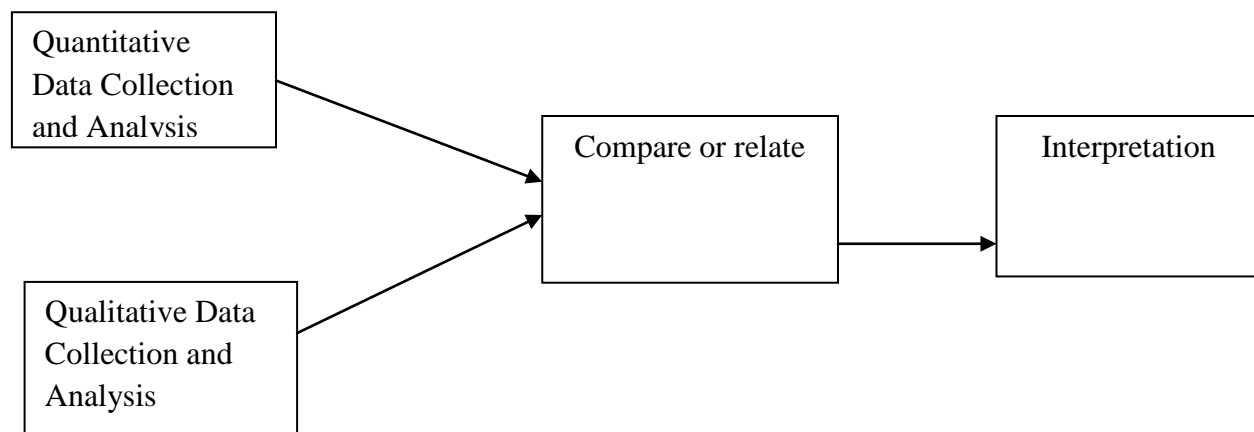
This chapter provides information on the research design and methodology of the study. The main purpose of the study was to assess the implementation of MOE safety guidelines on physical infrastructure in public secondary schools in Nairobi West region, Kenya. This section describes; research design, target population, sampling techniques, research instruments, data collection procedure, ethical consideration, data analysis and interpretation.

#### **3.2 Research Design**

The study used a mixed methods approach. According to Teddie and Tashakkori (2009) mixed method approach is a procedure for collecting, analyzing, interpreting and reporting both quantitative and qualitative data in the research process within a single study, to understand a research problem more completely. Brayman (2001) states that when used in combination, quantitative and qualitative methods complement each other and allow for more complete analysis. Creswell (2003) postulates that quantitative and qualitative methods are compatible thus, both numerical and text data, collected sequentially or concurrently can help better understand the research problem.

The study used the convergent parallel mixed methods design. This design occurs when the researcher collects and analyzes both quantitative and qualitative data during the same phase of the research process and then merges the two sets of results into an overall interpretation (Morse, 2009). Creswell & Clark (2011) asserts

that the convergent parallel mixed methods design occurs when a researcher uses concurrent timing to implement the quantitative and qualitative approaches during the same phase of the research process, prioritizes the methods equally, and keeps the strands independent during analysis and then mixes the results during the overall interpretation (Figure 3.1). Use of convergent parallel design assisted the researcher as stated by Patton (2002) to obtain different but complementary data, bring together differing strengths and non overlapping weaknesses of quantitative and qualitative methods, triangulate the methods by directly comparing and contrasting statistical results with qualitative findings for corroboration and validation purposes.



**Figure 3.1 Convergent parallel mixed methods design**

*Source: Adopted from Creswell & Clark (2011)*

### 3.3. The Study Area

The study was undertaken in Nairobi West region which comprises of three districts; Langata, Dagoretti and Westlands. The residents of this area are of different social, economic, religious and political backgrounds whose main economic activities include small scale traders, farmers and large scale traders. The area was chosen for

the study as a result of educational assessment reports in the Provincial Education Office Nairobi (MOE, 2010) which revealed that some public secondary schools had experienced problems in their physical infrastructure due to lack or inadequate implementation of the Ministry of Education guidelines on physical infrastructure.

### **3.4 Target Population**

The study targeted all 25 public secondary schools, 25 headteachers, 816 teachers, 16,065 students, all 3 Quality Assurance & Standards Officers and all 3 District Education Officers in Nairobi West Region. Headteachers were targeted in the study since they play an integral part in the implementation of government policies in schools. According to Mapfumo (1999), the school headteacher is instrumental in the implementation of safety policies in schools since it is their responsibility to prepare, monitor, evaluate and make necessary interventions during the implementation process. Kapuya (1993) further states that success of implementation of government policies in schools is the product of headteachers' influence because they work closely together with other stakeholders in the implementation issues.

Teachers were included in the study since they are important parts of the entire school system and their adequate involvement in the implementation of educational programmes in their schools leads to greater achievement of the set goals. Chivore (1995) states that implementation of government policies in schools depends on teachers' commitment and acceptance of the innovations.

Students were included in the study given the pivotal role they play in school management. This role is elaborated by Gwengo (2003) who stated that students are important players during the implementation of safety policies in schools although

they are usually ignored during decision making and vision building. Chivore (1995) further indicated that the degree of programmes' implementation success is determined by students' behaviour change.

DEOs were targeted in the study because they oversee implementation of educational programmes in the schools under their jurisdiction and have substantial knowledge of the current situation regarding safety of physical infrastructure in schools found in their districts. According to Fullan (2002), implementation of government policies depends on the support given by the DEOs which include; orientation, capacity building, supervision of policies' implementation and supply of adequate resources

DQASOs were targeted in the study because they continuously assess the implementation process of government policies in schools to establish the progress of the implementation. According to Hord (1995) ongoing assessments motivate implementers to commit themselves to the innovation and assessment results are used by education managers to help schools accordingly.

### **3.5 Sample and Sampling Procedure**

As shown in Table 3.2, sample selected included; 15 headteachers from the selected 15 out of 25 public secondary schools, 43 out of 816 teachers, 241 out of 16,065 students, all ( 3) District Quality and Standards Officers (DQASOs) and all (3) District Education Officers (DEOs). The sample was drawn from the sampling frame which according to Nesbary (2000) is the actual list of individuals included in the population. Nesbary (2000) explain that unbiased sample is the one in which every member of a population has an equal opportunity of being selected in the sample.

Therefore, random sampling was used in this study to help ensure unbiased sample population.

In order to obtain a stratified random sample, the twenty five public secondary schools were divided into strata according to type (Boys, Girls and Mixed), administrative districts (Langata, Dagoretti and Westlands) and category (Day or boarding). According to Gorard (2003), stratified samples enable the researcher to select cases in proportion to some characteristics in the population to enhance the quality of the sample. Typically, for stratified random sampling, the same percentage of participants, not the same number of participants, are drawn from each stratum (Patten, 2004).

### **3.5.1 Schools and Headteachers**

A sample of 15 (60%) of the 25 public schools was selected using stratified random sampling technique, to enhance representativeness of the study. Gay (1996) postulates that, ten to twenty percent of the population is representative enough. However, the choice of a higher sample in the study assisted in obtaining a more reliable result that was representative of the target population. The 15 public secondary schools that were proportionately selected comprised of 1 boys' day school, 3 boys' boarding, 1 girls' day, 3 girls' boarding, 6 mixed day and 1 mixed boarding. Of the 15 selected public secondary schools, 3, 6 and 6 were from Langata Dagoretti and Westlands respectively (See Table 3.2). Fifteen (15) headteachers from the selected schools were automatically included in the sample.

### **3.5.2 Teachers**

Forty three (43) out of 816 teachers were randomly selected from 15 public secondary schools that had been stratified according to type, category and

administrative districts. According to Schumacher and McMillan (1993), when stratified random sampling is used in selecting schools, participants from the selected schools should also be selected randomly in order to provide a sample that is representative of the target population. Random sampling also prevents researcher's biases in the selection process (Sowell, 2001). Sampled teachers comprised of 18, 19 and 6 teachers from Westlands, Dagoretti and Langata respectively.

Two hundred and forty one (241) out of 16,065 students from form 1, 2 and 3 were included in the sample since they were well versed with educational programmes' implementation in their schools. Students' sample was randomly selected from 15 public secondary schools that had been stratified according to type, category and administrative districts. According to Gorard (2003), stratified samples enable the researcher to select cases in proportion to characteristics in the population to enhance the quality of the sample.

### **3.5.3 DEOs and DQASOs**

The researcher used purposive sampling to include in the sample all the District Education Officers (3) and District Quality Assurance Officers (3) in the Nairobi West region. Purposive sampling allows the researcher to choose a case because it illustrates some features in which the researcher is interested, and in terms of its relevance to the study (Silverman, 2000).

**Table 3.3 Sampling Matrix**

District	Sampling technique	Westlands		Dagoretti		Langata		Total population	Sample size
		total	Sample	Total	Samp	Total	Sample		
			ple		le				
Schools	Stratified random sampling	10	5	10	5	5	3	25	15
Head teachers	purposive	10	5	10	5	5	3	25	15
DEOs	Purposive	1	1	1	1	1	1	3	3
DQASOs	Purposive	1	1	1	1	1	1	3	3
Teachers	Stratified random sampling	299	18	210	19	107	6	816	43
Students	Stratified random sampling	6537	98	7081	106	2447	37	16065	241

### 3.6 Research Instruments

In order to carry out this study, the following instruments were developed, pilot-tested, revised and then administered to collect data from the respondents.

Interview guide were used to obtain information from District Education and District Quality Assurance and Standards Officer. Questionnaires were administered to the headteachers, teachers and students. Observation schedule was also used to compliment other instruments.

#### 3.6.1 Questionnaires

Questionnaires were used in this study since they gather data over a large and diverse sample. The use of questionnaires upholds confidentiality because the

respondents are not required to indicate their names on it. According to White (2002), a questionnaire is an instrument with open or closed ended questions or statements to which a respondent respond. Questionnaires were used widely in data collection as they were relatively economical, ensured confidentiality and contained questions written for specific purpose. Questionnaires also minimized time used by participants in filling them. Three types of questionnaires described below were used in this study.

### **3.6.1.1 Questionnaire for Headteachers, Teachers and Students**

Questionnaires were administered to headteachers, teachers and students. They had a brief instruction on how to respond to the questions. They consisted of both closed and open ended questions. The questions were compiled with the help of the literature review and were categorized into the following themes; section A demographic data of the respondents, section B. information on the safety status of physical infrastructure in the schools under study, C. information on the factors that affect implementation of safety guidelines on physical infrastructure in the schools under study. Section D. information on the extent of involvement of the stakeholders in the implementation of safety guidelines on physical infrastructure in their schools E gathered information on the respondents', attitude towards MOE safety guidelines on physical infrastructure in schools and F sought ways of enhancing implementation of MOE safety guidelines in public secondary schools in Nairobi West region.

The researcher used both open and close ended questions in the questionnaires to collect data, according to Cohen (2000), one should often consider open- ended questions to enable the participants to respond freely on their own terms. The open- ended questions gave participants a chance to explain what they truly felt and avoided limitations of pre-set categories of response.



The items in the questionnaires were developed with consideration of Bebbie's (1995) guidelines. Some of these guidelines provided that; (a) items should be made clear to allow participants interpret them the same way (b) questions should be limited to a single idea or concept to avoid double barrel questions (c) participants must be competent to answer questions and provide reliable information (d) questions should be relevant (e) simple items are the best and to avoid long and complicated items (f) avoid negative items or terms (g) avoid biased items to discourage giving certain responses more than others(See Appendix i, ii &iii)

### **3.6.2 Observation Guide**

The observation guide was used by the researcher to obtain data during school visits. This was used to assess the implementation of MOE safety guidelines on physical infrastructure in public secondary schools in Nairobi West region. Observation guide consisted a list of items to be observed which helped the researcher to collect data easily, it also assisted in obtaining valuable information on the following; availability of the perimeter fence, secure school gates, safe play grounds, availability of clean water, fire extinguishers, availability and appropriateness of physical infrastructure and signage in the schools under study (See Appendix vi)

### **3.6.3 Interview Guide for DEOs and DQASOs**

The researcher developed an interview guide (See Appendix v). This was used to collect in-depth information from the DEOs and DQASOs on their perceptions, experiences and perspectives on the implementation of MOE safety guidelines on physical infrastructure in the schools under study. Interview guide were largely used to complement the questionnaires. The researcher used interview guide because according to Patton (2002), it is flexible and it helps to make interviewing across

different people more systematic and comprehensive. An interview guide was thus prepared in order to make sure that basically the same information was obtained from a number of people covering the same material (Hughes, 2002). It was constructed on the bases of the literature reviewed and the research questions. According to Fontana and Frey (2000), the use of interviews enables the researcher access through words to an individual's constructed reality and interpretation of his/her own experiences. The same view is expressed by Minichiello, Aroni, Timewell and Alexander (1995). The interview guide consisted of specific questions that provided answers to the research questions.

### **3.7 Validity and Reliability of the Research Instruments**

#### **3.7.1 Validity**

The term Validity means that the instrument used in data collection should be able to measure what it claims to measure (Nsubuga, 2000). Validity is the extent to which results obtained from the analysis of the data actually represents the phenomena under study (Mugenda & Mugenda, 1999). According to Patton (2002), no researcher developed test instrument is perfectly valid. Davies and Dodd (2002) further states that a researcher needs some kind of assurance that the instrument being used will result in accurate conclusion. Therefore, the researcher addressed three principles identified by Patton (2002) to improve content validity. They include; use of a broad sample of content rather than a narrow one, emphasizing on important material and writing questions to measure the appropriate skill.

To ensure content validity of the research instruments, three members of the Faculty of education at Catholic University of Eastern Africa who are experts in the area of Educational Administration and Planning scrutinized the research instruments.

They also verified face validity which according to Fairchild (2002) is a non statistical assessment of whether or not a test appears to be valid. Their input and suggestive feedback was used in revising the instruments before preparing the final copy. Validity of the data collected was also enhanced by source and instrument triangulation. Three different instruments were used: questionnaires, interview guides and observation schedule. Data was collected from five different sources: head teachers, teachers, students, District Quality Assurance and Standards officers and District Education Officers, this helped in the generation of more reliable data ((Nachmias & Nachmias, 1996).

Before the instruments were used to collect data for the study, a pilot study was conducted in one of the public secondary school in the area under study which was not included in the sample. This was to ensure that the researcher got the intended information from the questionnaires. The pilot study also helped to identify problems the respondents would encounter while filling the questionnaires. The pilot study helped the researcher to refine and reformulate some questions in the questionnaires to correct shortcomings that were identified. This helped the researcher to collect data that were more closely suited to what she was after. The researcher also took note of the time required to fill the questionnaires and adjusted the items appropriately to take the time that was scheduled for them.

As stipulated by Gregory (1992), a pilot study also provides data for making estimates of time and the cost for completing various phases of the research. Generally, the pilot study allowed the researcher to get suggestive feedback on the survey and also helped the researcher to eliminate the biases. According to Patton (2002), the number of respondents for the pilot study should be between 9-10% of the

sample population. In this study, a total of 26 respondents from school R were used for the pilot study since the total sample was 255.

Interview and observation guides were given trial runs to ensure questions were clearly worded and drew appropriate range of responses. The trial runs also assisted the researcher to identify where revisions needed to be done.

### **3.7.2 Reliability**

For an instrument to be reliable, it should consistently yield the same results when repeated measurements of the same subjects are taken under the same conditions (Nsubuga, 2000). Mugenda and Mugenda (1999) assert that reliability is a measure of degree to which a research instrument yields consistent results or data after repeated trials.

The test – retest method was employed to establish the reliability of the questionnaires. The technique involves administering the same instrument twice to the same group of respondents (Gregory, 1992). The questionnaires were administered to the same respondents from the same secondary school that was used in the pilot study within an interval of two weeks after the pilot study. Pearson Product Moment Correlation Coefficient was calculated for each questionnaire.

In social sciences, acceptable reliability coefficient ranges from 0.6 to 1.0 (Nunnally & Bernstein, 1994; Gregory, 1992; Crocker & Algina, 1986; Gall & Borg 1996; Mugenda & Mugenda, 1999). The Reliability Coefficient for the Head Teachers Questionnaire was 0.767. The others were Teachers' Questionnaire at 0.761 and Students' Questionnaire at 0.748. All the above Reliability Coefficients were between 0.6 and 1.0 showing that the three questionnaires were reliable.

### **3.8 Data collection procedures**

After successful proposal defence and subsequent corrections of the suggested issues, the researcher was cleared by Catholic University of Eastern Africa (CUEA) on 12<sup>th</sup> June 2012 to carry out a research on the assessment of the implementation of the Ministry of Education Safety Guidelines on physical infrastructure in public secondary schools in Nairobi West Region. The National council for Science and Technology authorized the researcher on 22<sup>nd</sup> June 2012 to conduct research in public secondary schools in Nairobi West region between 22<sup>nd</sup> June and 20<sup>th</sup> July 2012.

The researcher sought permission from the respective DEOs to interview them and later their DQASOs for 20 minutes each on the implementation of MOE safety guidelines on physical infrastructure in their schools. They accepted the request since there was prior arrangement. According to Nsubuga (2000), it is necessary that a definite appointment for the interview to be made at a time which is convenient to the participant. In conducting the interview, the researcher took into account some guidelines suggested by Leary (2001). They included; creating a friendly atmosphere, adhering to the interview schedule, arranging interview questions in a logical manner, and being carefully not to begin with sensitive questions.

All participants were asked similar questions. However, the order of the questions and the exact wording of the questions were left at the discretion of the interviewer (Bryman, 2001). This enabled the researcher flexibility to respond to issues raised by the participants and to ask probing questions. The time of the interview suited the interviewee, Interviews were conducted face- to- face in the DEOs' and DQASOs offices to allow for privacy and quiet atmosphere. According to McMillan and Schumacher (2006), a qualitative researcher should collect data in face-

to- face situations by interacting with selected persons in their settings. The researcher therefore went in person to each district in Nairobi West region.

According to Greenfield (2002), no matter what style of interviewing is used, and no matter how carefully one words interview questions, it all comes to naught if the interviewer fails to capture the actual words of the person being interviewed . Therefore it is crucial that one determines in advance what style of interviewing will be suitable and also which form of recording will be most suitable for ones research. Therefore, the researcher used a combination of tape recording and note taking to capture data. Patton (2002) puts great emphasis on field notes especially those made immediately after the interview. The researcher audio taped the interviews with the DEOs and DQASOs and transcribed them directly afterwards. The researcher also made direct observation while conducting interview, listening attentively to the respondents' responses, and looking for changes in body language such as laughter or hand movements. This observation took place in a naturalistic way during the interview.

Henning (2004) mentions that while interviews are being conducted the researcher should take notes about how the interview develops structurally. These notes are intended to harness some of the contextual factors that are not verbalised, such as gestures, facial expressions, tone of voice, change of tempo of speech and general body language. Hughes (2002) suggests not using the tape recorder for at least the first five minutes of the interview in order not to make the participant edgy, and to create a relaxed atmosphere. This advice was followed. The researcher sought permission from the interviewees to use a tape recorder during the interviews in order to enhance capturing of the exact explanations or wordings of some important responses from the DEOs, and DQASOs. The interview enabled the researcher an

opportunity to probe for clarification and in-depth information on the implementation of safety guidelines in schools which may not have been provided for by the questionnaires

District Education Officers granted the researcher permission to access the sampled schools in the respective districts. The researcher then explained to the headteachers from the sampled school the purpose for the visit. The headteachers were requested to fill their questionnaires and to allow teachers and students to do the same. Before administering the questionnaires to the respondents, the researcher developed a rapport with them and assured them of confidentiality. She then administered the questionnaire to them for 30 minutes. This exercise took place in three districts as follows; Dagoretti district 3<sup>rd</sup> to 5<sup>th</sup> July 2012, Langata district 10<sup>th</sup> to 12<sup>th</sup> July 2012 and Westlands district 17<sup>th</sup> to 19<sup>th</sup> July 2012.

At the end of the exercise in each district, the researcher collected completed questionnaires and thanked the respondents for their contributions and cooperation. Through questionnaires, interview and observation guide, the researcher gathered information that assisted to answer all the research questions in all the districts during the above mentioned dates.

### **3.9 Data Analysis Procedures**

The analysis of data was based on research questions. Data were analyzed using both qualitative and quantitative procedures. The researcher categorized the instruments into their homogenous groups, coded the quantitative information and summarized them into frequencies and percentages with the help of SPSS windows version 13.0. These were then presented using frequency tables and graphical representations. Information gathered from attitude scale was used to test hypotheses

using one-way ANOVA at 0.05 level of significance. The researcher transcribed all interviews and data obtained from observation guide and interview guides. Key words and phrases that were similar in meaning were categorized by topics. Responses from different groups were compared and trends and patterns in the responses established. The researcher then summarized the quantitative information into frequencies and percentages. Narrative and interpretive reports were written to depict the situation as it was on the ground.

Since the main research instruments for data collection were questionnaires and interview guides, the study used both quantitative and qualitative approaches in data collection, analysis and interpretation. The quantitative approach was used because relationship between variables under study was made. The researcher therefore employed quantitative methods in analysing the data. The qualitative method was regarded effective in attempting to all aspects of phenomena in great detail, in a given situation, in order to explain, and gain insight and understanding of phenomena.

Qualitative data consisted of any information the researcher gathered that was not expressed in numbers (Tesch, 1990). This was mainly data from interviews and observation guides which was presented largely in form of words. Use of both methods assisted the researcher to obtain a more valid result regarding implementation of MOE safety guidelines on physical infrastructure in schools. They also complemented each other and ensured collection of adequate data, according to Saunders, Lewis and Thornhill (2000), employing multiple methods in the same study enables triangulation to take place, and helps to cancel any method's effect that might have risen during data collection.



### **3.10 Ethical Considerations**

In carrying out the study, the researcher considered ethical issues pertaining to the research. According to Saunders, Lewis and Thornhill (2000), ethics refers to the appropriateness of the researcher's behaviour in relation to the rights of the participants of the study or those affected by it. McNamara (1994) identifies five ethical concerns to be considered when conducting survey research. These guidelines deal with; voluntary participation, not harming respondent, anonymity and confidentiality, identifying purpose and sponsor, analysis and reporting.

Cooper and Schindler (1999) further states that ethical issues that affect the research process include the privacy of the participants, voluntary nature of participation and the right to withdraw, maintenance of confidentiality, consent of participants and the behaviour of researcher. According to William (2005), observation of ethics aims at ensuring that no one is harmed or suffers adverse consequences from research activity. The researcher ensured that participation was completely voluntary. Respondents' identity was protected by exercising their anonymity and confidentiality.

The researcher allowed all the participants to know the purpose of the research and the institution supporting it. Therefore the purpose of the study was provided in the introductory remarks indicating the need to assess the implementation of Ministry of Education safety guidelines on physical infrastructure in public secondary schools in Nairobi West region. The researcher also explained that the results of the study would be used in a dissertation as a partial fulfilment for a Doctoral Degree.

## **CHAPTER FOUR**

### **4.0 DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION OF FINDINGS**

#### **4.1 Introduction**

This chapter presents data analysis, results and discussion of the findings on the assessment of the implementation of the Ministry of Education safety guidelines on physical infrastructure in public secondary schools in Nairobi West region. The quantitative data were analyzed with the help of a computer software namely Statistical Package for Social Sciences (SPSS) windows version 13.0. This enabled the researcher to present data in frequencies, means, percentages, and summarized it in tables and figures. Qualitative data were presented in narrative and interpretative reports to depict the situation as it was on the ground. The chapter is thematically organized based on the research questions except the first part which explores the background information of the respondents. The last part of the chapter presents the tests of hypotheses.

#### **4.2 Demographic information of the respondents**

The background information of the respondents was considered bearing in mind that every target population has its own characteristics. These characteristics affect the way information is perceived (Okumbe, 1999). Information obtained was derived from the completed questionnaires for the headteachers, teachers and students and interview guide for Education officers. Frequencies and percentages were used to describe demographic data of the respondents.

### 4.2.1 Students' Characteristics

The students were asked to indicate their background characteristics. These included their gender and age bracket. This information is presented in Table 4.1

**Table 4.1: Students' Sex and Age bracket**

Sex	Male		Female		Total	
	F	%	F	%	F	%
	99	49.5	109	51.5	200	10
<b>Age</b>						
12-14	3	1.5	5	2.5	8	4
15-17	70	35	86	40.5	156	78
17+	26	14.5	10	5	36	18

As shown in Table 4.1, slightly more than a half of the students (50.5%) were female while 49.5% of them were male, an almost gender parity situation in the schools under study. This could be attributed to the Government's effort to attain gender parity in education by 2015 as outlined in the Sessional paper No1 of 2005 on Education Training And Research (MOE, 2005).

Regarding age bracket of the students who participated in the study, majority of them 151 (75.5%) were between the age bracket of 15-17 years. This could be due to the fact that students' sample did not include those in form one since they had not been in the current schools long enough to comprehend implementation of safety guidelines in their schools as opposed to those who were included in the sample. This could also reflect average age of students in secondary schools in the schools understudy and maybe elsewhere.

#### 4.2.2 Teachers' Characteristics

Teachers were also asked to indicate their background information. This included their sex, academic qualification, designation and working experience. This information is presented in Table 4.3

**Table 4.2: Distribution of Teachers by Gender, Academic Qualification,**

<b>Responsibility and Teaching Experience</b>		
	<b>Frequency (F)</b>	<b>Percentage (%)</b>
<b><i>Sex (Gender)</i></b>		
Male	14	35.9
Female	25	64.1
<b><i>Academic Qualification</i></b>		
Med	7	17.9
BEd	26	66.7
BA	2	5.1
BSC	2	5.1
Diploma	2	5.1
<b><i>Designation/responsibility</i></b>		
Teacher	10	25.6
Class teacher	8	20.5
H.O.D	16	41.0
Assistant teacher	2	5.1
Senior teacher	3	7.7
<b><i>Working Experience</i></b>		
1-5 years	6	15.4
6-10	4	10.3
11-15	7	17.9
Above 16 yrs	22	56.4

From the tabulated summary, majority of teachers, 26 (64%) who participated in the study were female. However, slightly more than a third of them 14 (35%) were male. This difference could be associated to the trends in teaching profession where there are a considerable number of women joining the profession. This could be associated to the fact that there are more female teachers in Nairobi County as

compared to other counties as shown by a study carried out by Muthini (2004) that most female teachers were joining their spouses working in Nairobi.

Concerning academic qualification, majority of teachers 27 (67.5%) had Bachelors degree in Education as their highest academic qualification. This may be due to the fact that these qualifications are the basic requirements for secondary school teachers in the public secondary schools. A few of them 7 (17.9%), however had Masters Degree in Education. This could have resulted from the fact that the Government has been providing paid study leave for teachers who wished to pursue Masters Degrees in Education. Presence of teachers with Bachelor of Science indicated availability of untrained teachers in the learning institutions under study; this could impact negatively on the teaching and learning process in schools.

According to Koech (1999), trained teachers are better placed to carry out their duties in a professional and effective manner to ensure good teaching and learning practices. Subsequently, this can lead to achievement of the goals and objectives of education which includes improved learning outcomes. He further indicates that, a professional teacher can teach better than an un-trained teacher since a trained teacher is well equipped with knowledge on implementation of educational initiatives.

In terms of work responsibility, 16 (40%) of them were heads of departments an indication that most schools under study had more than single stream due to increased enrolment. Other responsibilities held by teachers included; class teachers, 8 (20%) and heads of subjects 6 (15%). However, 10 (25%) teachers had no other responsibility besides teaching.

In the area of teaching experience, it was found that an overwhelming majority of teachers 34 (85%) had a rich experience of 6 years and above, out of this, 23 (57.5%) had a working experience of over 16 years. This could enhance implementation of government policies in schools. According to Okumbe (1999), teachers when well experienced are capable of implementing government policies effectively. Only 6 (15%) had a teaching experience of 1-5 years, indicating the current trend of government hiring more teachers.

#### **4.2.3 Head Teachers' Characteristics**

The study also sought head teachers responses concerning the implementation of MOE safety guidelines on physical infrastructure in the schools under study. This is due to the central role they play in school administration as asserted by Ziva (2002) that the headteacher is in a strategic position in the translation of Ministry of Education policies and objectives in to programmes within a school set up. Therefore the head teacher has an obligation to coordinate human resources, materials, time and finances in ensuring that safety guidelines are implemented in their schools. Head teacher' performance could be could be influenced by their characteristics ( Mutune, 2005). Their background information is as provided in Table 4.3.

**Table 4.3: Distribution of the Head Teachers by Gender, Age Bracket, Professional Qualification and Working Experience**

	Frequency	Percentage (%)
<b><i>Sex (Gender)</i></b>		
Male	6	37.5
Female	10	62.5
<b><i>Professional Qualification</i></b>		
Med	6	37.5
BEd	10	62.5
<b><i>Working experience</i></b>		
1-4 years	3	18.8
5-8 years	2	12.5
9-12 years	2	12.5
13 yrs and above	9	56.3
<b><i>Age Bracket</i></b>		
36-40	6	15.4
41-45	4	10.3
46-50	7	17.9
Above 50	9	23.1
<b><i>Other administrative duties performed before</i></b>		
Class teacher	5	33.3
HOD	10	66.6
Deputy Head	15	100

As shown in Table 4.3, out of the fifteen (15) head teachers who participated in the study, ten of them (10) were female and only 6 were male. The higher number of female principals in Nairobi County is perhaps a reflection of higher number of female teachers in Nairobi County. This concurs with Muthini (2004) who indicated that the observable higher number of female principals in urban and peri-urban schools than rural schools could be connected to concentration of female teachers in urban schools compared to their male counterparts. This contradicted the findings from the study conducted in Rachuonyo North and South District by Enose (2011) which indicated that there were few female principals (20 against 89) due to the fact that female teachers were reluctant to take up leadership positions and low self esteem among other factors. This indicates that education managers have a duty of creating awareness among female teachers regarding professional development.

In terms of professional qualification, most of the head teachers (10) had attained Bachelor of Education Degree as their highest academic qualification. A few of them (6) had Masters Degree in Education, an indication that they had required and adequate knowledge and skills to discharge their duties as expected. In reference to the working experience as principals, majority of them 9 (56.3%) had a working experience of 13 years and above. This could enhance their leadership roles since they were well versed with educational policies. The overall impression was that most of the head teachers had a rich experience to be in position to respond to the research questions.

On whether the head teachers had held other administrative responsibilities in school prior to their appointment to headship, all of them (15) indicated that they had held other administrative duties such as being class teachers (5), Heads of Departments (10) and deputy headship (15). The fact that all (15) of them had been deputy head teachers indicated that they had gained leadership experiences. This could also be associated to the requirement by the Ministry of Education that, one cannot be appointed to head a school unless they have been a deputy head before.

All head teachers who participated in the study said that, prior administrative knowledge had contributed to their stock of headship and management skills. This is in line with what Ayeni (2012) who asserted that prior knowledge and skills in administrative duties assists school principals in efficient management, monitoring, evaluation and reviews of the resource inputs and transformation process to produce quality outputs that meet set standards and expectations of the society.



#### 4.2.4 Demographic Information of DEOs and DQASO

The demographic details of six education officers were collected in order to gauge their abilities in supervising the implementation of Ministry of Education Safety guidelines on physical infrastructure. They responded to questions in the interview schedules regarding their gender, qualification and experience in supervision of education initiatives. Data on their responses is as indicated in table 4.4

**Table 4.4: DEOs' and DQASOs' gender, academic qualification, Period of Experience and their stay in current station**

Demographic details	DEOs Freq.	DQASO Freq.
<b><i>Gender</i></b>		
Male	1	1
Female	2	2
<b><i>Highest academic qualification</i></b>		
M Ed	2	2
B Ed	1	-
<b><i>Experience as a teacher (years)</i></b>		
Above 10	3	3
<b><i>Experience as Education officer (years)</i></b>		
1-5	1	1
6-10	1	1
10+	1	1
<b><i>Experience current station (years)</i></b>		
1-5	3	3

As shown in Table 4.4, there was an almost gender balance among education officers in the district under study. This trend was not observed among teachers and

headteachers in the same area. Five (5) education officers who responded to this study had Master of Education degree. All (6) of them had served as teachers for more than 10 years. The fact that all of them had served in their current station for less than five years could be due to the fact that Nairobi county had been operating as one district up to 2009 when it was split into nine administrative districts and officers posted to these districts. Therefore, academic, professional qualifications and administrative experience of the respondents subscribed to the basic requirements for an education supervisor according to job requirement of Ministry of Education. Thus they were qualified to supervise effectively the implementation of Ministry of Education safety guidelines on physical facilities in their respective districts.

#### **4.3 Research question 1: Extent of the Implementation of MOE Safety**

##### **Guidelines on Physical Infrastructure in Schools**

The most visible aspect of school's physical infrastructure entails quality of the security systems and maintenance of school building and grounds. This implies clean and safe environment that is conducive to education and has security of property, well maintained facilities, furniture and equipment, clean toilets, water and green environment and absence of harassment (Squelch, 2001).

This study was interested in assessing the implementation of MOE safety guidelines on various physical infrastructures in secondary schools in Nairobi West region. Various questions were asked to students, teachers, head teachers, District Quality Assurance and Standards officers and District Education Officers to establish the safety status of the physical infrastructure. The questions covered the following facilities: administration block, dining hall, kitchen, school libraries, classrooms, dormitories, sanitation facilities and perimeter fences among other things. Table 4.6

shows the distribution of students, teachers and headteachers responses on the safety of schools' kitchens. DEOs and DQASOs responses to the interview items are also quoted.

#### 4.3.1 Schools' Kitchens

**Table 4.5: Students', Teachers' and headteachers' responses on Safety Status of School kitchens**

Item	Students				Teachers				Headteacher	
	Yes		No		Yes		No		Yes	No
	F	%	F	%	F	%	F	%	F	F
Whether there was a kitchen	180	90	20	10	38	95	2	5	14	1
Whether it was safe	117	58.5	79	39.5	15	37.5	35	87.5	5	10
Whether it was well equipped	50	25	150	75	10	25	30	75	6	9
Whether food was safely stored	20	10	180	90	3	7.5	37	92.5	7	8
Whether cooks were qualified	25	12.5	175	87.5	8	20	32	80	5	10

As shown in Table 4.6, majority of the respondents; students 180 (90%), teachers 38 (95%) teachers and headteachers (14) indicated that there was a kitchen in place. Availability of kitchens in almost all schools under study could be due to the fact that most day schools were having lunch programmes to enhance access to education and increase retention rate. Supporting this view, Carter (2002) asserts that food programmes in schools are a common tool used to attract children to school and to reduce short- term hunger to help students concentrate and learn.

Majority of students (58.5%) stated that kitchens in their respective schools were safe. This contrasted the views of teachers, 35 (87.5) and headteachers (10) who felt that school kitchens were not safe. They cited the following security threats; kitchens were too small to cater for cooking needs, dangerous features like loose ceilings and exposed electrical wires, lack of exhaust systems and use of sub standard materials to construct kitchens.

Similarly, large number of respondents; 150 (75%) students, 30 (75%) teachers and nine (9) headteachers indicated that kitchens were inadequately equipped. They lacked adequate basic equipments like utensils, cooking gas or and firewood among other related facilities, thus posing a health risk. One of the District Quality Assurance and Standards officer commented that “ most schools’ kitchen lack electrical equipments to hasten kitchen duties , the available ones not in good state of repair” This inadequacy could result to poorly prepared food pausing health complication to students and even ignite strikes which could cause damage of school properties or even loss of lives.

Most students 180 (90%), teachers 37 (92.5%) and headteachers (8) felt that there was poor system of food storage both for dry and refrigerated items. Similarly, storage shelves and containers were not being cleaned regularly; this could be a health hazard to the users. One District Education Officer stated that “good food storage is necessary in schools because majority of cases of food borne illness result from lack of proper temperature control”. Large number of students 175 (87.5%), teachers 32 (80%) and headteachers (10) indicated that most of those working in school kitchens were not qualified since they had little or no education and their health status had not been medically verified. Another District Education Officers stressed the need of qualified cooks in schools by saying that:

In most schools, staff who work in kitchen are not given health and safety training. Such training is important because the equipments used in kitchen can be particularly dangerous. Such trainings can focus on all risks that employees are exposed to and the precautions needed

Other responses showed that there was inadequate time for proper cleaning of kitchens due to shortage of kitchen staff hence the observed spilled water, grease and food particles on the floor. This made the kitchen unsafe since kitchen staff could slip or fall given that they were carrying heavy loads or pushing trolleys which increased risk of falling. This was echoed by one District Education Officers during the interview when she stated that:

In a number of schools in this district, kitchens are ill equipped. Suitable *jikos* for preparing large amounts of food are not available and facilities for first aid are lacking. The few available ones are not working and workers have not been trained on how to use them. Kitchen floors are not kept clean, dry and free from obstruction, this, coupled with exposure to hot substances and manual handling of huge loads make kitchen environment extremely dangerous.

On the cleanliness and orderliness of school kitchen, another District Education Officer commented that “some kitchen staffs do not put away blooms and mops after use. They leave them out against walls or tables where they can easily trip someone leading to a fall”

District Quality Assurance and Standards Officer in one of the districts indicated that ventilation systems in kitchens in some of the schools in the district were not being checked regularly and maintained to ensure users comfort and safety. This, he said could result in loss of concentration, irritability, muscle crump and even fainting. He commented that:

Working in kitchen involves exposure to very high temperatures and ventilation is not to the required standards. Some catering staff do not use the right clothing and some synthetic materials used could increase the risk. It is notable that under some circumstances personal protective equipment may be necessary either to protect against risks that cannot be otherwise controlled, or for use in combination with other controls. Such equipments could include; aprons and overalls to protect from hot splashes while gloves could be used to protect hands and arms from burns and cleaning detergents.

Regarding ventilation in schools' kitchens, the researcher observed that in most schools, administrators had not provided effective and suitable ventilation to create a safe and comfortable working environment. To support the importance of ventilation in school kitchens, Reid (2000) postulated that cooking and catering can produce significant amounts of fumes and vapour as well as large amounts of heat. Therefore mechanical extraction, via a canopy hood installed over the cooking appliances can remove these fumes and vapour and discharge them to a safer location.

One District Assurance and Standards Officer pointed out that “high temperatures and humidity are not unusual in kitchens because of the cooking process and the need for food to be served hot, these conditions can have an adverse effect on catering workers” Commenting on the same issue of kitchens' safety, another District Education officer remarked that:

Although there is a large number of catering staff that work part time, there are never trained on health and safety issues to equip them with the necessary skill and knowledge to combat disaster if it struck. Lack of such trainings was putting students at risk while in school premises”

The researcher observed that many chemicals used in school kitchens were not safely stored, this posed great danger to students and catering staff. In support of safe storage of chemicals used in kitchen, Clark (2002) postulated that many chemicals such as oven cleaners used in school kitchens are hazardous because they are

corrosive and can cause burns, skin irritations, asthma and other breathing problems if proper storage and controls are not put in place.

It was observed that most schools had not complied with the Ministry of Education safety guidelines fully in ensuring kitchen safety. Majority of school kitchens lacked necessary equipments, were not well ventilated, clean and well maintained. There were no slotted cases for storage of knives and other sharp equipments, smoke outlets were lacking hence workers were at risk of developing respiratory and chest complications.

#### 4.3.2 Schools' Dining Halls

**Table 4.6: Students', Teachers' and headteachers' responses on Safety Status of Schools' Dining Halls**

Item	Students				Teachers				Headteacher	
	Yes		No		Yes		No		Yes	No
	F	%	F	%	F	%	F	%	F	F
Whether there was a dining hall	120	60	80	40	30	75	10	25	10	5
Whether facilities were adequate	50	25	150	75	10	25	30	75	4	11
Whether dining halls were used for other functions	195	97.5	5	2.5	36	90	4	10	12	3
Whether it was safe	117	58.5	79	39.5	10	25	30	75	6	9

Dining halls are essential for controlling the hygienic conditions in schools when the students are eating. In response to whether there were dining halls in schools, 120 (60%) students, 30 (75%) teachers and ten (10) headteachers said yes. It was notable that the responses on the availability of school kitchens were higher than those on dining halls. This indicated that most schools though they were providing

meals did not have dining halls in place. This could reflect that students were having their meals from unsafe and unhealthy locations. Stressing on the need of a safe and healthy eating place, Calabrese (2001) indicated that eating from unsafe places could lead to food poisoning which occurs as a result of eating contaminated food with certain types of bacteria, parasites, viruses or toxins. Opposing the idea of students eating from open and unsafe places, one of the District Education Officer during the interview commented that:

Some schools do not have a dining hall. When served food from the kitchen, students normally find shelter in the field, classrooms or other open places. This practice is dangerous since it compromises health and safety of learners and it contravene ministry of education safety guidelines.

On the same issue of eating from unsafe and open places, one District Quality Assurance and Standards officer postulated that:

Other than lack or inadequate dining hall space and facilities, increasingly, school administrations are shortening lunch breaks and using part of it for tuition. This can be counterproductive, leading to stressed students who have little time to sit in a dining hall, eat and digest their food, relax and recover to concentrate during the afternoon lessons.

Majority of respondents; 150 (75%) students, 30 (75%) teachers and 11 headteachers said that school dining hall facilities were inadequate. They commented that most dining halls lacked adequate, appropriate and well maintained furniture such as chairs and tables. Utensils and other related facilities were not in good state since they were worn out and unkempt. Regarding dining hall facilities and atmosphere, Crowe (1999) asserted that a safe and healthy surrounding atmosphere in a school dining hall can have an impact on students' sense of well being, in and in terms of changing the culture, ethos and understanding of eating habits.

Commenting on the dining hall facilities, one District Quality Assurance and Standards Officer said that:



There is acute shortage of dining hall facilities such as chairs and tables in some schools. The few available ones are inappropriate, broken and old; they are not in good shape. Torn and broken things convey the impression to the students that the room and everything in it is not well taken care of. This feeling can trigger sense of violence in students which can result to destruction of school properties.

The researcher observed that in nine (9) schools in the region under study, dining halls were small and squeezed. Furniture did not match the school enrolment in that most students did not have tables and chairs to use. They were observed having their meals while standing. This contravened what Dewees (1999) states that like everyone else, students will appreciate feel safe and be motivated by the right atmosphere and organisation in their dining hall. Gwengo (2003) further asserts that in order to develop safe and healthier eating habits, students must respect and enjoy the environment they use while eating.

Overwhelming number of respondents; 195 (97.5%) students, 36 (90%) teachers and twelve (12) headteacher indicated that dining halls were being used for other functions like; worship on Sundays and other days as occasion could demand, entertainment hall, parents meeting hall among other social functions. Most teachers and students said that some of the functions took place during school time hence disrupting school programmes and forcing students to take their meals from unsuitable and unsafe places.

However, majority of the headteachers stated that such income generating functions did not interfere with normal school programmes. Perhaps, these contradicting views could be attributed to the fear by the school headteacher to use their position to expose students to hazardous situations. Stating crucial role of the school headteachers to provide safe and secure learning environment, Squelch (2001) postulated that school headteachers and other stakeholders have important role to play

in facilitating and enhancing safety in schools. One District Education Officer reported that:

In most of the schools, dining halls are used for other functions since majority of the schools do not have multi- purpose halls. In this case headteachers are advised to go for tables and chairs which can be stacked so that they can be stored in a corner or a store room. This can prevent damage that is associated with such occasions.

Asked whether school dining halls were safe, 117 (58.5%) students, 10 (25%) teachers and six (6) headteachers said yes. However, other than the students, majority of other responses; 30 (75%) teachers and nine (9) headteachers felt that school dining halls were not safe. They indicated that due to shortage of facilities and personnel, meals were served from one point, these attracted long queues of students waiting to be served. They felt that this was risky since students were frustrated. This was supported by one District Quality Assurance and Standards officer who pointed out that: “No amount of good seating and attractive menu and displays at any school can satisfy learners if they are frustrated by having to spend too much time queuing during lunch”.

Respondents stated that some school dining halls did not meet the needs of all students including those with disabilities. This was evidenced by most observed school dining halls without ramps and wide enough doors to allow access to people with disability either independently or with assistance. One District Education Officer commented that “most dining space do not have flexible layout to allow access for independent wheelchair users and their carers to sit and dine alongside others” Majority of the respondents felt that inadequate natural lighting in school dining hall was making these facilities unsafe. This concurred with Hammond (2003) who stated that lighting influences mood; therefore a dining hall should have plenty of natural light or interior lighting with a pleasant softer quality.

Other unsafe dining hall situations that were cited included; lack of adequate ventilation, this could lead to fatigue and respiratory related complications. Peeling paint and poor choice of dining hall paint colour were unsafe for students. This was in line with Brady (2003) who stated that dining hall colours should be considered because the colour of paint can help cool or warms the room or affect the feelings of the users.

The researcher observed that dining hall activities were being planned immediately before or after lunch time. This increased pressure on catering staff; it also increased students' possibility of rushing their meals. This concurred with what Dierkx (2003) states that students can feel rushed and tensed up if while still eating, kitchen staff starts collecting utensils, mopping floors and clearing tables. A number of food issues such as eating disorders and food allergies which could impact on learners' health and safety as observed by the researcher were not being given special consideration. This could make such learners feel alienated or set apart from others.

In seven (7) schools under study, dining hall rules had not been strategically displayed to deter students from engaging in distractive behaviour. According to Squelch (2001) it is the duty of school administrators to spend time making links between school rules and dining hall behaviour. This will ensure that students will know what is expected from them, these rules can be referred to by staff present in the dining room to reinforce and promote good behaviour.

It was observed that in most schools, there was no allowance in dining halls arrangement for teachers to have meals together with students to promote social skills such as table manners which students can carry into their future lives. On this aspect one District Education Officer said that "It is crucial to encourage teachers to sit

among pupils during meals. This can successfully benefit the school safety by enhancing staff- pupil relationship.” Minimal or lack of students’ supervision during meal time was witnessed. This was found to be dangerous because in absence of the teacher and prefects on duty, students could push each other and spill hot substances on one other causing burns and scalds.

The study established that majority of the schools had not implemented Ministry of Education safety guidelines regarding dining halls as required. These inadequacies failed to present dining halls as safe and wonderful place that appeal to students. The surrounding environment as well as meals in most schools’ dining halls did not encourage students to feel safe, happy, healthy and comfortable in those places. This could inhibit the atmosphere of a dining hall to bring the whole student body together everyday around a set of values, in harmonious surrounding that promote safe and healthy eating habits and interactions.

### 4.3.3 Classrooms

**Table 4.7: Students', Teachers', headteachers' DEOs and DQASOs responses on Safety Status of Classrooms**

Items	Student				Teachers				Headteacher		DEOs		DQASOs	
	Yes		No		Yes		No		Yes	No	Yes	No	Yes	No
	F	%	F	%	F	%	F	%	F	F	F	F	F	F
Whether classrooms were spacious	140	70	60	30	12	30	28	70	5	10	1	2	-	3
Whether classrooms Were appropriately located	90	45	110	55	10	25	35	75	8	6	2	1	1	2
Whether classrooms Were safe	105	52.5	95	47.5	20	50	20	50	10	5	1	2	-	3

Majority of the students, 140 (70%) indicated that classrooms were spacious. However, most teachers, 28 (70%), Headteachers, ten (10), DEOS, two (2) and, two (2) DQASOs felt that classrooms were not spacious. Teachers reported that student to teacher ratio was as high as 60: 1. This was hampering effective teaching learning process and safety of students. This view is supported by Pouget (2010) who postulated that the classroom environment is not only the physical setting but also the learning environment, which the teacher determines and implements.

Headteachers and Education officers felt that , in most schools, classrooms that had been designed to accommodate 35-40 students was now accommodating as many as 70 students. This contrasted the view mentioned by Squelch (2001) that,

conducive classrooms are essential for sound learning and the safety of both teachers and the students.

Regarding whether classrooms were appropriately located, majority of the students, 110 (55%) said yes. The rest 90 (45%) felt that classrooms were inappropriately located such as being too close to the toilets hence affecting their concentration level and health. This was in line with Carter (2002) who asserts that for any meaningful teaching to take place both students and teachers should be provided with safe and conducive environment to carry out their duties. Most teachers, 30 (75%) as compared to headteachers (6) felt that classrooms were not appropriately located, they indicated that some classrooms were too close to the fences, this exposed students to noisy environments hence disrupting learning.

Teachers reported that since some classrooms were adjacent to public roads, there was too much noise from the motorists and pedestrians, it was not unusual for students to peep through the windows and other openings to see what was happening even when teaching and learning was in progress. This was reported to be risky since students could access illegal items from outside.

Headteachers who felt classrooms were not appropriately located indicated that due to inadequate facilities some classrooms had been converted to staffrooms and other offices, this was not conducive to either the staff or students since there were a lot of unnecessary interactions between the two. One District Education Officer commenting on how some classrooms were inappropriately located stated that “some classrooms are very close to the school entrances such that a stranger can just sneak in without being noticed since some administration blocks are hidden behind classrooms”. This school layout contradicts what Hale (2002) postulates that if offices

are hidden deep within their respective schools; they are poorly positioned to guard unwelcome

Responding to whether classrooms were safe most students, 105 (52.5%), headteachers, ten (10) and half of the teachers, 20 (50%) said yes. However, majority of the Education Officers, two (2) DEOs and all (3) DQASOs were of different view, they said most classrooms were not safe. This difference could be due to the fact that, as Education Officers, they were well placed to identify lack of safety compliance in schools as opposed to other stakeholders who were not very familiar with safety guidelines. In this view, Gwengo (2003) indicated that the workshops at District level are important in training various stakeholders like headteachers, teachers and learners on their role in the safety guidelines implementation process. To stress on how classrooms were unsafe, one District Education Officer commented that, “Some classrooms are unsafe since they have leaking roofs and sagging ceilings that could easily injure students, one such case had been condemned by the Ministry of Public Works yet it was still being used”

Other unsafe situations reported by respondents included, overcrowding, poor arrangement of furniture, loose electrical fittings and uneven floors that generated a lot of dust which could affect health of students who spent a lot of time in these classrooms. A District Quality Assurance and Standards Officer commented that “injuries were occurring at schools due to potholes in classrooms; in some cases change in floor level is not highlighted”. This could lead to students hurting themselves while moving within the classrooms.

According to most education officers, school administration was not giving a lot of attention to classrooms, since the little money available was directed to paying

salaries to Board of Governors' employed teachers due to acute shortage of Teachers employed by Teachers Service Commission (TSC). Regarding classrooms safety, District Quality and standards officer said that:

There are some schools where a classroom of 7.5m X 5.85m which should accommodate a maximum of 30 learners in one-seater desks or 40 learners in two seater desks in line with the provisions of the Ministry of Education guidelines was accommodating as many as 60 learners in one seater desks. These classrooms are overcrowded and the desks are haphazardly placed hampering easy and orderly movement of learners and teachers as well as compromising safety of users.

Similar sentiments were reported by a District Education Officer. He felt that in some schools, all classrooms were not being given attention they deserved. He commented that:

Although majority of schools here have tried as much as possible to improve general safety of their classrooms, there are some whose classrooms are still unsafe. In one of these schools, classroom windows and doors still had grills and were opening inwards; they lacked adequate ventilation and natural light, moreover, classroom floors were uneven and had developed cracks that were generating a lot of dust which could pose risks to health of both teachers and learners.

Out of the six (6) education officers who were interviewed, four (4) felt that in the storied buildings, stairways leading to classrooms were not wide enough to allow for easy passage, moreover, the handrails along the stairs were not strong, of the recommended height and firmly fixed. This was unsafe for the learners who were sometimes observed pushing each other along the stairways. District Education Officer had this to say:

Classroom corridors in some schools are not well ventilated and lit, they are very narrow hence students walk along bumping into each other and this could be risky to them. Access steps and ramps are not properly maintained and provided with handrails.

A Quality Assurance and Standards Officer indicated that "in some schools, classrooms' lighting is not bright enough to allow safe access and exit"



The researcher observed that, in most schools, classrooms were not adequate as compared to enrolment; furniture was inadequate, inappropriate to the size of users and poorly maintained with evidence of breakage that had not been addressed. Most windows had no glasses, partly painted glasses or with blinds to protect students from glare and heat from the sun. Some overgrown trees bending dangerously near classroom roofs were observed, this posed danger to students. Trees were littering school compound by shading leaves during dry season making such schools very untidy and disinviting. Some classrooms were observed having students' unfriendly black boards or walls which were very small, placed either too low for students at the back to see or too high for short teachers to use. Faint paint that hindered students to see what was written on them while some were broken and in bad state.

In some schools, administrators were not putting a lot of emphasis on classroom safety since some electrical fittings were loose and trailing electrical leads and cables had not been protected. This could jeopardize safety of learners as was indicated by Reid (2002) that school buildings must be clean, comfortable and devoid of vandalism, loose and dangerous electrical wires and graffiti. Regarding this issue one District Quality and Standards Officer had this to say:

When I walked in some classrooms in one of the school in my district, I found very many loose electrical wires and sockets that were dangling dangerously. The headteacher who was taking me round indicated that there was a lot of vandalism of the same by the learners and school management was unable to cope with such repairs and maintenance.

The study established that most schools had not complied with Ministry of Education safety guidelines fully as evidenced by conversion of other structures into classrooms due to swelling enrolment brought about by free secondary education. This was unsafe due to overcrowding, inadequate ventilation and poorly maintained related facilities.

#### 4.3.4 Schools' Libraries

**Table 4.8: Students', Teachers', headteachers' DEOs and DQASOs responses on Safety Status of Schools' Libraries**

Items	Student				Teachers				Headteacher		DEOs		DQASOs	
	Yes		No		Yes		No		Yes	No	Yes	No	Yes	No
	F	%	F	%	F	%	F	%	F	F	F	F	F	F
Whether there was a Library	95	47.5	105	52.5	15	37.5	25	62.5	5	10	1	2	1	2
Whether the library was appropriately Located	30	31.5	65	68.4	5	33.3	10	66.6	1	4	1	2	-	3
Whether the library Was well stocked	20	21	75	78.9	4	26.6	11	73.3	-	5	-	3	-	3
Whether the library was safe	10	10.5	85	89.4	6	40	9	60	1	4	-	3	1	2

Table 4.8 Indicates that majority (10) of the schools did not have a library in place. The researcher observed that in the few schools that had libraries, some of them were small facilities that were more of book stores than libraries. This trend could undermine the importance of school libraries and the pivotal role they play in raising learners' literacy levels and improving their access to knowledge.

According to Church (2002) school libraries are an underutilized resource, often perceived by the headteachers to be a low priority. Finkle (2000) further states that a library, what should be a vital ingredient of our school system is marginalized and seem not to be connected with the acknowledged educational priorities of literacy

and information skills supporting knowledge acquisition, which are its core values.

One District Education Officer commenting on the importance of school libraries had this to say:

While some headteachers and schools' board of governors see the school libraries as an essential element of their school development plan, many others have given little thought to the part it could be playing in the life of the school. It is a strategically useful resource that could play a wider role of helping the school to deliver after the school hours and to work with the families and the wider community to support literacy and enjoyment of reading.

Appearing disturbed by the fact that many schools under her jurisdiction did not have libraries, one District Quality Assurance and Standards officer remarked that:

Whether or not a school has a library is dependent upon the headteacher. Whether or not this school library is an effective one, able to contribute fully to the learning outcome of the school is dependent upon the effectiveness of leadership and management within the school.

She paused and asked me "are you getting my point?" I said "yes". Then she continued with her explanation:

Some school managers with a shaky view of information and knowledge acquisition argue that school libraries are no longer necessary because of the ready access to a plethora of information via the internet. They forget that the uncontrolled growth of the internet and the variable levels of access to e-publications and e-resources are placing greater than ever demands on the information handling capacities of students of all ages including their ability to read and digest material published in a wide variety of forms. Therefore school libraries have an essential role to play in helping students at every stage in their quest for learning and in equipping them to function effectively and safely in an increasingly competitive electronic environment.

Respondents were asked whether schools' libraries were appropriately located or not. To answer this, 55 (68.4%) students, 10 (66.6%) teachers, four (4) headteachers and four (4) Education officers said no. Most of them indicated that some school libraries were located near noisy environments like busy roads, pathways and shopping centers. Noise from motorists, pedestrians and loud music played in

some shops were making libraries unfriendly for any meaningful reading. This contradicted concerns raised by Clark (2002) regarding facilities planning when he stated that in planning libraries it is good to respond to the needs of the learners. Therefore a library needs to be characterized by comfortable, safe, quiet and welcoming environment offering more social reading opportunities. Other issues related to the location of the schools' libraries included; placing libraries among classrooms, next to the staff rooms and open fields where a lot of activities were taking place. This was observed to be disruptive to the library users.

When one District Education Officer was asked to respond to the appropriateness of schools' library location, she stood up and pointed at some noisy surrounding next to her office and asked me "do you hear how disturbing the noises from these shops are?" I said "yes" then she sat down and continued:

Some schools in this district have their libraries surrounded by such noisy surroundings. According to me a library is a learning resource centre to support all the predominant modes of teaching and learning in the school, ranging from teacher-led lessons to independent learning and e-learning. Therefore, I feel these facilities require quiet environment to allow all these activities to take place.

A District Quality Assurance and Standards officer in the same district who had been interviewed earlier commented that:

According to my own view, school libraries require to be placed in separate location and have well publicized opening times so that students can make the best possible use of the books instead of having it stacked in the middle of other facilities that are constantly in use. A lot of noise generated from such facilities is not healthy for those using the library.

Regarding whether schools' libraries were well stocked, a large number of respondents, 75 (78.9%) students, 11 (73.3%) teachers, five (5) headteachers and all (6) Education Officers stated that schools' libraries were not well stocked. Most of these respondents indicated that most school libraries were lacking or had very few

contemporary materials to equip students with relevant information. Instead they were stocked with old books mostly donated by well wishers even though such books were not relevant to the users. Stressing the need of well stocked school library, Church (2002) stated that it is appropriate for a school library to maintain excellent book stocks to stimulate reading culture among young people, more access to up-to-date technology and more targeted services aimed at meeting the particular needs of a particular group.

One District Quality Assurance and Standards Officer when asked to comment on the schools' library stock was disappointed by the fact that some schools administrators were not paying required attention to their libraries. She said:

We acknowledge that whilst many schools boast impressive and well stocked school libraries, there are still those that are poorly located, badly organized and inappropriately stocked with old, out of date material, much of which is in poor condition. In some schools the library is divided between individual classes and there seem to be no real system in place to encourage effective purposive borrowing. I feel that, unless a trained librarian is put in place, many school libraries become just random collections of books which offer no attraction to children to remain largely underutilized. Many librarians and teachers are not adequately trained in library organization or stock promotion.

When a District Education Officer from the same district was asked to comment on the schools, library stock, she remarked that:

The aim of a school library is to have a collection of well used information and enjoyable books. It is better to have a small stock of interesting books than a large collection that nobody reads. To achieve this, one must sort through the existing stock carefully and remove books that are of no value to a school library. Donated books may not be what you want, or what the students need. Some are inappropriate for the age of the students because they do not stimulate their interests.

The researcher observed that most of the schools' libraries were stocked with old books that had not been properly catalogued. Students were observed getting frustrated as they tried to locate books without much success and without any

assistance from the librarians. Although school libraries are supposed to have a variety of stocks besides books such as magazines, newspapers, pamphlets, flipcharts, maps, posters and even audio-visual stocks, well maintained, relevant and attractive to arouse curiosity of students, most of the libraries were having outdated and tattered books.

Inadequate safety of both students and library stock in schools' library was seen as a problem by most of the respondents, 85 (89.4%) students, nine (9) teachers, four (4) headteachers and four (4) Education Officer. These responses contravened Finkle (2000) who postulated that a well run and safe school library could have impact on learners' literacy levels, enjoyment of reading, information literacy skills and access to knowledge. Some students felt that some schools' libraries were too small to offer conducive environment for study. This was in line with Squelch (2001) who suggested that the school's library room be big enough for at least one form of students to visit at the same time.

Regarding safety of the schools' library, most headteachers felt that due to inadequate funds and lack of support from parents, most school libraries remained unsafe. They stated that books can last longer and are easier to locate if they are displayed on shelves. Such basic furnishing is hard to come by due to shortage of finances. The researcher observed that bookshelves were not of the required materials and height. Students were seen struggling with the inappropriate heights of shelves, tables and chairs which was unsafe for them. Asked to comment on stock safety, one District Education Officer said that:

Books are made of paper, which is a delicate material prone to damage. They will easily be spoilt if they are carelessly or roughly handled. Books are also difficult and expensive to obtain in schools' libraries. It is important to take extra care and keep books in good condition. Water can be the biggest enemy and when school libraries have leaking roofs; books can be damaged beyond repair. We always advise school administrators to avoid water getting into the libraries by maintaining good roofs, keeping books in raised shelves and to keep gutters clear and windows closed during rainy seasons. High shelves would also facilitate cleaning the floor.

Some teachers maintained that some libraries were not well lit and ventilated hence making it hard to use them for study. They suggested wide windows to allow air circulation. In support of this view, one District Education Officer had this to say:

Windows are essential. They provide good reading light and ventilation. A hot room makes people want to sleep. In humid places, books may be spoilt by moulds if library room is damp. Good ventilation reduces these problems.

When the same District Education Officer was probed more on what makes schools' library unsafe, she said this "there are a lot of safety issues in schools' library, do you want to hear more?" after I said yes, she continued:

Safety of books in the library is wanting in most schools here. Books keep on disappearing from the shelves. This could be due to improper lending and borrowing procedures. You find that others are torn while others have missing pages, all because schools have failed to put strict measures in place. Covering of books using hard covers or dust jacket can increase their life span. Other safety concerns include; unsecured and unlocked doors when there is no one in the libraries, poor electrical wiring, inappropriate heights of raised cupboards that knocks children and poorly maintained wall fixtures.

The researcher observed that some libraries had glass-fronted lockable bookcases for the most desirable books. A list of titles of the books contained in these bookcases was pinned where students could easily see. These were used during supervised study time. This practice could control theft and tearing of books. In some instances, the researcher witnessed students who were left in the library unattended either by their teachers or the school librarians. This could be unsafe because students could vandalize library stock or injure themselves as they played within the facility.

Asked whether leaving students unattended while using the library was a safety threat to learners, one District Education said that:

Children can abuse computers and access undesirable information from the internet. With the growth in electronic communication and increasing mobility of the internet, online bullying and cyber crime is becoming an increasing issue in schools. Therefore, school librarians and teachers have a definite role to play in the education and welfare of students. Many school librarians have been active in this area and have contributed towards getting their schools a written policy on internet. School librarians are in a good position to teach pupils about ethical aspects of internet use and keeping safe while on line.

A District Quality Assurance and Standards Officer explained that insects like cockroaches, mosquitoes, termites, red and black ants not only spoil books but disturbs students. It is prudent to keep library environment clean to avoid such. To explain how destructive insects can be to the library stock, she asked me “can you allow me to quote a school headteacher?” after I said yes, she explained that a headteacher of a school she had visited lamented about the destruction that had been caused by insects. She told me this:

We were so proud of our book shelves and the magazine display racks. They looked so smart with all the stock piled up high. It was really nice for a year and then the white ants moved in. In less than two months all our books, journalism materials, pamphlet collections and magazines had become food for the insects. Worse still, the office building had to be partly rebuilt.

As she continued, I suggested to her to try metal bookshelves to avoid similar problems. She interjected me with this statement:

What! Insects cannot eat metal bookshelves. However, you may have problems with rust, which also spoil books. I think the rule is to keep everything clean and anticipate trouble because even other animals like rats and mice can spoil your bookshelves and stock. The issue is to put down traps to eliminate them and act quickly.

The Ministry of Education safety guidelines regarding physical infrastructure in the schools under study had not been fully implemented as evidenced by lack of libraries in schools, inappropriate location of this facility, poorly stocked libraries and



lack of safety for both stock and the library users. This is in line with Clark (2002) who stated that schools' libraries are useful not only to students but also for teachers since they can improve their teaching by using stock from the library. To achieve this, school libraries needs adequate safe space, a range of current appropriate books and other learning resources backed by ready students' access to Information Communication Technology (ICT).

#### 4.3.5 Schools' Dormitories

**Table 4.9: Students', Teachers', Headteachers' DEOs and DQASOs responses on Safety Status of Schools' Dormitories**

Items	Student				Teachers				Headteacher		DEOs		DQASOs	
	Yes		No		Yes		No		Yes	No	Yes	No	Yes	No
	F	%	F	%	F	%	F	%	F	F	F	F	F	F
Whether the dormitories were spacious	50	41.6	70	58.3	9	36	16	64	2	4	-	3	-	3
Whether the dormitories were appropriately located	70	58.3	50	41.6	10	40	15	60	2	4	1	2	1	2
Whether the dormitories were safe	100	83.3	20	16.6	5	20	20	80	2	6	1	2	-	3

As indicated in Table 4.9 Most respondents, 70 (58.3%) students, 16 (64%) teachers, four (4) headteachers, all (3) DEOs and all (3) DQASOs stated that schools' dormitories were congested. Students indicated that overcrowding in the dormitories compromised their hygiene and safety because sometimes they were forced to share

beds. A study conducted by Magdla (2007) showed that overcrowding in boarding schools especially those in informal settlement was promoting moral decay among students especially when they were allowed to share beds. Teachers, headteachers and Education officers asserted that congestion in schools' dormitories was due to increased demand for boarding secondary schools and few boarding schools in the region. One DEO argued that:

Majority of parents in this region dislike taking their children to boarding schools in rural areas due to increased cost of living and cultural shock experienced by their children. They prefer having them near their homes. This has strained the few boarding schools available leading to overcrowding in the dormitories and other facilities.

On the same issue, one District Quality Assurance and Standards Officer commented that “admission in some boarding schools is not based on bed capacity due to pressure put on headteachers from different quotas to admit more students” The researcher noted that five (5) schools out of the six (6) boarding schools that participated in the study had overcrowded dormitories. This situation compromised students' health and safety since most schools had not complied with safety guidelines requirements. A District Education Officer noted that:

unsafe situations in the dormitories is as a result of overcrowding, these facilities are overstretched such that bunk beds are even accommodating three learners exposing them to danger given that the materials used are very weak. There is hardly any space for students to place their luggage hence "mabati" boxes are squeezed under the bed and in the little available space exposing students to injury and harm. Worse still, some school matrons or teachers in charge lock dormitory doors from outside at night when students are asleep. This is a dangerous practice that can lead to death of students in case of an emergency.

When asked whether dormitories were appropriately located, majority of the students, 70(58.3%) said yes. However, most teachers, 15(60%), headteachers, four (4) and four (4) Education Officers, felt that most dormitories were not appropriately located. They remarked that most dormitories were far from administration block

making it hard for proper surveillance. Headteachers stated that some schools' layout did not allow proper location of dormitories. In support of this view, one DEO posed that:

In some old schools, construction of buildings was not guided by any plan. In fact some buildings were converted to serve as dormitories though initially they were not meant for that. It is not strange to find dormitories located at very unusual places like at the school entrance or bordering a shopping centre. To correct such anomalies is deemed expensive by the school administrators since it calls for complete overhaul of such buildings.

It was observed that, some dormitories were located at the extreme ends of the school compound near unsafe environments. There were no janitors' rooms adjacent to dormitories to ensure safety of the students. Headteachers and deputy headteachers were not residing in the school compound as required by the Ministry of Education Safety Standards Manual for Schools in Kenya (2008). This could expose students to unsafe situations since they were left unsupervised in the dormitory area.

Majority of the respondents, 100 (83.3%) students, 20 (80%) teachers, four (4) headteachers and five (5) Education officers felt that school dormitories were not safe. Teachers, headteachers and Education Officers indicated that safety items were either lacking or inadequate in some schools' dormitories. Available fire extinguishers were not functioning and were not placed at easily accessible points. This was further enhanced by one District Quality and Standards officer, who argued that:

Most of fire fighting equipments are not available in majority of the schools within this district. The available ones are inadequate, not serviced, or non functional. They are not appropriately placed to allow easy accessibility. At the same time, most teachers, support staff and students have no knowledge on how to use them if need arises.

Students who felt their dormitories were not safe cited overcrowding, inadequate facilities, scarcity of water, dirty bathrooms and toilets; they said they were at high risk of getting infectious diseases. Other safety concerns raised by the

students included; poor ventilation and lighting, dilapidated buildings, theft, lack of mosquito nets and temporary structures being used as dormitories.

The researcher observed that, in most of the schools under study, dormitory doors and windows had grills, they were opening inwards and were not wide enough to allow easy passage. Most of the schools with storied buildings were not disability friendly since they had no ramps in place to cater for students with disabilities. On the issue of grills, one District Education Officer commented that “most head teachers feel that grills on doors and windows of dormitories, classrooms, libraries, laboratories and dining halls are almost unavoidable due security lapse experienced in some schools.”

It was reported that in 4 schools, dormitory doors were not being locked all the time when learners were in classrooms or in the play fields. This could encourage intruders. In some schools, it was reported that dormitory doors were sometimes locked from outside by the matrons, house masters/mistresses or teachers on duty when students were asleep to deter students from sneaking out of the school compound at night. This was found to be dangerous and against Ministry of Education safety guidelines on physical infrastructure since in case of fire breakout or any other incident requiring evacuation it would be impossible to do so. Similarly, dormitories lacked doors at both ends and an additional emergency exit at the middle. In few cases where an emergency exit existed, it was not clearly labelled “emergency exit” and it was usually obstructed by debris making it hard to use in case of an emergency.

Simatwa (2010) stated that it has long been presumed that, accidents just happen and therefore trying to prevent them would be a futile exercise. The truth however is that accidents are caused by certain definable factors that can be

prevented. Simatwa (2010) further indicates that, the main causes of accidents in schools are human related such as; carelessness, inattentiveness, ignorance, irresponsibility or negligence.

The study established that although in boarding schools dormitories are the single most used physical infrastructure where learners spend the longest continuous period of time in a day, some school administrators had not given a lot of emphasis on their safety. According to Omolo and Stewart (2010) dormitories should be fitted with emergency doors since they provide alternative egress during emergencies and failure to observe this can compromise security of students.

### 4.3.6 Sanitation Facilities

**Table 4.10: Respondents Responses on Safety Status of schools' Sanitation**

Items	Student				Teachers				Headteacher		DEOs		DQASOs	
	Yes		No		Yes		No		Yes	No	Yes	No	Yes	No
	F	%	F	%	F	%	F	%	F	F	F	F	F	F
Whether the toilets were adequate	90	45	110	55	18	45	22	55	5	10	1	2	-	3
Whether the toilets were adequately located	80	40	120	60	19	47.5	21	52.5	6	9	-	3	-	3
Whether toilets offered required privacy	73	35	130	65	11	27.5	29	72.5	4	11	1	2	-	3
Whether toilets were safe	105	52.5	95	47.5	10	25	30	75	9	6	-	3	-	3

As shown in Table 4.10 Majority of students, 110 (55%), teachers, 22 (55%), headteachers (10) and Education Officers (5) indicated that schools' sanitation facilities were inadequate. This concurred with the views expressed by Siringi (2001) that, pupil to toilet ratio was grossly ignored by majority of schools despite the fact that provision of sanitation facilities has implication on access and quality of learning. Students felt that toilets were not matching the students' population since they had to make long queues in order to use the few available ones during the short breaks.

One District Education Officer responding citing shortage of sanitation facilities commented that “most school administrators ignore the issue of toilets; they direct their finances to other tuition facilities”. The researcher observed that due to shortage of sanitation facilities, students were forced to go back to class before relieving themselves since they were unable to access the facilities within the short stipulated time. This could have diverse health implications on them. According to Glickman (2004) significant amount of disease could be prevented through better access to safe water supply, adequate sanitation facilities and better hygiene practices. Headteachers attributed shortage of sanitation facilities to inadequate funding by the government and parents’ laxity to pay more for construction of schools’ toilets. Teachers on the other hand felt that inadequate toilets were due to poor planning by school administration and less attention given to toilets by the school managers.

Concerning teachers’ and other staff’s toilets, seven (7) out of fifteen (15) schools had clean and adequate toilets which were well designated for ladies and gentlemen, they were also well labelled for easy access by visitors. However, in eight (8) schools, these toilets were as few as one (1) closet that was being used by both male and female. In one (1) school, teachers were sharing the same toilets with the learners; this could interfere with privacy and safety of the users.

Majority of the students, 120 (60%), teachers, 21 (52.5%), headteachers, (9) and all (6) Education Officers stated that schools’ toilets were not appropriately located. Most students felt that toilets were located very far from the tuition facilities and in some dark alleys far from the eyes of the school administrators where bullying and other forms of abuse were evident. Other students said that some dormitories had no adjacent toilets and where they existed, they were barred from using them due to water shortage. They had to cover long distances at night to which could expose them

to danger. On toilets location, the researcher observed that, two (2) out of five schools that had pit latrines, the structures were very close to the classrooms and were not on the downside. Stench from the toilets was evident in the classrooms and other parts of the school compound. This compromised health and safety of learners.

In Table 4.10, it is notable that overwhelming number of respondents, 130 (65%) students, 29 (72.5%) teachers, eleven (11) headteachers and five (5) Education Officers felt that schools' toilets were not providing the required privacy. Students indicated that some toilets were located in old and dilapidated buildings; some had wide gaping gaps and no doors. This not only compromised their health but also their privacy. Teachers and headteachers felt that some toilets were not providing privacy to the users since they were placed too close to each other, had no doors, were too close to the fences or entrances and they had not been well designated for boys and girls. The researcher observed that, in two (2) mixed schools, toilets for boys and girls were too close to each other. This could compromise privacy and safety of students.

Asked to comment on the privacy of sanitation facilities in schools, one District Education Officers said that:

Some school toilets don't even have doors and students are afraid and ashamed to use them. In some toilets, there are no locks on the toilet doors and the available ones are not functional, there was one case where the locks were only on the outside, the naughty students were locking their colleagues inside while others were just walking in without knocking. In some cases the gaps at the top and bottom of the closet were too low or too high; therefore children harassed each other by peeping over or below, and sometimes throwing or dropping objects at their peers while inside the toilets. This was humiliating and dangerous for students. There is also a lot of graffiti in some toilets inciting students to do undesirable things. I think school administration should consider these facilities more seriously than they are doing currently.

It was observed that, in some schools, sanitary pads disposal bins for girls had not been provided. Available ones were not appropriately located, some had been placed in an open common place hindering access and compromising hygiene



standards. It could also undermine students' privacy and impact negatively on their self image and self esteem. Compared to other respondents, a high number of students, 105 (52.5%) and headteachers (9) stated that sanitation facilities were safe. However, majority of the teachers, 30 (75%) and Education Officers (6) felt that sanitation facilities were not safe. Those who felt sanitation facilities were not safe cited lack of relevant facilities such as water points, sinks, soap, leaking roofs, poor maintenance among other issues.

The researcher observed that in ten (10) schools where ablution block was attached to the dormitories, three (3) schools had not maintained high degree of cleanliness and maintenance. Damaged taps, sinks, toilet seats and lack of mirrors especially in girls' toilets was observed. Regarding cleanliness and other hygiene situations in the toilets, 105 (52.5%) of the students indicated that, toilets were not cleaned regularly and water points to enable cleaning of hands after visiting the toilets were inadequate and very far from the facility.

For at least 120 (60%) students who responded to the study, there was no provision or access to facilities for hand washing and drying, toilet papers, soap and hand towels. This deterred students from using toilets frequently and it was also affecting the development of positive habits around personal hygiene. The study established that the standards of cleanliness was satisfactory for 40% cases, 50% unsatisfactory and only 10% saying that their toilets were adequate, clean and well maintained. When a District Education Officer was asked to comment on the extent of the implementation of safety guidelines regarding toilets in the schools under his jurisdiction, he posed that:

In some schools, toilets are adequate, clean or even fantastic; this proves that there is really no excuse for the nasty school toilets. It is a question of taking responsibility, making it a priority and involving students and other stakeholders. I am saying this because this issue is important and one which impacts daily on the physical and well being of the children yet in terms of school development plans there is no specific or detailed reference which is made regarding toilets and sanitation facilities, the focus is mainly on the classrooms and other access areas.

In five (5) schools, there were no urinals in the boys toilets and where a trough for this purpose existed, there was no running water to keep them clean all the time. This made the facilities unsafe and unfriendly to the users. In four (4) schools, toilet closets were found to be too small and much squeezed; passageways were narrow such that it was not possible for the learners to access them with ease.

In one (1) school, it was observed that, access to drinking water was confined to a tap situated in the toilet area. This was unhygienic to learners as indicated by Magdla (2006) that it is not desirable or acceptable for sources of drinking water to be located in toilet areas. Among the students who responded to this study, 120 (60%) felt that, the issue of toilets was not being given priority and respect by the school's administrators. The same sentiments were reflected during an interview with a District Quality Assurance and Standards Officer who commented that:

Toilets in some schools here lack sanitary facilities and equipments. They are not in the best state of repair, not serviceable and they are not inspected regularly. Where there are pit latrines, they are less than six meters deep and are not regularly disinfected. During rainy seasons, they flood hence making them unusable and a health hazard to students and the surrounding community. Some toilets are located very far and out of sight by the school administration, therefore some students are transforming toilet areas to smoking and bullying zones and other forms of undesirable behaviour. Even bathrooms have a reputation of unsafe locations, where illicit activities and bullying are common. This is because they are frequently located in isolated corners of buildings away from natural surveillance. Occasionally they are also near secondary entries providing opportunities for unobserved trespassers and easy exits.

It was observed that in some two (2) schools where flush toilets existed, toilet seats were inadequate and unclean; this was a real danger since students using them were crouching instead of sitting on them. This could compromise health of learners as stated by Glickman (2004) that the best position for emptying the bladder or bowels properly is to sit with support of the thighs and feet, bent slightly forward. Clark (2002), Squelch (2001) and Reid (2000) have shown that going to the toilet is more than just a physical reflex. The whole environment must be comfortable in order to relax and allow proper physical and psychological processes to take place.

The study established that in most schools, the required safety standards by the Ministry of Education had not been met. This was evidenced by lack of adequate toilets, inappropriate location of sanitation facilities, and poor maintenance of toilets.

### 4.3.7 Laboratories

**Table 4.11: Respondents' Responses on Safety Status of Schools' laboratories**

Items	Student				Teachers				Headteacher		DEOs		DQASOs	
	Yes		No		Yes		No		Yes	No	Yes	No	Yes	No
	F	%	F	%	F	%	F	%	F	F	F	F	F	F
Whether laboratories were adequate	50	25	150	75	10	25	30	75	5	10	1	2	1	2
Whether laboratories were adequately located	70	35	130	65	15	37.5	25	62.5	6	9	1	2	-	3
Whether laboratories were well equipped	30	15	170	85	5	25	35	87.5	3	12	-	3	-	3
Whether laboratories were safe	20	50	180	90	6	15	34	85	2	13	1	2	-	3

Table 4.11 shows that majority of the respondents, 150 (75%) students, 30 (75%) teachers, ten (10) headteachers and four (4) Education Officers indicated that schools' laboratories were not adequate. According to Lyons (2002) schools' laboratories are an expensive investment and are expected to last for many years. A poor location or design will impact on generation of students, teachers and technicians. Students felt that laboratories were few compared to the number of students using them. This interfered with comprehension of the subject content especially during practical lessons. This concurred with Reid (2000) who stated that a science department requires enough laboratories unless the curriculum is to be unduly

constrained. Squelch (2001) further stated that all science lessons need to be timetabled in laboratories but with consideration for cleaning and servicing schedules. Teachers stated that science laboratories were few and they were using one laboratory for all science subjects. This constrained the existing facilities allowing very little time for cleaning and preparation for the next lesson.

Overcrowding was observed during compulsory science subjects where one teacher was handling more than fifty students during a practical lesson. Headteachers said that science laboratories were few and they were small in size making them unsafe for the users during practical lessons. One District Education Officer commented that “shortage of laboratories discouraged most schools from offering all science subjects as required by the set curriculum”. A District Quality Assurance and Standards Officer noted that “inadequate and squeezed laboratories were major contributing factors to lack of safety and breakages of equipments during practical lessons”. Concerning adequacy of laboratory another District Quality Assurance and Standards Officer postulated that:

Some laboratories are too small to accommodate preparation and storage rooms yet these rooms are used to prepare equipments and materials for lessons as well as to store chemicals and other equipments safely and securely. These activities cannot be effectively undertaken in rooms that are too small, badly laid out, poorly furnished, or located randomly around a science laboratory. Sometimes teachers are left with no working space while handling a practical lesson exposing students to danger.

Responding to whether laboratories were appropriately located, 130 (65%) students, 25 (62.5%) teachers, nine (9) headteachers and five (5) Education Officers said no. Students and teachers felt that some laboratories were situated next to the roads and busy pedestrians' paths and there were no measures taken to reduce noise levels. This disrupted learning since most windows were also facing this direction. Headteachers stated that due to lack of proper planning especially in the old schools,

science laboratories were located in very unlikely places like between classes, next to libraries or even to administration blocks. This caused interference during practical lessons which required high level concentration. One District Education Officer commented that:

Some laboratories are inappropriately located because all users were not involved in planning. It is important to involve teachers, technicians and students. It is also important to avoid any one individual having his/her own way because highly innovative ideas will have a long working life

The researcher observed that some laboratories were not located on ground floor. This was learner unfriendly because most equipments were fragile and required to be moved a lot especially in cases where they were not stored in the same floor. This arrangement had not considered learners with special needs since ramps had not been provided to allow access to those on wheel chairs.

As shown in Table 4. 11. Overwhelming number of students, 170 (85%), teachers, 35 (87.5%), headteachers, twelve (12) and all (6) Education Officers indicated that schools' laboratories were not adequately equipped. All of them felt that laboratory stools and benches were few, inappropriate, of low quality and poorly maintained. This was unsafe for students who were using them while in stooping position for long periods of time. One District Education Officer commented that "Students experience difficulties regarding where to place their personal items like books and coats while in the laboratory because cupboards and shelves are not provided in laboratories". A District Quality Assurance and Standards Officer said that:

Other than being few, some laboratory stools are not of the correct height. Shorter students are forced to use tall stools with no footrest. This other than being unsafe is very uncomfortable for the learners. Some benches and tables also pose a similar challenge.

The researcher observed that, during practical lessons other mostly used equipments such as flasks, test tubes, puppets and beaker were inadequate. This caused a lot of spillages because they were shared among many students. Breakages and minor injuries were also noticed. Sinks and taps were observed to be few, small in size and inappropriately located to the proximity of users. This necessitated a lot of movements, spillage and littering of the laboratories in most of the schools. This situation could increase chances of injuries though slips and falls.

A large number of respondents, 180 (90%) students, 35 (85%), thirteen (13) headteachers and five (5) Education Officers indicated that laboratories were not safe. According to Bruening, Hoover, and Radhakrishna (1991), of all the jobs that a science teacher performs, safety of students is the most important. What and how students learn must be secondary to the physical safety of both students and teachers in a science laboratory. Gliem and Hard (1998) further stated that not only is safety an important consideration for educators but a moral professional and legal obligation as well. The primary responsibility for providing laboratory safety instruction and a safe learning environment rests within the teacher

All (15) headteachers who responded to the study indicated that teachers instruct students on how to use equipments in a science laboratory and demonstrate their usage. However, a few (5) of them reported that some teachers were leaving students unsupervised while using dangerous equipments or chemicals in a science laboratory. Out of 40 teachers who took part in the study, 35(87.5%) were not aware of the recommended laboratory safety guidelines, however, 38 (95%) considered knowledge of these regulations as very important. Overwhelming number of teachers, 37 (92.5%) who participated in the study considered their laboratory technicians not qualified and careless in the science laboratories. However, 20% of them were leaving

students under their care. This was a dangerous practice that could endanger lives of the students. One of the District Education Officer while commenting on laboratory safety had this to say:

Providing a safe learning environment in a science laboratory for public schools is a problem here. This is because, teachers and school administrators do not adhere to the recommended safety practices of providing students with safety and emergency equipments to the extent warranted by the potential hazards present in science laboratories. Most science laboratories lack equipments such as; fire extinguishers, exhaust systems, first aid kits, exit signs, posted laboratory safety regulations, safety zones, safety cans for flammable liquids and panic buttons among others. Such laboratories are unsafe for students.

Safety problems associated with ventilation mentioned by teachers and students included availability of smoke and dust and inadequate air circulation in the laboratories. Thirty (75%) teachers and 110(55%) students indicated that, sources of hazards in school laboratory included improper techniques of using equipments, inadequate laboratory facilities, improper storage of equipment and poor management and organization of laboratory facilities. Similarly, 12 (80%) headteachers felt that basic causes of accidents in laboratories included extensive use of glass wares, non exposure of science teachers to laboratory safety, hastening activities during practical and in active supervision of students during laboratory activities.

It was observed that safety devices that lacked in most science laboratories included eye protective shield, spectacles, and goggles, safety screen and fire extinguishers. Regarding safety of science laboratories, one District Quality Assurance and Standards Officer commented that:

Quite a number of schools' buildings in this district are in need of reconstruction or renovation. This is in response to growing enrolments and the deterioration of an older generation of buildings. You find some science laboratories with some flaws such as leaky roofs, a faulty electrical system or dysfunctional plumbing



It was established that all principals (15) and 35 (87.5%) teachers agreed that most schools' laboratories did not have adequate space for teachers' planning, preparation of investigations, and secure storage of laboratory supplies as well as space for students' and teachers' activities. Similar view was expressed by one District Education officer who stated that:

Due to increase in students' enrolment brought about by free day secondary education and lack of enough teachers to match students' population, class sizes have increased over and above the required teacher student ratio of 1:35. In a science laboratory, it may be extremely difficult for teachers handling classes of forty students and above to perform their supervisory role and maintain safety during laboratory experiences. I feel this class size is potentially unsafe.

The study established that in most schools, Ministry of Education guidelines regarding laboratory safety had not been fully implemented. This was evidenced by inadequate, squeezed, inappropriately located and ill equipped laboratories. Lack of necessary safety precautions such as availability of wide windows and doors without grills opening outwards with ease, serviceable and suitably located fire extinguishers, safety rules posted in the laboratory. Inadequate or lack of appropriate furniture clearly marked emergency exits and, inadequate light and ventilation were also witnessed.

### 4.3.8 Administration Block

**Table 4.12: Respondents' responses on Safety Status of Schools' Administration Block**

Items	Student				Teachers				Headteacher		DEOs		DQASOs	
	Yes		No		Yes		No		Yes	No	Yes	No	Yes	No
	F	%	F	%	F	%	F	%	F	F	F	F	F	F
Whether there was an administration block	160	80	40	20	35	87.5	5	12.5	10	5	3	-	2	1
Whether administration block was appropriately located	90	45	110	55	15	37.5	25	62.5	6	9	1	2	-	3
Whether administration offices were well equipped	70	35	130	65	10	25	30	75	5	10	1	2	-	3
Whether administration offices Were safe	100	50	100	50	12	38	28	70	3	12	-	3	-	3

Table 4.12 shows that, most students, 160 (80%) teachers, 35 (87.5%), headteachers, ten (10) and five (5) Education Officers indicated that there was an administration block which was complete, clean and well maintained in various schools in the area under study. This concurred with Carter (2002) who pointed out that the administration block is a very important aspect of a school plant since it is the first station of call for all visitors to the school. Squelch (2001) further states that an ideal school administration should put into consideration the prevailing security situation of the school environment and the needs of the school. However, the

researcher observed that, in three (3) schools, there was no administration block, instead there were rooms among the tuition block that were being used as different offices while in two (2) schools, construction of administration block was on-going while semi- permanent structures were being used as offices. This could compromise safety of learners since administrators were not comfortable to carry out their supervision duties as required. Stressing the need of a school administration block, one District Education Officer commented that:

It is prudent for schools to have administration blocks since they carry offices of key school personnel such as the headteachers, deputy headteachers, senior teachers, and heads of departments, bursar and other supporting secretarial staff. They also house reception and staffroom. If all these key officers are provided with conducive and safe environment, employees will be able to take care of the learners and ensure their safety.

One District Quality Assurance and Standards Officer felt that, most young schools were still constructing administration blocks among other tuition facilities. Meanwhile they were using other temporary structures as offices. These structures were squeezed, poorly furnished and offered little or no security to essential office materials and equipments. On the same issue, one District Education Officer said that:

Continuous construction of new building and upgrading of existing ones disrupts learning since it is noisy, dirty and unsafe because learners and other people within such compounds are exposed to dangers of falling objects, nails, debris of iron sheets, barbed wires, open holes, sand and ballast among others.

It is notable from Table 4.12 that majority of students, 110 (55%), teachers, 25 (62.5%), headteachers, nine (9) and Education Officers, five (5) felt that administration blocks were not appropriately located. According to students some visitors were accessing them in classrooms and in other parts of the school compound without being noticed by the school administrators due to poor location of offices. This could compromise students' safety since such visitors could sneak harmful substances and equipments into school compounds. Magdla (2006) noted that main

office staff and administrators are the most important players when it comes to school safety hence the need to position them strategically to perform this duty. Donmez and Guven (2002) further stated that, office is the screening tool in most schools from where visitors are expected to be evaluated and directed, bar undesirables, placate the disgruntled, and generally solve problems.

Some teachers indicated that location of administration block was not appropriate since offices were situated close to busy roads and pathways. Exposure to high noise levels was disrupting them while doing their work. One District Quality Assurance and Standards Officer stated that:

Teachers require a quiet and peaceful environment in order to do their work which requires a lot of concentration. Disturbing teachers when they are preparing schemes of work, lesson plans, record of work, progress records, teaching aids, setting and marking examination can be disastrous to teaching learning process.

Head teachers maintained that some schools' administration blocks were not appropriately located since some were hidden deep within school compound. This was common in some old schools where various structures were allocated various uses that they were not designed for. Increased enrolment also forced head teachers to give up administration blocks to be used as tuition facilities as they relocated to smaller facilities that were inappropriate as offices.

The researcher observed that, some schools' administration blocks were not appropriately positioned to allow full view of those entering the school compound for proper identification and direction. Most schools lacked signage, the available ones lacked maps, arrows, or other directions, and this made office location unclear. When asked to comment on the office location in schools, one District Education Officer said that:

Some offices are inappropriately located. There are no signs to indicate where to get the offices and other facilities. Therefore, visitors can be instructed to check in at the office, but with inadequate guidance, this can be an invitation for visitors to prowl school compounds while ostensibly looking for a destination. Even if offices are located at the main entry, it may lack appropriately located windows eliminating natural surveillance. The assumption that school staff can deal with a threat that suddenly appears at the front desk is unrealistic.

According to Kennedy (2003), an administration building is commonly used by the public, teachers and students; therefore, it should be near the entrance for easy accessibility and security of the school plant. Responding to whether administration blocks were well equipped, 130 (65%), 30 (75%) teachers, ten (100 head teachers and five (5) Education Officers said they were no adequate equipments in schools' offices. Glickman, (2004) noted that some school management failed to provide their staff with necessary equipments to perform their duties as required. Students felt that some schools' offices were ill equipped since teachers did not have space and chairs in their offices to use while assisting them. Some felt discouraged to seek any assistance from their teachers outside their classrooms. Teachers stated that, some schools' offices lacked necessary items like chairs, tables, cupboards and lockers. To support this view one District Education Officer commented that:

In some schools, teachers are not provided with enough chairs and tables. This makes their work very difficult. In some cases, their tables do not have drawers, neither are they provided with cupboards to keep their personal items safe. Some of the lady teachers opt to carry their handbags to class to ensure their safety. With this kind of working conditions, teacher retention becomes a problem and most such teachers are always in my office seeking for transfers to better schools.

The researcher observed that, schools' offices lacked essential facilities like computers to enable teachers to access internet as they prepared their lessons. Lack of communication facilities like radios and television sets in the staff rooms or other common places impacted negatively on teaching and learning process. Some teachers

left school compound to access information elsewhere leaving learners unattended during breaks.

On whether schools' administration blocks were safe, 150 (75%) students, 28 (70%) teachers, twelve (12) headteachers and all (6) Education Officers said no. Crowe (2002) while stressing on the importance of a safe and secure school administration block stated that most of schools' activities are coordinated from the schools' administration block, essential documents and property is kept in these offices. It is therefore important to ensure school offices are safe by taking all necessary precautions including using burglar proof doors.

Students, teachers and headteachers indicated that some schools' administration blocks were not safe since they were situated at vulnerable locations such as close to busy roads and pathways. This could allow easy access to strangers with ill motive. They stated that the materials used to construct some offices were not secure enough since some of them were made of iron sheets where thieves could easily gain access.

The researcher observed that, where offices were located near exterior doorways, they had many alternative access points where intruders could be able to gain entry through secondary doors or even through windows. This was echoed by a District Education Officer during the interview, he said that "some schools' offices are not safe; doors are sometimes left unlocked even when no one is inside. Some offices have more than one door and windows are low and wide enough to be used by anyone with bad motives"

The study established that majority of the schools' administration blocks had not fully implemented Ministry of Education safety guidelines. This was evidenced by

lack of office space in some schools, improper location of offices to allow full view of those entering school premises. Inadequate equipments to allow efficient and effective performance and inadequate safety precautions such as fire extinguishers, alarm systems, adequate light and ventilation among others were also noted.

#### 4.3.9 Perimeter Fence

**Table 4.13: Respondents' Responses on Safety Status of Schools' Perimeter Fence**

Items	Student		Teachers				Headteacher		DEOs		DQASOs			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
	F	%	F	%	F	%	F	F	F	F	F	F		
Whether there was a perimeter fence	90	45	110	55	22	55	18	45	13	2	3	-	2	1
Whether the perimeter fence was of the required nature	80	40	120	60	15	37.5	25	62.5	5	8	-	3	-	3
Whether the perimeter fence offered required security	20	10	180	90	8	20	32	80	3	10	-	3	-	3

Table 4.13 shows that a large number of respondents, 110 (55%) students, 22 (55%), thirteen (13) teachers and five (5) Education officers said that there were perimeter fences in their schools. This was in line with Glickman (2004) who postulated that school security is a multi- faceted subject in that, as well as parents

expecting their children to be safe from intruders, schools want to prevent truancy by controlling when and where children can leave. In addition, the personal safety of staff and visitors is of considerable concern to education managers. Therefore fencing of the school compound is paramount to all education administrators. According to one District Education Officer:

With a cleaner, protected school yard, schools can be establish and maintain gardens for students to learn and practice agriculture. Schools' administrators will also prevent trespassing livestock that spend their time soiling the school compound and destroying plants.

All (15) headteachers indicated that since schools contain valuables and portable property that is attractive to thieves, and cases of arson increasing in schools, availability of strong and quality fence is beneficial. The same views were expressed by a District Quality Assurance & Standards office who noted that:

It is very important for all schools to have complete perimeter fences because, they mark the school boundaries, deters casual trespassers and or determined intruders, increases the time it takes for determined intruders to breach the security and prevents unauthorized removal of properties

The responses from those who did not have a perimeter fence indicated lack of adequate funds to have a fence in place, lack of support from the government, parents and other stakeholders and school administration putting a lot of emphasis on academic issues at the expense of school security. This concurred with the findings of a study conducted by Simatwa (2010) which recommended that school management should emphasize on school safety issues as much as they did on academic performance.

Responding to whether school fences were of good quality, 120 (60%) students, 25 (62.5%) teachers, eight (8) head teachers and all (6) Education Officers said no. Students and teachers indicated that some school fences were made of



overgrown shrubs, off cuts, spiked wire and iron sheets. These materials as observed by the researcher were a security threat to the school community since they could injure students easily. One District Quality Assurance and Standards Officer commented that:

Due to shortage of finance in our schools, headteachers find it challenging to put up quality fences. They use substandard materials which increase risk instead of offering the sought for security. Materials like overgrown shrubs could breed harmful creatures like snakes and rats which can cause death and property destruction respectively. Old iron sheets and spiked wires can injure students.

Asked whether schools' perimeter fences provided the required security, majority of the students, 180 (90%), teachers, 32 (80%), headteachers, ten (10) and all (6) Education Officers said no. Some students indicated that it was possible for them to sneak out of the school since available fences were incomplete, had openings or too low and they could easily jump over. Headteachers stated that, students were able to develop rapport with school security personnel to allow them to leave school illegally.

As for the respondents who said that schools' perimeter fences were providing required security, they explained that school perimeter fence was able to bar unnecessary movement, strangers and intruders, prevent animals such as cattle, dogs and donkeys from intrusion, and ensure general safety of the students. One District Education Officer commented that:

When perimeter fences are built in schools, we see a remarkable decline in security incidences such as vandalism, break-ins and land grabbing. A school with a nice fence other than making them clean and green so as to attract more students also affects neighbourhood reputation positively.

The researcher observed that, in three schools, there were no proper gates though some perimeter fences existed. In five schools, gates existed though the fence was either lacking or incomplete. According to Chumba (2006), gates are intended to

control access, keep intruders out and prevent students from leaving during school hours. She further states that, whenever there is a perimeter fence, there needs to be at least one access point, therefore there is need to ensure that the design and specification of the gates provide the same level of security as the fencing. One District Officer during the interview asserted that:

Some gates in our schools are vulnerable in comparison with the remainder of the perimeter fence. Gates are left unattended by security personnel; they are also inappropriately located where they are not clearly visible. I am sorry to say that some are in bad state of repair since hinges and other mechanical components are not adequately maintained. Some school gates are too small and put at an angle that bars effective access by vehicles. Other entrances are uneven making them very unfriendly to the users.

Similar views were expressed by a District Quality Assurance and Standards officer who said that:

It is assumed that perimeter fences provide security in our schools. Unfortunately, some of them have wide gaps that are left unattended, trees and bushes are left to grow along the fences making it easier for intruders to climb over, rubbish and other flammable items are left in close proximity to the fence making it very unsafe. You know that a fence is as good as its installation, poorly installed fences detracts from the appearance of the premises, and everybody knows how first impressions are. An invited visitor to the school may see a poor fence as a reflection of the school's own standards, and a potential intruder may look upon poorly installed fence as a sign that the school pays little attention to security. Furthermore, poorly installed fence may be easier to breach in some cases. It will be more likely to need repairs and maintenance earlier than would otherwise be necessary.

The study established that most schools in the region under study had not fully complied with the Ministry of Education safety guidelines regarding fencing of the school compounds. This was evidenced by the fact that most schools had not erected fences hence exposing schools to vandals and other security threats. Such schools could be easy targets to land grabbers and street people who were looking for open places to establish their resting places. Presence of incomplete fences, fencing of small isolated area, use of substandard materials in fences construction and lack of

secure and stable gates all pointed out to lapse in safety guidelines implementation in schools.

#### 4.3.10 Abandoned Buildings

**Table 4.14: Respondents' responses on Safety Status of Schools' Abandoned Buildings**

Items	Student				Teachers				Headteacher		DEOs		DQASOs	
	Yes		No		Yes		No		Yes	No	Yes	No	Yes	No
	F	%	F	%	F	%	F	%	F	F	F	F	F	F
Whether there were Abandoned buildings in schools	90	45	110	55	25	62.5	15	37.5	6	9	2	1	2	1
Whether they have been abandoned for more than three year	70	77.7	20	22.2	22	88	3	12	5	1	2	-	2	-
Whether abandoned buildings were unsafe	80	88.8	10	11.1	23	92	2	8	6	-	2	-	2	-

Table 4.14 shows that 25 (62.5%) teachers, six (6) headteachers and four (4) Education Officers stated that there were abandoned buildings in the schools under study. This concurred with the findings in an earlier study by Magdla (2006) which showed that most schools, especially those located at informal settlement were plagued by decaying buildings that threatened health, safety and learning opportunities of the students. However less number of students, 90 (45%) felt the

same. This could be due to the fact that, some of these buildings were still being used by students irrespective of their risky status. One District Quality Assurance and Standards Officer who appeared shocked by the presence of abandoned buildings in schools shook his head and remarked that:

It is very disturbing to witness some abandoned buildings in some of our schools. Some of them are situated at the far end of the school grounds. They pose great risk to learners because criminals could use them as hide outs. I also think they are a health risk to students because they are covered with overgrown vegetation that is not friendly to those who come into direct contact with them.

Headteachers and teachers noted that existence of such buildings was as a result of poor planning by the school management who were starting many projects at the same time leading to stalling of some of them for many years. They further reported that due to aging of some schools' building and lack of facility maintenance and renovation culture, most schools' structures were becoming obsolete hence presence of abandoned buildings in schools' premises. This agreed with the views raised by one District Education Officer who remarked that "existence of abandoned and stalled buildings was due to poor planning and failure to involve all the stakeholders at the planning stage of schools' projects"

Majority of the respondents, who said there were abandoned buildings in their schools; 70 (77.7%) students, 22 (88%), five (5) headteachers and four (4) Education Officers indicated that most of these buildings had been abandoned for more than five years. This was in line with Reid (2000) who asserted that when a school project stalls, it becomes hard to proceed with it since available funds are normally directed to other urgent innovations. Headteachers, teachers and students said that it was very unlikely for these buildings to be put in use again due to architectural flaws or to demolish them due to financial implications. This view was supported by one District

Quality Assurance and Standards Officer who explained that “some of these buildings are as old as thirty years and no one thinks of the danger posed by such buildings”

As indicated in Table 4.9, most respondents, 80 (88.8%) students, 20 (80%) teachers, six (6) headteachers and four (4) Education Officers felt that abandoned buildings in schools were unsafe. This was in support of Carter (2002) who stated that abandoned buildings seem intriguing and mysterious but they should be avoided because of numerous dangers that can be found within them. Headteachers, teachers and students noted that abandoned buildings were unsafe because they were old and had been neglected hence they were often falling apart. However, those who said such buildings were safe indicated that school administration had enforced strict disciplinary action to those found near such buildings. Expressing how unsafe abandoned buildings were, one District Quality Assurance and Standards Officer had this to say:

Many students are unaware of the dangers that exist in these buildings and are drawn to them out of curiosity. Exploring such buildings can be dangerous because sections of the buildings such as structural beams, pieces of the ceilings, walls, floors or staircases can all collapse on them or under them. Such happening can lead to serious injury or even death.

He paused and continued:

Some of these buildings still have electricity turned on, and exposed wiring which can lead to electrocution or shocks. There is also danger of falling off unguarded and or unstable staircases. More to that, some abandoned buildings contain abandoned equipment and supplies. These buildings often have rusty metals inside, broken glass from old windows and rusty nails on exposed or fallen beams.

The researcher observed that some abandoned buildings had been left completely unattended. They were engulfed in bushes and long grass, under such situation; they were likely to have many dangerous animals such as poisonous snakes and spiders. Stray dogs and cats were loitering around these buildings looking for

food and shelter. These animals have the ability to carry rabies and other diseases which could jeopardize lives of those staying in the school compounds.

Stressing the need of demolishing abandoned buildings, one District Education Officer remarked that:

It is the high time all school managers and government should rise and demolish all abandoned buildings existing in schools or find a way of making them safe. As for now, these buildings are often sites of illegal activities. Drug dealers and users are sometimes attracted to abandoned buildings to sell or use drugs without being observed by anyone.

As he expressed these sentiments, he ushered in the District Quality Assurance and Standards Officer whom the researcher had interviewed earlier. The DEO requested her to respond to the issue of abandoned buildings in schools. She laughed a bit and said this:

I forgot to mention that organised gangs intending to recruit students often use abandoned buildings as a meeting place. Sometimes students hide stolen items in such buildings waiting to sell them later. Vagrants sometimes use abandoned buildings and other vulnerable places within the school compound as shelter during bad weather or as an alternative to sleeping on the street. Sometimes we are called from the office to evacuate them from schools after they become adamant. Such happenings are very dangerous and unsafe to the entire school community.

After a brief silence, she commented that “abandoned buildings are sometimes used for sexual activities as well because the buildings are isolated and private”.

These concerns were in line with Squelch (2001) who stated that abandoned buildings in schools are predictable locations for misbehaviour because they are far from the eyes of the schools’ administrators.

Regarding safety status of physical infrastructure in public secondary schools in Nairobi West Region, most schools had not fully implemented Ministry of Education safety guidelines on physical infrastructure. Majority of schools’ physical infrastructure such as; kitchens, dining halls, classrooms, libraries, sanitation

facilities, laboratories and administration blocks had doors and windows fitted with grills, were not wide enough to allow for easy passage and were not opening outward. This could bar any meaningful evacuation if a disaster struck. Some buildings were poorly maintained and not renovated as evidenced by peeling and faded paints, loose ceilings, exposed electrical wires among others. In some schools, dormitories lacked emergency exits, fire extinguishers and other safety equipments. Other unsafe situations witnessed included; overcrowding, inappropriate furniture and disability unfriendly buildings among others. However, few schools had ensured safety of physical infrastructure to support teaching and learning process as indicated by Squelch (2001) that physical infrastructure should be appropriate, adequate and properly located, devoid of any risks to users or those around them.

#### **4.4 Research question 2: Factors Affecting Implementation of MOE Safety Guidelines on Physical Infrastructure**

The Ministry of Education Safety Standards Manual for schools in Kenya provides a framework to achieve health and safety standards within the school. The school management is expected to designate specific health and safety coordination roles that commensurate to the MOE's safety guidelines. This study was to assess the implementation of MOE safety guidelines on physical infrastructure in public secondary schools in Nairobi West region, Kenya. Therefore, in one of the research questions, the study sought responses on the factors affecting implementation of safety guidelines in public secondary schools in the region under study. The responses were as discussed.

#### 4.4.1 Knowledge of safety standards manual for schools in Kenya

**Table 4.15: Respondents' Responses on how Knowledge of Safety Guidelines Affects Implementation**

Item	Student		Teacher				Headteacher		DEOs		DQASOs			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
	F	%	F	%	F	%	F	F	F	F	F	F		
Whether safety manual was available in schools	30	15	170	85	10	25	30	75	12	3	1	2	1	2
Whether it was easily accessible	10	5	190	95	5	12.5	35	87.5	5	10	-	3	-	3
Whether they read it	12	6	188	94	10	25	30	75	9	6	1	2	1	2
Whether they discussed it	10	5	190	95	16	40	24	60	10	5	2	1	2	1
Whether they practiced it	50	25	150	75	12	30	28	70	10	5	1	2	-	3

Table 4.15 Indicates that overwhelming number of headteachers, twelve (12) and all (6) Education officers stated that safety standards manuals for school were available in their schools. This was in line with Squelch (2001) who postulated that school administrators are bestowed with important duties of educating children in a safe environment. However, most teachers, 30 (75%) and students, 170 (85%) indicated that safety manuals were not available in their schools. This sharp



contradiction could be due to the fact that some headteachers had not availed the copies of safety standards manuals to teachers and students. Asked whether safety standards manual for schools was accessible, majority of the students, 190 (95%), teachers, 35 (87.5%) and four (4) Education Officers said no. This could point to inadequacies of the school administration in availing safety related information to those concerned. One District Quality Assurance and Standards Officer was asked whether safety standards manual for schools were available in schools. He turned around and asked me “you are asking me whether this (holding a copy of the safety manual) is available in our schools?” I said “yes”. He placed it on the table and pointing at a cabinet right at the corner of his office, he said this:

I want to assure you that copies of safety standards manuals are well distributed to our schools. There are more in that cabinet and any time a headteacher comes here we ask them whether they have copies in their schools. If they say no, we normally give them copies.

After a short silence, he continued, “Irrespective of the fact that we give out these copies to our schools, anyone who visits the schools including our officers report not finding copies in schools. I wonder where the copies disappear to”.

The researcher observed that, even in schools where safety manuals were available, they were kept in the principals’ office. There were none in schools’ libraries and other strategic places like reception/ waiting area, staffrooms and notice boards. This could hamper sensitization of safety guidelines that should be implemented in schools. On the same issue, One District Education commented:

The school headteacher is instrumental in enhancing safety guidelines implementation in schools; therefore it is their role to ensure that teachers, students and other staff are aware of the Ministry of Education safety guidelines. We ask them during assessments exercise to place this policy documents in the libraries, staffrooms and extract some information from them and pin on the notice board to ensure everyone in the school is aware of these guidelines; however, this does not happen as expected.

According to Table 4.15, only 12 (6%) teachers, and 10 (25%) had read safety manual. Majority of them, students, 188 (94%) and teachers, 30 (75%) had never read it. This could impact negatively on the implementation of safety guidelines in schools. This is coherent with Sheth (1999) who observed that teachers have little knowledge pertaining school safety guidelines. Sheth (1999) noted that it is important for teachers and students to have appropriate and adequate knowledge regarding Ministry of Education safety guidelines since they are essential in ensuring their safety within school premises.

On knowledge of safety guidelines in schools, another District Quality Assurance and Standards Officer stood up during the interview and asked me “do you see that door?” pointing at a certain door in the opposite building. I also stood up to ensure I was seeing it, and then I said “yes”. Then he explained:

That building is used as an office and as you have just seen, that door is the only entrance to that building hosting quite a number of offices. The door is very narrow and it opens inwards. The same scenario happens in our schools and when you question the practice, they say they are not aware of the safety measures to put in place. One year ago there was furnace in one of the schools in this district. When we visited the school we found all windows and doors had grills, they were too narrow and opened inwards. Emergency exits were also missing. The headteacher told us he was not aware of the safety guidelines. You see how dangerous it could have been if students were sleeping in that dorm? Thanks God they were in for the night preps when that happened.

Six (6) head teachers indicated that, they had never read the entire manual citing their many administrative roles. Replying to whether they had availed safety manual to students, eight of them said no since they thought it was meant for the school administrators. While a good number of them (7) had not made this document available to their teachers, majority of them (12) had distributed a copy to their deputies because they were delegating responsibilities to them.

Lack of or inadequate information regarding Ministry of Education safety guidelines, not availing copies to relevant stakeholders and failure to read the manual to comprehensively get what it requires could have prevented schools in the area under study to fully implemented safety guidelines as expected.

#### 4.4.2 Training

**Table 4.16: Respondents' Responses on how Training Affects Implementation of Safety Guidelines in Schools**

Item	Student		Teacher				Headteacher		DEOs		DQASOs			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
	F	%	F	%	F	%	F	F	F	F	F	F		
Whether there were trainings on safety	50	25	150	75	9	22.5	31	77.5	4	11	1	2	-	3
Whether trainings are on yearly basis	6	12	44	56	1	11.1	8	88.8	-	4	-	2	-	3
Whether these trainings equip them with the right knowledge on safety	10	20	40	80	2	22.2	7	1	3	-	-	-	-	-

As noted in Table 4. 16 Trainings on implementation of safety guidelines in schools was limited, 150 (75%) students, 31(77.5%) teachers, eleven (11) head teachers and five (5) Education officers said there were no safety trainings in schools. This could hinder effective implementation of safety guidelines in schools. However, the few who said such trainings were available indicated that, they were not organized

regularly. Responding to whether the few available safety trainings were offering the right content, majority of the respondents, 40 (80%) students, 7 (77.7%) and three (3) head teachers stated that the safety curriculum was poorly organized and failed to address the real safety concerns in a school situations.

One District Education Officer stated that “most of the safety equipments required according to safety trainings are not available in schools to start with, so what is the need of such trainings?” In connection to importance of trainings, Hallinger and Snidvongs (2008) states that within the complex operation of schools in the 21<sup>st</sup> Century, headteachers, teachers and other stakeholders play pivotal role in bringing about school improvement and effectiveness. Increased training of schools personnel is based on the fact that teachers and head teachers can make a difference in both the effectiveness and efficiency of schooling.

Consequently, there is need therefore to ensure that head teachers, teachers and other stakeholders play their roles effectively by providing them with knowledge and skills to enable them implement government policies in schools as required. One District Education Officer when responding to whether there were trainings on schools safety appeared unhappy when he asked me that “are you asking about safety trainings?” he laughed a bit and made this remark:

I don't think there has been any training specifically on safety for the last two years I have been in this office, on academic performance, yes. This trend I think is risky because, as far as I am concerned having a safe school is not a one-time event. It is on-going, broad based, systematic, and comprehensive process. Schools should schedule annual safety training for all stakeholders; no one should be exempted from this training for any reason.

These remarks concurred with sentiments that had been said by another District Education Officer that:

It is not easy to find the right balance between creating a safe and secure school, and maintaining a welcoming and nurturing environment. Successful administrators choose creative ways to address this challenge. This includes mandatory training that is specific to individual duties that is conducted yearly and training students continuously to create awareness and reduce risks of injury.

On whether principals were given relevant and adequate training on how to implement safety policies in their school, majority of them indicated that most short courses offered by Kenya Education Staff Institute (KESI) during April and August holidays focuses mainly on administrative duties and not on the implementation of government policies. This concurs with Olembo, Wanga and Karagu (1992) who argued that the duration offered by KESI is so short to satisfy the requirements for the complex functions of school headship. This view was reflected by one District Education Officer who said that:

School headship vested in the hands of the principals is so demanding in so many areas such that if principals have to be in serviced properly, then it should be done over some time. This I believe will enable them to understand the complexity of issues they are supposed to deal with and how to go about them

On the same issue, one District Quality Assurance and Standards officer commented that:

In as much as principals appreciate relevance of KESI courses, they still feel that the programme should be regular and they should be consulted on courses they wish to be covered since being on the ground, they are better placed to identify areas of need to be addressed during training for school leadership

The study established that all education officers who participated in the study had been exposed to various trainings ranging from in service courses, seminars and workshops among others. Most (90%) of these trainings were basically on management which included; senior management courses and strategic leadership among others. About 10% of these trainings were on emerging issues such as

HIV/AIDS, drug and substance abuse, dropout rates among others. While these trainings touched on management skills, there was inadequate or lack of training focusing on how to implement Ministry of Education safety guidelines in schools. This was expressed by one District Quality Assurance and Standards officer who remarked that:

As educational managers in the districts who direct and lead all educational matters, our job profile includes mobilizing materials and human resources, ensuring government policies implementation and enforcing ministerial laws and regulations. Therefore, we need a lot of training to enable us to execute these roles effectively and efficiently

All (6) Education officers who were interviewed stated that efforts to implement Ministry of Education safety guidelines sometimes fail because those involved have not been trained on their roles. They felt that District Education Officers with other education players should ensure school communities grasp implementation of government policies in learning institutions.

Fifty (25%) Students stated that school administration had ever explained to them their role in ensuring safety of physical facilities in their schools. The fact that majority of the students, 150 (75%) had not been exposed to safety guidelines could increase safety threats in schools. This was supported by Mbamba (1992) who noted that many safety policies and programs are inadequately addressed in schools due to lack of administrative organizations and financial means to enable their implementation. Thus, students remain ignorant about school safety guidelines all due to lack of commitment by school administration to communicate to them.

These findings concurred with the findings of an earlier study by Kipngeno and Wambua (2009) on the safety awareness and preparedness in secondary schools in Turkana District. They found out that safety for students and staff from hazards that

can be created by unsafe conditions, behaviour, disasters or emergencies in Kenya schools could not be guaranteed. The findings further showed that there were no training nor awareness programs of school safety needs in Turkana District; teachers and students were poorly trained to respond to fire outbreak and destructive violence.

Earlier study by Mbugua and Sang (2011) pointed that schools in Kisii County faced a number of security challenges like strikes, arson, theft and fighting among other emergencies but head teachers appeared not to know how to go about such emergencies. This was attributed to lack of safety training handling emergencies.

The findings indicated that, there was no adequate safety training targeting all stakeholders in schools, the few available ones were irregular and failed to provide required information as per the status of the schools depending on the safety gadgets they could afford.

### 4.4.3 Resources

**Table 4.17: Respondent' responses on how resources affected implementation of safety guidelines in schools**

Item	Student		Teacher				Headteacher		DEOs		DQASOs			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
	F	%	F	%	F	%	F	F	F	F	F	F		
Whether there was a specific budget for safety implementation	20	10	180	90	3	7.5	37	92.5	1	14	-	3	-	3
Was there adequate time to address safety in issues in schools	30	15	170	85	5	12.5	35	92.5	2	13	1	2	-	3
Was there adequate staff to deal with safety issues in schools	50	25	150	75	2	5	38	95	3	11	-	3	-	3
Whether there was there transport to ensure safety Implementation in schools	40	20	160	80	6	15	34	85	5	10	-	3	-	3

According to Table 4.17, majority of the respondents, 180 (90%) students, 37 (92.5%) teachers, fourteen (14) headteachers and all (6) Education Officers indicated that there was no specific budget for safety guidelines implementation in schools.

This affected safety guidelines implementation which needed a lot of financial commitment. Headteachers further stated that Free Day Secondary School fund was



too little for all school's safety implementation needs. They felt that lack of funds hampered effective implementation of safety guideline in schools. Responding to whether funds were available for safety guidelines implementation in schools, one District Education Officer shook her head and asked me "do you want to know why implementation of safety guidelines fails in schools?" I said yes then she continued:

Implementation of Ministry of Education safety guidelines in schools fail because the issue is poorly resourced. The inadequacy of resources for District Education Officers prevents us from properly performing our roles. We require time, human, funds and other resources to properly execute our responsibilities. The scarcity of any of these resources is a barrier to effective performance of our roles. Headteachers are not spared either, the vote head for repair and maintenance availed in their vote heads is barely enough to address even a single need of school safety.

During an interview with one District Quality Assurance and Standards Officer, it was evident that availability of funds enables effective performance by Education officers, headteachers, teachers and other stakeholders during the process of safety guidelines implementation while lack of funds impact negatively on safety guidelines implementation process. He stated that "Change oriented Education officers and school administrators must mobilize adequate resources for their schools to ensure safety of these institutions". This concurs with Ziva (2002) who suggests that successful safety policy implementation must be budgeted for in order to purchase all the necessary resources in advance. Supporting similar views, Okumbe (1999) states that adequate supply of resources enables effective safety policy implementation in schools. This is because implementation plans are aligned to the resources available for the implementation process.

Time shortage was cited by most respondents as an impediment to safety guidelines implementation in schools., 150 (75%) students, 38 (95%) teachers, eleven (11) headteachers and all (6) Education Officers stated that school calendar was

overloaded with very many activities and the obligation for them to complete a wide syllabus on time was leaving them with no time to address other issues. This was in line with what Drejer (2002) postulates that schools are not given enough time to learn and adjust to their roles in the implementation of safety policies, this result in implementation problems in schools. Asked to comment on time available for safety guidelines implementation, one District Education officer reached out for a prize giving booklet in one of the schools and told me “madam, look at this clearly and tell me whether there is any reward for adherence to safety in such a schools” I looked at it and could not see such an item. Then he told me “I have this to say”:

Due to a lot of emphasis given to academic work in schools, and the fact that success of any school is basically measured by academic mean score of the students in a particular school, there is no time for head-teachers, school managers, teachers and students to discuss on how best to implement safety guidelines in schools

Similar concerns are raised by Hord, (1995), who asserts that when leaders provide time for staff to deal with implementation issues and concerns, they strike a chord of support with staff. This follows that schools need to have time for staff development programmes and other activities related to safety policy implementation.

Out of the six (6) Education officers who participated in the study, five (5) of them felt that they were always overloaded with curriculum innovations, such many duties at the same time barred them from focusing on the implementation of safety policies in schools because their efforts were directed towards many ends. This was in line with Mapfumo (1999) who asserted that Education Officers are usually burdened with a lot of responsibilities such that all of them are left ‘half baked’ by the end of the day. Fullan (1991) further asserts that too many responsibilities from the government disrupt District Educations officers’ efforts to successfully implement any one of them.

Staff shortage was another issue affecting effective implementation of safety guidelines in schools. Most students, 150 (25%), teachers, 38 (95%), head teachers, eleven (11) and all (6) Education officers said that there was no adequate staff to enable proper implementation of safety guidelines in schools. Few teachers available were sometimes unable to cope with large numbers of students especially during practical lessons hence exposing them to risky situations. It was also hard to supervise huge students' population in dormitories, classrooms and other parts of the school to ensure their safety due to inadequate staff in schools.

Responding to a question on how often Quality Assurance and standards officers visited schools to assess implementation of Ministry of Education safety guidelines on physical infrastructure, one District Quality Assurance and Standards officer said that:

We rarely visit schools for assessments due to shortage of officers. Other than support staff, I am the only Quality Assurance and Standards Officer in this district yet we are supposed to assess a school as a panel. Before, we used to team up with officers from the neighbouring districts; it has since stopped due to increased duties and persistent staff shortage in the districts

This is further supported by Kapuya, (1993) who asserted that the District Education Officers have extra responsibilities which are administrative in nature. These administrative duties include and not limited to staff recruitment exercise, disciplinary problems, bursary allocation, co-curriculum activities and boards of schools management. These responsibilities require adequate staff in the DEO's office.

During school visits, the researcher observed staff shortage in most schools. Most teachers had large classes which were not easy to manage, kitchen, security

personnel, librarians and other support staff also appeared inadequate to perform their duties without compromising safety of the learners.

On transport, most respondents, 160 (80%) students, 34 (85%) teachers, ten (10) head teachers and all (6) Education Officers reported that lack of transport was affecting implementation of safety guidelines in schools. Most schools did not have vehicles, available ones were poorly maintained or broken down, and fund to fuel them was a problem. One District Quality Assurance and Standards officer said “School vehicles are major requirements when it comes to ensuring safety in schools, if a child is hurt in school; you require quick means to rush them to hospital”.

The researcher observed that, none of the District Education Officers had a government vehicle, all of them were either relying on already overstretched school or public vehicles for transport. This could have negative effect on monitoring and evaluation of government policies implementation in schools under their jurisdiction. This was clearly cited by one District Education officer who said that:

I have visited only two schools this term; this is due to lack of transport since we do not have government vehicles. Initially, I used my own car to visit schools expecting some payments from the government but I was not paid despite completing the necessary claim forms. I have since stopped using it because it turned out to be very expensive for me

It was established that inadequate budget, time, staff and means of transport to address safety needs in schools were major resources affecting implementation of Ministry of Education safety guidelines on physical infrastructure in schools.

#### 4.4.4 Communication

**Table 4.18: Respondents' Responses on how Communication Affected Implementation of Safety Guidelines in Schools**

Item	Student				Teacher				Headteacher		DEOs		DQASOs	
	Yes		No		Yes		No		Yes	No	Yes	No	Yes	No
	F	%	F	%	F	%	F	%	F	F	F	F	F	F
Whether there was communication on safety	120	60	80	40	30	75	10	25	12	3	3	-	3	-
Whether this Communication was adequate	42	35	78	65	6	20	24	80	5	7	-	3	-	3
Whether feedback mechanisms were effective	18	15	102	85	6	20	24	80	3	9	-	3	-	3
Whether communication channels were effective	36	30	84	70	4	10	28	90	4	8	1	2	1	2

Most schools were communicating safety related issues to relevant stakeholders. This was supported by 120 (60%) students, 30 (75%) teachers, twelve (12) headteachers and all (6) Education Officers. This concurred with Christopher (1992) who postulated that effective communication is important throughout the implementation of safety guidelines process in schools. Education managers need to continuously communicate new ideas or solutions to problems to schools in their districts. However, majority of the respondents, 78 (65%) students, 24 (80%) teachers, five (5) headteachers and all (6) Education Officers felt that communication regarding

Ministry of Education safety guidelines implementation was inadequate. They indicated that information communicated was inadequate, was not timely, was hard to interpret and the channels used were inappropriate.

This view was further elaborated by one District Education Officer who told me that “it is good you kept time as we had agreed, I will be leaving for a meeting exactly after twenty minutes, you see the importance of communication?” when I said yes, he continued “effective communication is an important process of management, it helps in planning and time management” when I asked him about factors affecting implementation of MOE safety guidelines, he smiled and said:

Just as I have told you few minutes ago about proper communication. Safety in schools relies mainly on good communication and consultation with all relevant bodies. This motivates work force and students and increases performance leading to improved services and reduced cases of accidents and injuries. Parents and guardians expect and deserve honest, truthful and timely communication about safety of their children at school.

This concurred with the findings of a study conducted by Rugut (2003) on teachers, inspectors and education officers’ perceptions of the expected roles of peer supervisors in Kenyan primary schools in Nandi District that inadequate communication and coordination of stakeholders on safety issues in schools hampered effective implementation of safety policies. The study by Rugut, (2003) further stated that, lack of regular communication to sensitize various stakeholders on their roles also affected negatively the smooth implementation of safety policies in schools.

Most students 78 (65%) felt that implementation of Ministry of Education safety guidelines was not being communicated adequately to their parents or guardians. They reported that report forms and newsletters given to them at the end of the term mostly contained information on their academic progress. This view was echoed by 24 (85%) teachers who indicated that parents were rarely informed about

safety needs in a school and when they were called for academic clinics and annual general meetings, what was mostly addressed were issues related to academic performance and fees payment. One District Quality Assurance and Standards Officer remarked that:

Sometimes I don't like how some school administrators communicate safety information to parents and guardians. They are not able to articulate measures that are in place to ensure safety at any time. Telling parents that "safety is our top priority" is not enough. Parents are more educated consumers of best practices, and generalities will not suffice. To communicate about safety, school administrators must make sure their schools have well-developed and exercised safety and crises plans and their staff are trained to implement the plans.

Regarding feedback mechanisms, majority of the respondents 102 (85%) students, 24 (80%) teachers, nine (9) headteachers and all (6) Education Officers felt that there were effective feedback mechanisms. This could indicate breakdown in communication as stated by Okumbe (1999) that good communication involves not only giving employees information but also listening to and taking account of what they say, particularly when they report problems before making any safety decision. This is possible only when effective feedback mechanisms are put in place. This view was enhanced by a District Education who remarked that "successful communications during and after a crisis require that you listen, respond to concerns and show compassion".

On whether there were effective communication channels on safety issues in schools. Majority of the respondents, 84 (70%) students, 28 (90%) teachers, eight (8) headteachers and four (4) Education Officers said no. Responses on various communication channels regarding safety guidelines implementation were as shown in Table 4.19.

**Table 4.19: Students' Responses on Channels used to communicate Safety Issues in Schools**

Item	Student		Teacher		Headteacher	DEOs	DQASOs
	F	%	F	%	F	F	F
Safety bulletins	20	10	5	12.5	2	1	1
Newsletter	80	40	6	15	9	2	1
Posters	30	15	7	17.5	6	1	1
Notice boards	50	25	15	37.5	11	2	2
School assemblies	180	90	35	87.5	13	3	3
Barazas	160	80	30	75	12	2	3
Suggestion boxes	70	35	15	37.5	10	2	2
School magazines	40	20	10	25	9	1	2
Music festivals	120	60	20	50	10	3	3
Drama	110	55	28	70	13	3	3
Sports	130	65	29	72.5	14	3	3
Clubs and societies	90	45	16	40	11	2	3

It is clear from Table 4.19 that schools were using variety of channels to communicate about safety issues to various stakeholders. This was in line with Fullan (1991) who postulated that communication on school safety is especially difficult because safety information need to be exceptionally clear and comprehensive. This can be achieved only when school administrators engage use of effective channels of communication. Fullan (1991) further argues that communication is the key to successful implementation of government policies. Education officers should therefore disseminate information to all schools through effective means of communication like telephones, newsletters, computers, circulars, newspapers and meetings.



According to responses on various channels of communication, school assemblies, barazas, music festivals, drama and sports were the most popular channels of communication. These methods could facilitate communication since they involve face to face talks. On the issue of using co curricular activities to communicate school safety issues, one District Education said that:

From time in memorial, important messages were put across through music and dance, elocutions, drama and various sporting activities. Such methods of communication are very effective even today. Take for example music and drama; they carry wonderful messages across the world on various themes that boosts safety culture in our schools. That is why MOE gives a lot of emphasis to co-curricular activities in schools for holistic development of individuals.

The study established that, all Education officers who were interviewed were using circulars, telephones and meetings to communicate to schools. According to them these channels provided limited information about implementation of government policies and were not effective in facilitating implementation of Ministry of Education safety guidelines on physical infrastructure in schools. He further stated that computers provide most effective means of communication and could make communication between education officers and school administrators more effective and easier. This view was cited by one District Education Officer during the interview when he said that:

Sometimes it becomes very hard for us to communicate policy issues to schools because we rely widely on circulars, meetings and calling the schools. This is frequently faced with various challenges. I feel that computers that have been donated to schools by the government through economic stimulus projects will improve communication regarding government policies implementation in schools.

The researcher observed that use of safety bulletins, newsletters, school magazines; suggestion boxes, notice boards, clubs and societies, and posters were not very popular in schools. This could hinder effective communication on schools' safety issues to various stakeholders. Christopher (1992) stated that alternative methods of

communication should be considered rather than adopting a few methods in isolation. He further asserted that posters could make a more immediate and emotional impact and can appeal more to the instinct preservation by giving illustrations of what can go wrong and how to avoid accidents.

Concerning communication channels, one District Quality Assurance and Standards Officer asked me during the interview “do you know today’s students are part of “generation text” because text messaging, cell phones, e-mails, and other communications are integral to their interactions?” he paused a bit then continued:

While school leaders typically need time to investigate rumours and verify information, many parents will forward to each other information they mistakenly believe to be true. A good crises communication plan could reduce delay and deliver timely and accurate messages when a rumour breaks.

The study established that inadequate information on safety, limited channels of communication and lack of effective feedback mechanisms were affecting implementation of Ministry of Education safety guidelines on physical infrastructure in public secondary schools in Nairobi West Region.

#### 4.4.5 Safety Equipments

**Table 4.20: Respondents' Responses on how Safety Equipments Affected Implementation of Safety Guidelines in Schools**

Item	Student				Teacher				Headteacher		DEOs		DQASOs	
	Yes		No		Yes		No		Yes	No	Yes	No	Yes	No
	F	%	F	%	F	%	F	%	F	F	F	F	F	F
Availability of safety equipments	150	75	50	25	35	90	5	10	12	3	2	1	2	1
Adequacy of safety equipments	60	40	110	60	7	20	28	80	5	7	1	1	-	1
Proper location of safety equipments	26	24	114	76	7	20	28	80	4	8	1	1	-	1
Whether in good condition	24	16	126	84	4	11.4	31	88.6	5	7	1	1	-	1

As show in Table 4.20 Overwhelming number of respondents, 150(75%) students, 35 (90%) teachers, twelve (12) headteachers and four (4) Education Officers stated that safety equipments were available in schools. However, majority of them 110 (60%) students, 28 (80%) teachers, seven (7) headteachers and two (2) Education Officers felt that safety equipments in the schools were inadequate. This contrasted the view expressed by Squelch (2001) that all school administrators have a duty to secure proper safety requirements in schools in order to protect all adults and pupils while they are on school premises. Citing inadequacy of safety requirements, most respondents indicated that necessary equipments such as first aid kits, fire

extinguishers, electrical plug covers, fire blankets, safety glasses and gloves, spill kits, laboratory coats and aprons were lacking, were very few or in bad state. As observed by the researcher most schools did not have safety equipments in place, even lockable cabinets to store chemicals were not available. Lack of such important safety equipments could jeopardize health and safety of learners and school community at large. When one District Education Officer was asked to comment on school safety equipments, he commented that:

I am not amused by the lapse in disaster preparedness experienced in our schools. Some of them barely do anything in as far as safety is concerned. Most headteachers will always tell you there are no funds to purchase safety equipments. I walked in to a laboratory and found a half bucket of sand. I wondered how much it could help if a fire broke out.

Another District Education Officer was equally unhappy about disaster preparedness in schools. She remarked that:

As I had told you earlier, lack of training on school safety is a major drawback in as far as safety guidelines implementation is concerned. Most school administrators do not understand which safety equipments to purchase. I am telling you that the only safety equipments you can get in some schools if you are lucky are fire extinguishers and a first aid box.

Similar views were expressed by a District Quality Assurance and Standards Officer who had earlier stated that “some school administrators do not buy other safety equipments like fire blankets, gloves and other protective devices. The fire extinguishers alone cannot serve any purpose in the event of fire break out”

Regarding location of safety equipments, most respondents, 114 (76%) students, 28 (80%) teachers, nine (9) headteachers and all (6) Education Officers felt that safety equipments available were inappropriately located. They felt some fire extinguishers were placed behind doors or in dark corners. This could hamper their usage in the hour of need. The researcher observed that some fire extinguishers were

not visible, were placed too high such that most people could not reach them. Some buckets of sands were kept in a crowded store. This contradicted Clark (2002) who stated that safety equipments in schools should be located within reach by the users if a disaster struck.

On the condition of safety equipments in schools, majority of the respondents, 126 (89%) students, 31 (88.6%) teachers, ten (10) headteachers and all (6) Education officers stated that most of the safety equipments in schools were not in good state of repair. Most of them were defective and had not been serviced over a long period of time. This could impact negatively on their use. On condition of safety equipments in schools, One District Education Officer remarked that “some schools have fire extinguishers of low quality, small size and not serviceable. This beats the purposes of having them in the first place”. The researcher observed that, most safety equipments were defective, broken or worn out. This could compromise safety of those in school premises.

The study established that some schools under did not have safety equipments. The available ones were not adequate, were in appropriately located and in poor condition. This concurred with the findings of a study conducted by Kipngeno and Wambua, (2009) in Turkana District which showed that inadequate disaster preparedness and lack of adequate and proper safety equipments in schools hampered implementation of safety guidelines in schools.

#### 4.4.6 Condition of school buildings

**Table 4.21: Respondents' Responses on how condition of School Buildings Affected Implementation of Safety Guidelines in Schools**

Item	Student		Teacher				Headteacher		DEOs		DQASOs			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
	F	%	F	%	F	%	F	%	F	%	F	%		
Whether school buildings are constructed properly	36	18	164	82	8	20	32	80	5	10	1	2	1	2
Whether school buildings are appropriately located	50	25	150	75	10	25	30	75	6	9	-	3	-	3
Whether school buildings were well equipped	80	40	120	60	12	30	28	70	4	11	-	3	-	3

In reference to schools buildings' condition, most respondents, 164 (82%) students, 32 (80%) teachers, ten (10) headteachers and four (4) Education Officers felt that most schools' buildings were not constructed properly. On whether school buildings were appropriately located, 150 (75%) students, 30 (75%) teachers, Six (6) headteachers and all (6) Education Officers said no. they stated that some schools' buildings were placed near entrances, close to pedestrian's paths and busy roads. Others were close to shopping centres and informal settlements. All these factors

hindered effective implementation of Ministry of Education safety guidelines on physical facilities in schools. Most headteachers and Education Officers indicated that most schools lacked site plans to guide them while putting up school buildings. This was pointed by one District Education Officer who stated that “in some schools, buildings are scattered all over the place without giving any consideration to the use of the building”.

The researcher observed that most schools lacked site plans to guide them on where to put which building. This led to inappropriate location of buildings. This could not only hamper implementation of safety guidelines in schools but also could interfere with general aesthetic of the school. When one District Quality Assurance and Standards Officer was asked whether condition of schools’ buildings could affect implementation of safety guidelines she had this to say:

A school that was designed 50 years ago cannot face safety demands that were never even considered when the buildings were built. When we talk about safety guidelines, they ask us “do we bring down these buildings or what do you expect us to do? How do I fix a rump on this building to make it disability friendly?” We sometimes lack answers to such questions. Unless the government addresses safety issues with all the seriousness it deserves, then we are all stuck.

Condition of schools’ buildings facilities was considered as a factor that hindered implementation of safety guidelines in schools. One hundred and twenty (60%) students, 28 (70%) teachers, eleven (11) headteachers and all (6) Education Officers were of the view that some equipments in school buildings were in built and it was hard to demolish them or make them learner friendly without interfering with the buildings’ foundation . To this effect one District Education Officer said that:

Some of these old buildings have very funny and unsafe fixtures such as cupboards in classrooms and libraries, and benches in the laboratories among other buildings. Due to ageing and lack of maintenance culture in our schools, such fixtures are becoming dangerous to students.

The researcher observed old cupboards that were fixed on the walls and were loaded with cargo that were not in use. Some wood and metal debris had been placed on top of these cupboards. This could increase risks associated with such facilities since they could fall on the students. Other issues mentioned by students and teachers included; accidents due to schools located near busy highways, and entrance of intruders in the school with bad motives, fire outbreaks, electric shock due to hanging wires and spread of diseases.

The findings of the study indicated that condition of the schools' buildings in terms of how they were constructed, located and their facilities affected implementation of Ministry of Education safety guidelines on physical infrastructure in the schools under study. This was in line with a study conducted by Magdla (2006) which found out that schools were especially vulnerable to unsafe situations and threats of violence due to among other things, poor resources and infrastructure, their location, especially in and around informal settlement, the type of their building and environmental design.



#### 4.4.7 Schools' Safety Programmes and Policies

**Table 4.22: Respondents' Responses on how Schools' Programmes and Policies Affected Implementation of Safety Guidelines in Schools**

Item	Student		Teacher		Headteacher	DEOs	DQASOs
	F	%	F	%	F	F	F
Creating school wide prevention and intervention strategies	120	60	25	62.5	10	3	3
Ongoing staff development	90	45	35	90	14	2	3
Ensuring quality school facilities and security technologies	150	75	38	95	13	3	3
Instituting school based links with mental health and social services agencies	100	50	30	75	15	3	2
Fostering school family and community involvement	130	65	36	90	12	3	3
Fostering school-Law enforcement partnership	90	45	30	75	14	3	3
Acquiring and utilizing resources to enhance a safe learning	60	30	32	80	15	3	3

All respondents indicated that inadequate safety policies and programmes in schools was a major factor affecting implementation of Ministry of Education safety guidelines. Majority of students, 120 (60%), teachers, 25 (62.5%), head teachers, ten (10) and all (6) Education Officers felt that safety policies addressing creation of school wide prevention and intervention strategies were either lacking or inadequate. This contradicted Schnaider (2000) who asserted that proactive approaches to preventing violent behavior by learners are more effective than reactive punishment based approaches. Proactive approaches can protect school property and help at-risk students become productive citizens.

Schneider (2000) further states that this can only be possible when sound safety policies and programmes are put in place. Most teachers, head teachers and Education officers stated that proper policies guiding on physical layout of the school buildings and grounds could improve the management and use of physical space to prevent and deter criminal behavior. One District Education Officer said that “safety can only be enhanced by developing and using adequate architectural designs”. This view was further developed by a District Quality Assurance and Standards Officer who had this to say:

Schools are ideal setting for organizing an effort against the increasing problems among the youth that lead to destruction of school property. Therefore school administration is better placed to organize for systematic social skills instruction such as conflict resolution education and drug and alcohol resistant curriculum.

The researcher observed that characteristics of some of the surrounding school neighborhood could contribute to risk factors in a school. Therefore school administrators required policies and programmes to address poverty, dysfunctional

and chaotic families' life, drug and substance abuse among the caregivers, domestic violence, neglect, emotional and physical abuse, negative attitude, sexual exploitation and media violence. If such issues were addressed adequately in schools, it could reduce cases of indiscipline that led to destruction of school property.

Inadequate policies and programs regarding ongoing staff development was seen by most respondents, 90 (45%) students, 35 (90%) teachers, fourteen (14) head teachers and five (5) Education Officers as a factor affecting implementation of Ministry of Education safety guidelines on physical infrastructure in the schools. They felt that both teaching and subordinate staff were not being given skills on how to handle unsafe situations that are likely to happen in schools.

According to Carter (2002) ongoing staff development is an integral part of the educational planning process to ensure safety. One District Education Officer indicated that staff development is normally tailored towards academic performance and nothing much was being done to equip staff with safety knowledge. This view was supported by a District Quality Assurance and Standards Officer who said that:

Staff development is to ensure high levels of learning for all students through improved professional learning experiences for every school employee who affects students' learning. But the sad bit is that when it comes to safety guidelines implementation, this is left to few individuals who are confined to our traditional beliefs of what school safety is or is not. Unfortunately, safety is not viewed as a vital support structure for effective learning.

According to 150 (75%) students, 38 (95%) teachers, thirteen (13) head teachers and all (6) Education Officer, schools lacked proper policies for ensuring quality school facilities and security technologies. They stated that the task of school is to promote resilience, teach skills for success and develop alternatives to replace the maladaptive forms of behavior the child has learnt to use in achieving his or her social goals. If there were adequate policies and programmes to address these issues then

schools could be safe places for the children. One District Education Officer remarked that:

Schools are falling apart; age has caught up with them. Maintenance has often been deferred to a point of diminishing returns. Building deficiencies have become glaring over time, highlighted by concerns over frayed wiring, peeling paints, decrepit plumbing among other needs. Yet renovation and maintenance policies and programmes are not in place in our schools.

The researcher observed that in some schools, facilities such as buildings, furniture and electrical equipments among others had not been well maintained. Most of them had been heaped in a store or in an open space. This could indicate lack of clear policies regarding repairs and maintenance of school's facilities as required by safety guidelines on physical infrastructure in schools. It was observed that security technologies such as alarm systems, panic buttons and surveillance cameras had not been embraced in the schools under study. This could hinder effective implementation of safety guidelines in schools.

One hundred (50%) students, 30 (75%) teachers, all (15) head teachers and five (5) Education Officers indicated that most schools had no programmes and policies of instituting school based links with mental health and social services agencies. Schnaider (2000) asserts that links between the school and mental health and social services was very crucial in ensuring safety in schools. He further stated that these services are essential for school's ability to ensure a safe and healthy learning environment for all students. This view was supported by one District Education Officer who remarked that:

It would be very helpful if our schools established policies and programmes to work with mental health and social services agencies. Such services addresses classroom behavior and discipline, promotes students' social- emotional

needs, identify and respond to a serious mental health problems, and support and partner with families. With such programmes in place, fewer cases of unsafe situations will be reported in our schools.

Fostering school, family and community involvement in the implementation of safety guidelines in schools was viewed as a worthwhile initiative in the implementation of safety guidelines in schools by 130 (65%) students, 36 (90%) teachers, twelve (12) head teachers and all (6) Education officers. This was summarized by one District Quality Assurance and Standards Officer who said that:

Schools are more effective and caring places when they are an integral part of the community. This contributes to enhanced academic performance, fewer discipline problems, higher staff morale and improved use of resources.

Ninety (45%) students, 30 (75%) teachers, fourteen (14) head teachers and all (6) Education Officers indicated that programmes and policies geared towards fostering school-Law enforcement Partnership could assist in the implementation of safety guidelines in schools. One District Education Officer remarked that:

School-law enforcement partnership can go a long way in enhancing safety in our schools. This is because this partnership would involve conducting security assessments, developing crisis- management procedures, conducting classroom law- related educational activities, providing staff development training and assisting children who are crime victims.

Majority of the respondents, 32 (90%) teachers, all (15) head teachers and all (6) Education Officers felt that lack of sound policies and programmes regarding acquiring and utilizing resources to enhance a safe learning environment was affecting implementation of safety guidelines in schools. One District Education Officer stated that “human resource is one of the fundamental qualities of a safe and responsible school” while a District Quality Assurance and Standards Officer said that “strong headship, caring staff, family and community are important resource in the

safety guidelines implementation process”. They also cited information, finances and time as important resources that required policies and programmes on how to acquire and utilize them.

#### 4.4.8 School’s Environmental Factors

**Table 4.23: Respondents’ Responses on how Schools’ Environmental Factors Affected Implementation of Safety Guidelines in Schools**

Item	Students		Teacher		H/T	DEOs	DQASOs
	F	%	F	%	F	F	F
Cases of drugs and substance abuse	120	60	35	75	12	3	3
Negative peer Pressure	180	90	38	95	14	3	3
Negative school culture	90	45	20	50	9	3	2
Poor role models	170	85	25	62.5	10	3	3

As indicated in Table 4.23, there were a number of environmental factors that affected implementation of safety guidelines in schools. Sixty six (66) percent of the respondents felt that cases of drugs and substance abuse in schools was contributing to lack of safety in schools. This was due to the fact that students under the influence of drugs and alcohol could engage in destructive behavior like burning down buildings without thinking about the consequences. This concurred with Magdla (2006) who asserted that there are high numbers of crimes connected to drug and substance abuse in schools. This is because a number of students commit crime in order to fund their drug habit. Explaining how drug and substance abuse hampered implementation of safety guidelines in schools, one District Education Officer said that:

Unless schools' environment is made drug free, we shall continue having unsafe schools. Drug is evident in our schools. You should know that many teens use drugs because they are depressed or think drugs will help them escape their problems. The truth is they find themselves in deeper problems. They often cause a lot of destruction and even loss of lives in schools.

When one District Quality Assurance and Standards Officer was asked to comment on drug and substance abuse and how it hindered implementation of safety guidelines in schools, she scratched her hands and said that:

Unless we all address the issue of drugs and substance abuse that is prevalent in our schools, strikes will always be reported in our schools. The youth have many reasons for using drugs. They believe they will find pleasure in them, someone tried to convince them that drugs will make them feel good or that they would have a better time if they took them. You see, it is about all of us finding ways of declaring zero drug and substance abuse tolerance in our schools in order to have a safe school environment.

The researcher observed that, most schools had not displayed posters or other forms of communication to promote a campaign against drugs and substance abuse in schools. Students had also not been encouraged to display their own articles regarding dangers of drug and substance abuse. Lack of proper information regarding use of drugs could hamper implementation of safety guidelines in schools.

Negative peer pressure was viewed by an overwhelming number (91%) of respondents as a major school environmental factor affecting implementation of safety guidelines in schools. They all felt that negative peer pressure was an impediment factor to sustaining safety in school. This was said by one District Education Officer who stated that:

Students continue to struggle with peer pressure through years of schooling and perhaps even later. Peer pressure is inevitable since there always exists one "cool" group in a school. Basically, this includes a bunch of students who do all things they are not supposed to do and make it seem like a "cool" thing to do. Such groups will always influence others negatively to destroy school properties and hurt others.

One District Quality Assurance and Standards Officer noted that negative peer pressure was sometimes too great on students who were willing to obey school rules and regulations. She had this to say:

Students who are too sincere at their studies have often been at receiving end of ridicule and a lot of meaningless bashing by the bullies at school. Indulging in unsafe sexual practices, alcohol, drug abuse, eating disorders and smoking are activities that are part of peer pressure phenomenon. These activities are very risky and can lead to destruction of school property.

The study established that negative peer pressure in the school could impact negatively on safety and security of the schools. This concurred with Coulson, (2010) who observed that the school playground, classrooms, dormitories and other places where students interact and influence each other sometimes negatively is often a mine field of potential social challenges that can culminate into security risk for many students.

Table 4.23, show that a small percentage (47.5%) of the respondents felt that negative school culture was an environmental factor that could hinder successful implementation of Ministry of Education safety guidelines on physical infrastructure in schools. They stated that when a school effective safety guidelines implementation programmes is linked to a positive school culture, success is achieved. This was in line with Cohen and Pickeral (2007) who postulated that positive school culture is important dimension that can be linked to effective risk prevention and the advancement of teaching and learning process. Explaining how school culture was important aspect of a safe school, one District Quality Assurance and Standards Officer said that:

Culture is the stream of norms, values, beliefs, traditions and rituals built up over time. These are all reflected in the general out look of a school. Imagine entering a school, what do you see? What do you hear the teachers and other staff members saying? What do the bulletin boards look like? How easy is it to



enter the school? What are the students saying and doing? How noisy is the school? Do you feel welcome or afraid? What is the general feel of the environment? Answers to these questions will help you to know whether a school culture is a positive or a negative one.

She paused a bit and continued:

If a school culture is toxic or negative, teachers are unwilling to take any initiative to ensure safety in schools. They will bypass their students misbehaving and assume nothing is happening. I have visited schools to solve some safety related issues and these are places where the tone is not inviting, where nobody wants to be, where negativity dominates conversations, interactions and planning. The only stories recounted are of failure. To them, the way it has always been done is the right way.

She looked at me straight in to the eyes and asked me “in such schools, is it possible to implement government policies? Don’t answer me”

One District Education Officer had identified overcrowded and chaotic schools as one of the key barriers to creating a positive school culture. According to him:

To build trust, teachers need to get to know the personalities, strengths, challenges and needs of individual students as well as dynamics between different students. Therefore class size should be such as to permit the teacher to give pupils individual attention. In overcrowded schools and limited resources, teachers do not have time and space to build the necessary relationships with students. Students themselves have a more difficult time managing multiple peer to peer relationships and tensions are more likely to develop.

The researcher observed that schools that had inviting environments were orderly, time management was given top priority and the general aesthetic of these schools was pleasing. On the contrary in the schools that had negative culture, students and teachers were not responding to bells promptly, a lot of graffiti was noticed and the general atmosphere of laxity dominated these school. This could interfere with implementation of safety guidelines in schools.

High number (84.6%) of respondents felt that poor role model both in the society and school was an impediment to the implementation of safety guidelines in

schools. This could be due to the fact that a good role model is supposed to act as a guide and use personal experience to inform and help others. Most students indicated that if their teachers were keen on observing safety requirements like putting on protective gear during practical lessons, they would also emulate them. Similar sentiments were cited by one District Education Officer who stated that “I believe that students will always imitate their parents, teachers and society in which they live” she paused and asked me “do you remember what happened in the year 2008 in our schools during post election violence?” I replied “yes, more than 300 schools as reported by the media went on strike with most of them burning down their schools’ building” she shook her head in agreement with what I was saying and continued:

That is a perfect example of how a role model can influence young ones either positively or negatively. A role model is a person whose behaviour is imitated by others. There are both good and bad role models. We all hope that our students have good, strong role models who possess the kind of qualities that would make our children want to maintain safety in all aspects of school environment.

The researcher observed that, in some schools, even staffrooms and other offices had not complied with the Ministry of Education safety guidelines on physical infrastructure. This could affect students’ behaviour negatively since they lacked good examples to emulate. The study established that cases of drug and substance abuse, negative peer pressure, toxic school culture and poor role models were some of the schools’ environmental factors that affected implementation of Ministry safety guidelines in schools.

Inadequate Knowledge of safety standards manual for schools in Kenya, lack of proper training, limited resources, lack of effective communication, poor condition of existing buildings, lack of comprehensive policies and programmes to address safety in schools and negative school environment were found to be the major factors

affecting implementation of Ministry of Education safety guidelines on physical infrastructure in public secondary schools in Nairobi West region in Kenya.

#### **4.5 Research question 3: Involvement of Stakeholders in the Implementation of MOE Safety Guidelines in Public Secondary Schools in Nairobi West Region**

The broadened educational goals and objectives as a result of changes in socio-economic development have necessitates involvement of several minds from a wide range of stakeholders in management of school facilities and implementation of government policies (Okumbe, 1999). This view is further explained by Hord (1995) who asserts that implementation of government policies becomes effective or possible where all stakeholders give maximum support to the implementation process. Clark (2002) also states that safety of school depends to a large extent on measures taken to organize and manage such safety. In this respect, school management, committees, Board of Governors, head teacher, teachers, parents, learners and other stakeholders have important role to play in facilitating and enhancing safety in schools. In one of the research questions, this study sought to establish how stakeholders were involved in the implementation of safety guidelines in public secondary schools in Nairobi West region. The results were as discussed;

##### **4.5.1 Involvement of Students in MOE Safety Guidelines Implementation**

Respondents were asked to indicate whether students were involved in the implementation of Ministry of Education guidelines in the schools under study. Their responses were as indicated in Table 4.24

**Table 4.24: Respondents' Responses on Students' Involvement in the Implementation of Safety Guidelines in Schools**

Item	Student		Teachers		H/Teachers	DEOs	DQASOs
	F	%	F	%	F	F	F
Students were in safety committees	20	10	5	2.5	2	-	-
Students were provided with proper safety reporting systems	30	15	6	15	4	1	1
Students were effectively carrying Out safety campaigns	80	40	10	25	9	1	2

Few respondents, 20 (10%) students, 5 (2.5%) teachers, two (2) headteachers and none Education Officer indicated that students were involved in schools' safety sub committees. Majority of respondents stated that most schools had not constituted safety committees to address safety concerns in schools. When one District Education Officer was asked whether students were involved in schools' safety sub committees, he asked me "Do such committees exist in our schools?" This indicated that most schools had not formulated safety sub committees as required by the MOE safety standards manual for schools in Kenya (2008). This also contradicted Ziva (2002) who postulated that school safety committees are crucial. They identify safety needs of the school with a view of taking necessary action, mobilize resources required by the school to ensure a safe, secure and caring environment for learners, staff and

parents and to monitor and evaluate the various aspects of school safety with a view to enhancing school safety. Mapfumo, (1999) further stated that direct responsibility of overseeing school safety falls within specific school safety committees.

Regarding provision of proper safety reporting systems to students, few respondents, 30 (15%) students, 15 (6%) teachers, four (4) headteachers and two (2) Education officers felt that students were enabled to report any safety concern in the school. They cited presence of school assemblies, class meetings and open forums as ways provided for reporting any safety issue. However, overwhelming number of respondents stated that most schools had not established proper safety reporting systems for students because the available ones were inadequate and could allow intimidation from their colleagues. They further reported that most schools did not have suggestion boxes to facilitate reporting of unsafe situations in schools. Where suggestion boxes were present, they were inappropriately located in full view of school administration and other people. This hindered effective use of these facilities.

One District Quality Assurance and Standards Officer explained that, although there were no proper safety reporting systems in schools, it was important to encourage students to report any suspicious individuals or activities on school grounds. This was in line with the views of one District Education Officer who commented that

Students' participation in school safety promotes responsible student development and maturity, enabling students to be part of the solution rather than being perceived only as part of the problem. It is prudent for school administration to provide students with various avenues of reporting presence of weapons, safety concerns, and criminal activities. Without such arrangement it would be hard to implement MOE safety guidelines on physical infrastructure in schools.

Eighty (40%) students, 10 (25%) teachers, nine (9) headteachers and three (3) Education Officers indicated that students were effectively carrying out safety campaigns in their schools. This could enhance implementation of safety guidelines in schools. According to Bucher and Manning (2003) students' involvement in campaigns for safety guidelines implementation in schools is critical since they are among key stakeholders in school community. However, overwhelming number of students, 120 (60%) and teachers, 30 (75%), nine (9) teachers and three (3) Education officers felt that students were not conducting safety campaigns in their schools as expected. Most school administrators had not designed creative ways for students to campaign against unsafe situation in schools, such as classroom posters, bookmarks, calendars and even videos regarding school safety. Responding to students' campaign on safety in schools, one District Education officer had this to say:

It is crucial for school administration to encourage students to carry out safety campaigns in their schools. This can encourage students to enhance safety culture in their schools. Students represent one of the best resources for promoting and maintaining safe school. Therefore, it is important for students to promote school safety through various activities, curriculums, support services and peer activities. Adopting a personal and social skills curriculum that focuses on good communication, decision making, responsible citizenship and conflict resolution is crucial in maintaining a safe school.

The researcher observed that in some schools, students were involved in implementation of safety guidelines in schools. This was done through provision of school safety related rules and regulations to guide them on responsible behavior in the school. However, there was no evidence of students' involvement in safety campaign through advertisement, brainstorming, bulletin board and posters among other avenues. This could hinder implementation of safety guidelines on physical infrastructure in the schools under study.

#### 4.5.2 Parents' Involvement in the Implementation of MOE Safety Guidelines

Parents play an important role in the implementation of MOE safety guidelines in schools. In order to understand the nature of parents' involvement, respondents were asked to comments on parents' involvement in the implementation of MOE safety guidelines on physical infrastructure in the schools under study. Their responses are shown in Table 4.25

**Table 4.25: Respondents' Responses on Parents' Involvement in the Implementation of Safety Guidelines in Schools**

Item	Student		Teachers		H/Teachers	DEOs	DQASOs
	F	%	F	%	F	F	F
Understand schools' Safety policies	160	80	32	80	12	3	3
Be aware of school's rules and regulations	180	90	38	95	13	3	3
Understand schools' safety protocol	90	45	20	50	10	2	2
Encourage positive commitment of their Children	150	75	39	97.5	15	3	3
To monitor their children's activities	80	40	35	87.5	14	3	3

Table 4.25 shows that, 160 (80%) students, 32 (80%) teachers, twelve (12) headteachers and all (6) Education officers felt that there was need for parents to understand school safety policies. This knowledge could assist them to promote safe and healthy behavior among students. This concurred with Squelch (2001) who asserted that students who feel supported by their parents are less likely to experience distress leading to disruptive behavior. He further stated that school's effort to implement safety guidelines is more successful when parents have full information regarding them. Similar views were expressed by one District Education Officer who said that "parents who familiarize themselves with safety policies are better placed to intervene in their children's behavior". Expounding on these sentiments a District Quality Assurance and Standards Officer had earlier commented that "parents who understand safety policies can serve as critical resource for schools to maintain a safe, positive and welcoming climate so that students are better able to achieve academic success"

One hundred and eighty (90%) students, 38 (95%) teachers, thirteen (13) headteachers and all (6) Education Officers maintained that parents who are aware of schools' rules and regulations assisted in the implementation of safety guidelines in schools. This was in line with Reid (2000) who stated that a safe school sets high academic standards and clear and consistent rules of behavior and discipline that are consistently and uniformly enforced. A school can enjoy this only when parents are aware of such rules and standards. Responding to how parents can be involved in the implementation of safety guidelines, one District Education officer stated that:

As education managers, we require that parents are consistently reminded about school rules and regulations. On the contrary, what happens in our schools is that, parents are given these rules as part of form one joining instructions. This practice does not help parents to understand rules in their children's schools and make sure their children know what is expected of



them. Some are not even aware of the consequences of breaking these rules. Therefore it becomes increasingly hard for parents to work with school administration to enforce the consequences.

According to Table 4.25, less than half, 90 (45%) of the students, half, 20 (50%) of the teachers, ten (10) headteachers and four (4) Education Officers felt that parents should understand schools' safety protocol. Headteachers and teachers indicated that some parents were not aware or simply ignored school's safety protocol, this was demonstrated by the fact that some parents refused to stop at the gate for security checks, and others did not sign visitors' book and those who did failed to give all details required. In some cases parents allowed students to carry illegal items to schools while others could walk straight to classrooms or other areas to see their children without passing through the office. This was a security threat since criminals could easily take advantage and harm students. One District Quality Assurance and Standards Officers said that "parents, just like any other person should be briefed about safety protocol in the school and should be willing to adhere to them in order to enhance school safety"

Overwhelming number of respondents, 150 (75%) students, 39 (97.5%) teachers, all (15) headteachers and all (6) Education Officers were of the view that parents should encourage their children to have positive commitment towards school safety. They stated that such practice would help in the implementation of safety guidelines in schools since students would be willing to listen. This concurred with Moulidi (2008) who stated that parents who spend time with their children and encourage positive commitment to school enhance smooth implementation of safety policies in schools. One District Education Officer remarked that "parents, through discussion of school's safety concerns with their children always ask help from

schools' administrators if there are on-going problems". Another District Education Officer commented that:

For schools to be one of the safest places for our children, parents must play an integral part in maintaining that safety. It is an on-going and evolving concern, as are measure we take to combat the day to day challenges that sometimes prevent children from feeling safe and productive at school. Schools that thrive in students' safety and academic success could not do without parents who are alert and active always encouraging their children to be committed in enhancing school safety.

Fewer number of students, 80 (40%) as compared to teachers, 35 (87.5%), headteachers, fourteen (14) and all (6) Education Officers indicated that parents should monitor their children's activities. This could be due to the fact that students thought they were able to take control of their lives without their parents' supervision while other respondents felt otherwise. According to Mwangi (2008) destruction of school facilities could be minimized if parents were able to monitor and supervise their children's activities and their friends and if they suspect something is wrong talk to them and encourage them to talk to a teacher or any other person in authority to get help.

This was in line with the views of one District Quality Assurance and Standards Officer who said that "parents who continually monitor and supervise their children are more likely to solve difficult situations before they escalate than those who do not". When one District Education Officer was commenting on parents monitoring their children's activities said that:

As much as it is the duty of parents to spend time with their children in order to understand and guide them, this is not the case. Most parents are too busy for their children. Other children come from morally challenged families hence they influence other children negatively. It is not unusual for parents not to attend school's meeting when policy issues are being communicated. "How then do you involve such parents in school safety?"

The study found that some parents were not adequately involved in the implementation of MOE safety guidelines in schools since they did not fully understand schools' safety policies, were not aware of schools' rules and regulation, failed to understand and honor school's safety protocol and did not encourage positive commitment to school safety for their children. They also did not monitor their children's activities to ensure they were safe. Other issues reported included; failure to attend meetings; help in fundraising activities and not participating in schools' safety planning committee or safety activities.

#### **4.5.3 Involvement of Teachers and Support Staff in the implementation of safety**

##### **Guidelines in schools**

Respondents were asked to suggest on how teachers and support staff can be involved in the implementation of MOE safety guidelines on physical infrastructure in schools. Their responses were as presented in Table 4.26

**Table 4.26: Respondents' Responses on Teachers' and Support staff's Involvement in the Implementation of Safety Guidelines in Schools**

Item	Student		Teachers		H/Teachers	DEOs	DQASOs
	F	%	F	%	F	F	F
Clearly spelling out safety rules and regulations	120	60	34	85	12	3	2
Being alert all through	100	50	38	95	14	3	3
Getting more involved In students' affair	160	80	35	87.5	13	3	3
Identify warning signs	90	45	36	18	12	2	3
Dealing with safety related cases cautiously	190	95	30	75	13	3	3
Being good role models	170	85	25	62.5	10	3	2

According to 120 (60%) students, 34 (85%) teachers, twelve (12) head teachers and five (5) Education Officers, teachers and support staff could be involved in the implementation of safety guidelines by clearly spelling out safety rules and regulations to guide students' behavior. They further stated that these rules should be strategically displayed for all to see and the consequence to be well spelt out. This concurred with cotton (2006) who asserted that rules and regulations regarding use of physical facilities and how to behave while in the school premises help to eradicate disruptive behavior. District Education Officer commented that "when students are

constantly reminded to follow safety rules in which they were involved to formulate, it becomes a lot easy to maintain safe school environment”. Consequently, one District Quality Assurance and Standards officer remarked that “clearly written rules regarding use of school laboratories, libraries, classrooms and dormitories among other facilities assist a great deal in ensuring safety in schools”.

The researcher observed that in most of the schools, rules and regulations had not been displayed in strategic places like classrooms, staffroom and notice boards. Other rules for specific facilities were also lacking in some schools. This could hinder appropriate implementation of safety policies in schools.

Half, 100 (50%) of the students, 38 (95%) teachers, fourteen (14) teachers and all (6) Education Officers indicated that it was important for teachers and support staff to keep their eyes and ears open all the time. By doing this they would be able to notice any unbecoming behavior among students that can result to damage of school property or even loss of lives. This concurred with Hopkins (2005) who asserted that paying attention to what students are saying and doing during class time, play time, meal time among others can enable teachers and support staff to realize bad things going on among students. In line with this, one District Education Officer remarked that “intermingling with students when they are settling down in classes or elsewhere could lead to finding out problems such as bullying, vandalism, planned fights and much more”

Majority of the respondents, 160 (80%) students, 35 (87.5%) teachers, thirteen (13) headteachers and all (6) Education Officers felt that in order to ensure safety, teachers and support staff needed to be more involved in students affairs. They stated that being with students during trips, in their clubs and societies, in welfare

associations and other areas will enable teachers and staff to know what is going on in school. This was in line with Johnson (2002) who postulated that getting involved in students' affair is good way to make adults' presence known as well as showing students you are available for them and they can come to you when there is a problem. One District Education Officer had this to say:

Getting involved in students affair can help teachers and support staff to let trouble makers know that they are aware of what is going on in the school and are likely to find out bad behavior and do something about it.

The researcher observed that, in few schools, teachers and support staff were interacting well with students during out of class hours. This could enhance positive and safe school climate. However, there was little or no interaction among students, teachers and support staff. This could lead to negative behavior among students due to limited supervision and interaction.

Another way of involving teachers and support staff in the implementation of MOE safety guidelines in schools included identifying warning signs. This was stated by 90 (45%) students, 36 (95%) teachers, twelve (12) head teachers and five (5) Education Officers. They felt that if teachers and support staff are able to identify warning signs like restlessness, laxity and general non response to school routines among students, they can easily intervene before unsafe situation could materialize. This view was supported by Kibble (2006) who indicated that it is possible for teachers and other school administrators to predict disruptive behavior by knowing some of the warning signs that could indicate a problem. A District Education Officer stated that "teachers and support staff are better placed to identify warning signs since they are close to students than anyone else in the school"

Overwhelming number of students, 190 (95%), teachers, 30 (75%), head teachers, thirteen (13) and Education Officers (6) stated that teachers and support staff are required to deal with safety related cases cautiously so that they do not cultivate bad feelings among students which can easily trigger a strike in school. According to Randazzo, (2006) when a punishment is applied selectively among students for similar offense, it is more likely to be counterproductive than rehabilitative. This could suggest that, if a student was found doing something that could disrupt school climate, teachers and staff could administer the best method in the problem solving technique to avoid more trouble with a large number of students. Similarly, a large number of students, 170 (85%), teachers, 25 (62.5%), ten (10) headteachers and five (5) Education Officers indicated that the best way for teachers and support staff to be involved in the implementation of safety guidelines was for them to be positive role models to students. This could have positive impact on students since they were likely to emulate them.

Other ways of involving teachers and support staff in the implementation of safety guidelines included; providing guidance to students and educating them on the importance of taking care of the school physical infrastructure. Encouraging students to take care of school facilities and being responsible by rewarding those who maintained the facilities, inspecting infrastructure and repair of the broken properties. Identifying security challenges and reporting them to authority. Removing obstacles from the school grounds such as solid walls, shrubs and trees, ensuring clear visibility of main entrance, locating parking areas so that they are visible, keeping unused building and doors securely locked. Demarcating “out of bounds” areas, eliminating blind spots provided by doorways, fences, buildings and

landscaping and access control as advocated by (Reid, 2000). One District Quality Assurance and Standards Officer commented that:

If teachers and support staff were to be meaningfully involved in the implementation of MOE safety guidelines in schools, they should be seen to be mobilizing various stakeholders to participate in ensuring safety, giving guidance and direction to the students on safety issues, taking charge of various facilities, ensuring that students do not carry any safety threatening gadgets to school and administering first aid to those injured.

When asked whether they involved support staff in the implementation of safety guidelines in schools, 10 head teachers said yes while the rest 5 said no.

Majority of them reported that support staff especially security personnel, laboratory technicians, matrons, cooks, bursars, ground people, clerks and accounts other than handling vital functions in the school were also very close to students and could tell easily when there was uneasiness in the school. This view concurs with Magdla (2006) who indicated that support staff have a duty in the implementation of safety policies in schools because they normally carry out risk assessment and do relevant documentation and devise a safe working practices in their areas of their responsibilities. Ziva (2002) further states that support staff assist in the implementation of safety policies in schools at a level appropriate for their requirement by ensuring that the procedures are explained in a way that students can understand.

The importance of involvement of support staff in the implementation of MOE safety guidelines on physical infrastructure in schools was stressed by one District Quality Assurance and Standards officer who said this:

It is very important to involve support staff in the implementation of safety policy in schools because they assist in the supervision of students and maintain an awareness of emergency procedures in respect of fire, first aid and accident reporting among others. They also ensure that where necessary, the appropriate protective clothing, guards and other equipments are available, in



good condition and are used. They also check electrical equipments before they are used. However some schools do not put a lot of emphasis in support staff involvement in the implementation of safety policies in schools.

According to one District Education Officer:

It is important for all support staff in a school to cooperate with the school management in an effort to implement safety guidelines and in particular, bring to the school administration attention any significant risk or dangerous situations. Yes, the school administration acknowledges the fact that primary responsibility for safety implementation lies with the administrators but all staff have an important contribution to make in identifying hazards and controlling risks.

The study established that though majority of the schools headteachers reported to have involved support staff in the implementation of safety guidelines, there were no proper procedures or documentation on how they were being involved. Similarly, there were no programmes and policies in place indicating how they were being involved. According to Purkey (1984), policies reveal the perceptual orientations of policy makers while a good impression may be made on school members and the environment by developing school programmes that address human needs at large, instead of those that focus on narrow goals.

#### **4.5.4 Headteachers' Involvement in the implementation of Safety Guidelines in Public Secondary Schools in Nairobi West Region**

The study sought information from the respondents on the involvement of headteachers in the implementation of MOE safety guidelines on physical infrastructure in the schools under study. The responses were as stipulated in Table 4.27

**Table 4.27: Respondents' Responses on Headteachers' Involvement in the Implementation of Safety Guidelines in Schools**

Item	Student		Teachers		H/Teachers	DEOs	DQASOs
	F	%	F	%	F	F	F
Placing school safety on the educational agenda	120	60	25	62.5	11	3	3
Maintaining crime reporting and record keeping system	140	70	36	95	12	3	2
Providing safety related rules and regulations	180	90	35	87.5	13	3	3
Design conflict resolution programmes	110	55	30	75	10	2	3

Most respondents, 120 (60%) students, 25 (62.5%) teachers, eleven (11) headteachers and all (6) Education Officers indicated that although headteachers were playing important role in the implementation of government policies in schools, majority of them were not placing school safety as a priority in their educational agenda. This could hamper effective implementation of safety guidelines as stated by Cotton (2006) that school headteachers must make a conscious decision that safe and welcoming school is a high priority and measure their progress towards that end. This view was expressed by one District Education who stated that “headteacher’s commitment to safety in school provides the basis for the enhancement of existing

strategies and the development of new ones to achieve this goal” Another District Education Officer commented that:

Headteachers have a duty to emphasis on school safety as a top educational agenda. School’s mission statement should reflect the context in which the school community wishes academic learning to take place. These statements should enhance school’s position to create and enforce policies promoting a disciplined school climate. Such statements can also markedly increase the validity and credibility of the school’s effort to create and preserve a safe environment.

One hundred and forty (70%) students, 36 (95%) students, twelve (12) headteachers and five (5) Education Officers felt that headteachers could be involved in the implementation of safety guidelines by maintaining crime-reporting and record keeping system. This could help them and the entire school community to know specifically what crimes are being committed in their schools, when and where the crimes are committed and who is involved. This concurred with one District Quality Assurance and standards officer who felt that “available data regarding school safety can ease problem solving process hence increased security in schools”

Most respondents, 180 (90%) students, 35 (87.5%) teachers, thirteen (13) headteachers and all (6) Education Officers maintained that provision of user friendly safety related rules and regulations could ensure consistency of students’ supervision and management. Other safety related regulations cited by the respondents included; development of comprehensive school safety plan, school safety training programmes, crises response plan, safety annual review, selection of new employees and comprehensive locker policy.

One hundred and ten (55%) students, 30 (75%) teachers, ten (10) headteachers and five (5) Education Officers indicated that headteachers could enhance safety guidelines implementation by designing conflict resolution programmes. Such

programmes should stress the unique worth and contribution of every person or group by engaging them in the safe school planning process. Recognizing the impact of cultural influences on a school community's ability to create safe, secure and peaceful schools for all students, one District Education Officer asserted that "cultural influences can directly affect the information, strategies and resources that are used to plan, create and promote a safe and peaceful school as well as to prevent a school crisis"

The study established that, most headteachers were not adequately involved in the implementation of safety guidelines in schools since they had not placed school safety issues as a top priority in educational agenda and had not designed proper safety programmes in their schools. Most headteachers had not maintained school crime reporting and record keeping with a view of enhancing safe and secure schools.

#### **4.5.5 Involvement Board of Governors' in the Implementation of Safety**

##### **Guidelines in Public Secondary Schools in Nairobi West Region**

Headteachers, DEOs and DQASOs were asked how schools' BOGs were involved in the implementation of MOE safety guidelines. Their responses were as presented in Table 4.28

**Table 4.28: Headteachers' DEOs and DQASOs Responses on BOGs  
Involvement in the Implementation of Safety Guidelines in Schools**

<b>Item</b>	<b>Headteacher</b>	<b>DEOs</b>	<b>DQASOs</b>
	<b>F</b>	<b>F</b>	<b>F</b>
Develop structures and operations that spell out the role of different Stakeholders in the Implementation of Safety guidelines	13	3	3
Maintain safe learning environment	15	3	2
Engage all stakeholders in ongoing safety guidelines implementation process	14	3	3
Mobilize resources to implement safety guidelines	15	3	3
Create network and linkages to enhance safety guidelines implementation	12	2	2
Monitor safety guidelines implementation	14	3	3
Enforce MOE safety guidelines implementation	15	3	3

As shown in Table 4.28, out of fifteen headteachers who participated in the study, fourteen (14) of them and all (6) Education Officers reported that BOGs were involved in the implementation of safety guidelines in schools. This was important because according to Moulidi (2008), school's governing body has the responsibility to ensure that all reasonable steps are taken to reduce the possibility of accidents or injury to staff, students and visitors. However, they felt that BOG members should develop structures and operations that spell out the role of different stakeholders in the implementation of Safety guidelines to ensure effectiveness in the implementation

process. Such structures had not been put in place as was reported by the respondents and observation made by the researcher.

One District Quality Assurance and Standards Officer remarking on sound safety structures and operations in the schools remarked that: “in the absence of well coordinated safety structures, programmes and policies, schools cannot succeed in implementing safety guidelines?” He continued:

It is the work BOGs to develop policies and procedures that detail safety and security responsibility of staff and faculty members, security personnel and other support staff. These responsibilities may include monitoring and patrolling specific areas of the school, observing questionable or suspicious activities, and intervening and reporting activities that threaten school safety.

All (15) headteachers and five (5) Education Officers indicated that BOGs were tasked with responsibilities of maintaining safe learning environment. This included providing and maintaining adequate and quality physical facilities in schools, equipments and machinery and ensuring storage and use of substance. This view was supported by one District Education Officer who said that “it was the responsibility of schools’ BOGs to maintain high standards of health and safety to enhance achievement of other performance standards within the school”. The researcher observed that some schools’ BOGs had not ensured safe learning environment as evidenced by dilapidated buildings, inadequate and poorly maintained physical facilities as well as buildings that failed to comply with MOE safety guidelines on physical infrastructure.

Engaging all stakeholders in ongoing safety guidelines implementation process was cited by fourteen (14) headteachers and all (6) Education Officers as one of the ways of involving BOGs in the implementation of MOE safety guidelines. They indicated that since BOGs are schools’ manager they should be centrally placed

to coordinate all other stakeholders to ensure smooth safety guidelines implementation. Twelve (12) headteachers and four (4) Education Officers stated that BOGs in their effort to implement safety guidelines should create network and linkages to enhance implementation process. Most respondents, fourteen (14) headteachers and all (6) Education Officers felt that Schools' BOGs would be more involved in safety guidelines implementation if they monitored safety guidelines implementation as well as enforce their implementation.

Nine (9) headteachers indicated that they requested BOGs to allocate resources on safety guidelines implementation. Some five headteachers reported that BOGs were also carrying out risk assessments during construction of buildings in schools and recommended regular review. This finding concurred with sentiments made by one District Education Officer that:

Some Board of Governors deal seriously with safety related issues. They ensure regular safety inspections of school premises and take action accordingly. Some have made it a habit to receive an annual audit of safety systems and safety standards from their respective headteachers. They discuss safety issues and establish, encourage and maintain positive health and safety culture in schools. To impose respect of school properties on students, some BOGs even punish students to change their behaviour and enhance safety in schools. They even involve parents in the entire process of safety guidelines implementation.

It was established that Board of Governors played various roles in schools such as; organizing workshops, seminars, in service and training courses, academic trips, benchmarking in other schools and motivation of staff through award schemes. Much of this work was academic oriented but little was happening regarding safety guidelines implementation in schools. This is supported by Omolo and Simatwa (2010) who indicated that a lot of research was being conducted on academic performances while very few were available on safety related issues in schools.

#### 4.5.6 Involvement of Government in the Implementation of MOE Safety

##### Guidelines in Public Secondary Schools in Nairobi west Region

Headteachers, DEOs and DQASOs were asked to comment on involvement of government in the implementation of MOE safety guidelines on physical infrastructure. Their responses were as indicated in Table 4.29

**Table 4.29: Headteachers' DEOs and DQASOs Responses on Government's Involvement in the Implementation of Safety Guidelines in Schools**

<b>Item</b>	<b>H/Teacher</b>	<b>DEOs</b>	<b>DQASOs</b>
	<b>F</b>	<b>F</b>	<b>F</b>
Formulating and clarifying safety related policies	13	3	3
Carrying out standards assessments	15	3	3
Conducting school safety trainings	14	2	3
Funding various projects to enhance school safety	14	3	2
Monitoring compliance with school safety requirements	13	3	3

Thirteen (13) headteachers and all (6) Education Officer stated that government, through the Ministry of Education and other agencies was actively involved in the implementation of safety guidelines. Majority (13) of the headteachers and all (6) Education Officers indicated that district Education Officers usually clarified policy stipulations and encouraged them towards achieving the policy goals. This was in line with Squelch (2001) who states that education managers should encourage involvement of all stakeholders in the safety guidelines implementation because this develops a sense of ownership and commitment. It also helps in vision building, clarifying policies to users, leading and participating in change process.



All (15) headteachers and Education Officers (6) indicated that Quality Assurance and Standards officers were carrying out standards assessments in their schools. They highlighted various safety threats in physical infrastructure and gave recommendations. However, these assessments were not regular and the officers took a lot of time before going back to schools to ascertain whether the recommendations were adhered to or not. This concurs with Omolo and Simatwa (2010) who stated that shortage of Quality Assurance and Standards officers in the field was impacting negatively on MOE safety guidelines implementation. All DEOs and DQASOs interviewed felt that effective leaders are the ones who assess implementation of government policies to establish how schools were doing. This assessment according to Hord (1995) motivates implementers to commit themselves to the implementation process. Regarding assessments, one District Education Officer said that:

Assessment reports show that some physical infrastructure in some schools are deplorable and in bad state of repair, requiring renovation or demolition but there is a limit to how far we can go in this matter, I remember closing down and withdrawing registration certificate of one private school whose facilities were not conducive for learning, but hardly did one year lapse before the school was back and full functional without my knowledge. It was a total blow to this office since we had no voice to address other schools that were facing similar circumstances.

Respondents, fourteen (14) headteachers and five (5) Education Officers stated that government was involved in conducting school safety trainings. Despite this effort, it was reported that few schools had formal procedures in place to ensure that sufficient training was provided to all students, teachers and school administrators. This concurred with the views of one District Quality Assurance and Standards Officer who remarked that:

A comprehensive school safety training programme is important. This should meet the needs of classroom teachers and administrators. In-service training regarding student behaviour management should be offered for teachers and others in students' discipline. In order to ensure safety in schools, teachers

must develop skills and strategies for shaping positive learning environments, controlling disruptive students' behaviour and dealing with difficult parents.

The researcher observed that in some schools there was no evidence of school safety knowledge since most fire extinguishers were not of the recommended size, were inappropriately located and were not in working condition. Other school buildings had not complied with safety standards requirements.

Fourteen (14) headteachers and five (5) Education Officers stated that government was funding various project to enhance safety in schools. They reported that through economic stimulus project, government was putting up centres of excellent in every constituency to address inadequacy and quality of physical infrastructure in schools. This initiative could enhance implementation of MOE safety guidelines since they were built based on strict requirement from both MOE and Ministry of Public Works. The researcher observed that, most of the recent buildings in schools put up under Economic Stimulus projects had complied with the majority of safety requirements.

Monitoring compliance with school safety requirements was cited by thirteen (13) headteachers and all (6) Education as one of the ways how government was involved in the implementation of safety guidelines in the schools under study. This concurred with Reid (2000) who stated that school boards are responsible for complying with legislation and policies. Through monitoring of compliance with safety requirements, the government could receive feedback to enable them introduce new or revise school safety policy.

The research established that government was not adequately involved in the implementation of Ministry of Education safety guidelines on physical infrastructure. This was due to the fact that formulation and clarification of safety policies were not

reviewed regularly, standards assessments were not carried out in schools continuously to advice on safety requirements. Schools' safety trainings were not conducted on regular basis to equip stakeholders with relevant skills to handle safety concerns in schools. However, Economic Stimulus projects in schools had complied with some safety requirements.

**Table 4.30: Distribution of the headteachers' DEOs and DQASOs Responses on NGOs' and CBOs' Involvement in the Implementation of Safety Guidelines in Schools**

Item	H/Teachers		DEOs		DQASOs	
	Yes	No	Yes	No	Yes	No
	F	F	F	F	F	F
Whether NGOs and CBOs were involved in school safety	3	12	1	2	1	3
Whether they funded projects	8	7	3	-	3	-
Whether they advised on safety compliance	5	10	-	3	1	2
Whether they trained on school safety	3	12	1	2	1	2

Few respondents, three (3) headteachers and two (2) Education Officers indicated that they involved Non Governmental and Community Based Organizations in the implementation of MOE safety guidelines on physical infrastructure in schools. Through researcher's observation there were few safety initiatives that had been initiated by NGOs and CBOs. Overwhelming number of headteachers (10) and Education Officers (4) reported that they did not involve NGOs and CBOs in the implementation of safety guidelines in schools. This could be attributed to the fact that in public schools various organizations were denied direct access to schools

unless they were approved by the Ministry of Education as stated by (Bandi, 2011). This concurred with the remarks made by one District Quality Assurance and Standards Officer that “most NGOs who come to this office requesting to access schools do not have safety agenda as their top priority”

Asked Whether NGOs and CBOs funded projects in schools, eight (8) headteachers and all (6) Education Officers said yes. They cited major NGOs like UNICEF, USAID, Action Aid and SOS as having safety initiatives in schools. Asked how they involved NGOs in the implementation of safety guideline in their schools, two (2) headteachers reported that, other than assisting them to write proposals to request for finances, they also invited them to schools to sensitize school community about safety issues, training students on fire drills and donation of safety equipments such as fire extinguishers, alarm systems among others. This concurs with Nthenya (2011) who indicated that active involvement of Nongovernmental organizations and other donors is critical if vision 2030 in provision of free and quality education is to succeed. One District Quality Assurance and Standards Officer remarked that:

Some NGOs were constructing sanitation facilities in schools, modern school kitchens and laboratories. This was not only enhancing delivery of curriculum but also increased retention and completion rates as well as providing safe learning environment.

One District Education Officer indicated that community based organizations were not actively involved in the implementation of safety guidelines in schools as it used to happen during 1970s when community were coming together to construct schools. He said that:

In early years, communities would pull resources together (harambee) and construct a school within the community. Once the school was constructed, the community would then petition the government to provide the school with teachers and other necessary provisions which the government normally did.

The researcher observed that NGOs and CBOs were not adequately involved in safety guidelines implementation in schools. However, in few cases where such involvement was evident, they were not monitoring whether safety requirements were adhered to especially in construction of buildings.4.5.7 Involvement of school surrounding community in the implementation of MOE safety guidelines on physical infrastructure in schools

**Table 4.31: Respondents' responses on the involvement surrounding community in the implementation of safety guidelines in schools**

Item	Student		Teacher				H/Teacher		DEOs		DQASOs			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No		
	F	%	F	%	F	%	F	%	F	F	F	F		
Whether surrounding school communities were involved in Safety implementation	90	45	110	55	10	25	30	75	5	10	1	2	-	3
Whether it was necessary to involve s/c in school Safety	100	50	100	50	38	95	2	5	14	1	3	3	3	3
Whether there was Positive relationship between s/c and schools to enhance safety	50	25	150	75	4	10	36	90	3	12	1	2	1	2

As shown in Table 4.31 few respondents, 90 (45%) students, 10 (25%) teachers, five (5) headteachers and one (1) Education Officer stated that surrounding school community was involved in the implementation of MOE safety guidelines in the schools under study. This could compromise safety standards in the concerned schools since according to Sanders (2004) positive relationship between surrounding community and schools can improve risk prevention, intervention and response. Some

respondents stated that surrounding community was very dangerous because they carried out illegal businesses such as drug peddling and stealing. Sometimes they collaborated with students to commit crimes. One District Education Officer commented that:

Involvement of surrounding communities in the implementation of safety guidelines in schools is sometimes hard because there is a tendency of both of them to regard each other with a great deal of distrust. Each has developed a sharp eye for the weaknesses of the other. It is not difficult to find professional educators who characterize communities as uninformed “amateurs” hardly qualified to contribute systematically to the education of young people.

Similarly, a District Quality Assurance and Standards Officer remarked that:

“Strong positive relationship based upon trust and cooperation between surrounding communities and schools can and do play an important role in improving schools’ safety and academic performance”

In as much as schools were not adequately involving surrounding communities in the implementation of safety guidelines, overwhelming number of respondents, 100 (50%) students, 38 (95%) teachers, fourteen (14) headteachers and all (6) Education officers felt it was necessary for surrounding communities to be involved in school safety. They reported that positive relationship between surrounding school community and schools provide a holistic environment in which children are raised with a unified set of expectations and behaviour. This concurred with Warren (2004) who postulated that when community members are engaged in the implementation of safety guidelines in schools, they can work together with schools’ administrators to develop a common vision for school reform. Similar views were echoed by a District Education Officer who commented that: "Schools are more safe, effective and caring places when they are an integral and positive part of the community. This enhances

academic performance, fewer discipline problems, higher staff morale, and improved use of resources”

One hundred and fifty (75%) students, 36 (90%) teachers, thirteen (13) headteachers and all (6) Education Officers indicated that there was no positive relationship between surrounding communities and schools. Commenting on the relationship between surrounding communities and schools, one District Education officer commented that:

Some surrounding communities engage in illegal activities such as brewing alcohol, drug and substance dealing and even prostitutions. Cases have been reported in this office of some students being spotted in surrounding areas engaging in behaviour forbidden in the school compound making them vulnerable to criminal enticement. This behaviour can likely be transferred to schools and impinge on safety and security of the school.

The few respondents, 50 (25%) students, 4 (10%) teachers and two (2) headteachers stated that surrounding communities were involved in the implementation of safety guidelines indicated that neighbouring community were positioned to serve as critical eyes and ears for a school, before and after school hours. They felt that no security service could compete with school neighbours in terms of providing a continual presence as well as in commitment to school’s safety needs. This concurs with Nthenya (2011) who indicated that neighbours are more likely to spot vandals in the act than are police or private security. She further asserted that some school communities have had success in having law enforcement officers contact the owners of rental property where criminal activities are being encountered near schools and many landlords have evicted such tenants.

They further stated that sometimes they called upon students for community service in the neighbourhood. This was used to discourage immediate problems while

building long term goodwill. This positive interaction could build shared sense of belonging leading to mutual assistance of either students or neighbours are in need of help. Suggesting how school surrounding community could be involved in the implementation of safety guidelines, one District Quality Assurance and standards officer said that:

School administration can enlist some neighbours as allies and provide them with phone numbers for contacting the school administration. In some cases it may be appropriate to entice them to help by providing cell phones for them and even empowering some of them as quasi- official school caretakers or allies. You could even go a step further and reward them for any alert they made. This is a cost effective alternative to paid security.

The gap between school administration and the community could be attributed to the fact that many school administrators are not adequately trained on how to work with the community to enhance their administration. According to Squelch (2001) concerned bodies fail to educate school managers on how schools and the community should work together to create a peaceful school environment because schools alone cannot function as a panacea for safety related problems.

The researcher observed that some schools were sharing facilities like playgrounds and halls with the surrounding communities. This positive relationship could enhance implementation of safety in schools. However, the study established that surrounding communities were not being adequately involved in the implementation of safety guidelines in the schools under study. Negative relationship between surrounding communities and schools which was negatively affecting safety guidelines implementation was noted. It was established that majority of the respondents felt it was necessary to involve schools' surrounding community in the implementation of safety guidelines to minimize discipline problems and maximize safety in schools.



#### **4.6 Research question 4: Students, Teachers and Head teachers Attitude towards Implementation of MOE Safety Guidelines on Physical Infrastructure in Public Secondary Schools in Nairobi West Region**

In this section, the attitude of students, teachers and head teachers towards implementation of Ministry Of Education safety guidelines on physical infrastructure was presented in the subsequent subsections. According to Bohner and Wanke (2004) a stakeholder's attitude towards policy implementation may influence his or her behaviour.

##### **4.6.1 Students' Attitude towards Implementation of Safety Guidelines in Public Secondary Schools in Nairobi West Region**

Students were asked to indicate whether they strongly agreed (SA), agreed (A), not sure (NS), disagreed (D) or strongly disagreed (SD) towards various statements regarding the implementation of MOE safety guidelines. Students' responses on their attitude towards implementation of safety guidelines on physical infrastructure are presented in Table 4.32

**Table 4.32: Students' Responses on Attitude towards Implementation of MOE Safety Guidelines**

Statements	SA		A		NS		D		SD	
	F	%	F	%	F	%	F	%	F	%
	[* scr]		[* scr]		[* scr]		[* scr]		[* scr]	
MOE safety guidelines on Physical infrastructure have been implemented in the school	24	12.0	39	19.5	57	28.5	50	25.0	30	15
	[0.7]		[0.98]		[1.4]		[1.3]		[0.8]	
There is awareness among school members on how to handle disaster	28	14	50	25	29	14.5	40	20	53	26.5
	[0.7]		[1.3]		[0.73]		[1.0]		[1.3]	
We have adequate sanitation facilities	22	11	50	25	13	6.5	49	24.5	66	33
	[0.55]		[1.25]		[0.33]		[1.23]		[1.65]	
There are safe and secure playgrounds in our school	58	29	72	36	13	6.5	26	13	31	15.5
	[1.45]		[1.8]		[0.33]		[0.65]		[0.78]	
There is a strong guidance and counselling department in the school	41	20.5	77	38.5	28	14	30	15.0	24	12
	[1.02]		[1.93]		[0.7]		[0.75]		[0.6]	
Most of staff members are housed in the school compound	17	9	30	15	25	12.5	64	32	64	32
	[0.45]		[0.75]		[0.63]		[1.6]		[1.6]	
Electrical fittings are firmly fixed and can't cause any damage	44	22	51	25.5	24	12	41	20	40	20
	[1.1]		[1.28]		[0.6]		[1.03]		[1]	
<b>Total Score</b>	5.87		9.29		4.72		7.56		7.73	
<b>Average Score</b>	0.84		1.33		0.67		1.08		1.10	

Asked whether MOE safety guidelines on physical infrastructure had been implemented in their school, 80 (40%) students either strongly disagreed or disagreed while 63 (31.5%) either strongly agreed or agreed. It is notable that 56 (28%) students were not sure of this statement. This information indicated that most students, 136 (68%) had negative attitude on Ministry of Education safety guidelines hence could

not tell whether they had been implemented or not. In line with this view, Nthenya (2011) indicated that although students are important players during safety guidelines implementation process, they are usually ignored during decision making yet the degree of implementation success is determined by students' behaviour change. The fact that some 63 (31.5%) students felt that safety measures had been implemented in their schools shows some level of positive attitude in that some school administrators were making an effort in ensuring safety in their schools as well as engaging students in the exercise.

Regarding whether they were fully aware of how to behave in case of a disaster in school, 105(52.5%) students were not sure, disagreed or strongly disagreed while 78(39%) students either strongly agreed or agreed. This showed that majority of the students had negative attitude since they had not been trained on disaster preparedness. This information concurs with the earlier one where students said they had not read safety manual for schools. The same views were expressed by Kipngeno and Wambua, (2009) in their study which established that teachers and students in schools in Turkana District were poorly prepared to respond to fire outbreak and destructive violence. Omolo and Simatwa (2010) reported that there was downward trend in conducting fire drills in schools.

On the adequacy of clean sanitation facilities in the school, slightly more than half of the students 115 (57.5%) either disagreed or strongly disagreed. This showed negative attitude towards this statement. It had earlier been noted that, most schools lacked adequate, clean and well maintained sanitation facilities which could compromise health of learners. Magdla (2006) noted that issue of toilets is never given adequate priority and respect by school administration. Slightly over a third of them 78 (39%) were however positive about having adequate and clean sanitation

facilities in their schools.

In response to whether school playgrounds were safe and secure, majority of the students 130 (65%) either agreed or strongly agreed an indication of positive attitude towards this statement. This was encouraging because students were not likely to be injured during games and sports activities. This agreed with Gliem (1993) who asserted that it is important to properly maintain school play grounds for various sporting activities. These grounds should be clearly demarcated and marked, should be neat, beautiful and safe for use by learners, staff, parents and community members, at all times. However, almost a third of them 57 (28.5%) differed, showing negative attitude towards the statement. This showed there were safety concerns related to playgrounds that needed to be addressed.

In their response to whether most of the staff were housed in the schools compound, majority of the students, 152 (76%) were not sure, disagreed or strongly disagreed. This reflected negative attitude. As earlier reported, most teachers and headteachers were not residing in the school compound irrespective of staff houses being available. They cited inadequate security in the community and student related incidences especially during strikes. Omolo and Simatwa (2010) had also noted that, headteachers and other staff were not staying in the school compound to ensure safety even though it was a Ministry of Education directive for all headteachers to reside in the school compound.

There were varied responses on whether electrical fitting were firmly fitted in the school under study. Almost half of the students (47.5%) either strongly agreed or simply agreed that electrical fitting were firmly fixed. This was interpreted as a positive attitude towards this statement. It concurred with Reid (2000) who asserted that electrical fittings are supposed to be firmly fixed in order to avoid jeopardizing

learners' safety. However, a considerable number of them (40%) differed, indicating that electrical fitting were not firmly fitted and could endanger lives of the users.

The average score obtained from the students who strongly agreed was at 0.8 while those who agreed was 1.3. The total score of the students who either agreed or strongly agreed with statements on the implementation of MOE safety guidelines was 2.1. The total average score of the students who either disagreed or strongly disagreed was 2.2. The scores showed mixed attitude among students towards the implementation of MOE safety guidelines.

#### **4.6.2 Teachers' Attitude towards Implementation of Safety Guidelines in Public Secondary Schools in Nairobi West Region**

In order to establish attitude of teachers towards implementation of safety guidelines in schools, teachers were asked to indicate the extent to which they agreed or disagreed on the following statements: MOE safety guidelines on physical infrastructure are unattainable, The school management has given a lot of emphasis on safety standard measures, Teachers are often trained on disaster preparedness, The school has a firm perimeter fence, The school has sufficient first aid facilities, Most teachers reside in the school compound. The school has adequate and clean sanitation facilities, and Playground are safe for students' use. Their responses were as presented in table 4.33

**Table 4.33: Distribution of responses on Teachers' Attitude towards Implementation of Safety Guidelines**

Statements	SA		A		NS		D		SD	
	F	%	F	%	F	%	F	%	F	%
		[*scr]		[*scr]		[*scr]		[*scr]		[*scr]
MOE safety guidelines on physical infrastructure are attainable	7	17.9	11	28.2	5	12.5	10	25.6	7	17.9
		[0.9]		[1.4]		[0.6]		[1.3]		[0.9]
School management has given emphasis on safety standard measures	7	17.9	17	43.6	7	17.5	5	12.8	4	10.3
		[0.9]		[2.2]		[0.88]		[0.6]		[0.5]
Teachers are often trained on disaster preparedness	3	7.7	3	7.7	8	20	11	28.2	1	38.5
		[0.4]		[0.4]		[1]		[1.4]	5	[1.9]
The school has a firm perimeter fence	2	5.1	15	38.5	1	2.5	13	33.3	9	23.1
		[0.3]		[1.9]		[0.1]		[1.7]		[1.2]
School has sufficient first aid facilities	1	2.6	13	33.3	6	15	14	35.9	6	15.4
		[0.1]		[1.7]		[0.75]		[1.8]		[0.8]
Most teachers reside in the school compound	2	5.1	5	12.8	1	2.5	15	38.5	1	43.6
		[0.3]		[0.6]		[0.13]		[1.9]	7	[2.2]
School has adequate and clean sanitation facilities	6	15.4	15	38.5	6	15	8	20.5	5	12.8
		[0.8]		[1.9]		[0.75]		[1.0]		[0.6]
Playground are safe for students to play in	6	15.4	17	43.6	8	20	5	12.8	4	10.3
		[0.8]		[2.2]		[1]		[0.6]		[0.5]
Total *Scr		4.5		12.3		13.1		10.3		8.6
Average *Scr		0.6		1.5		0.65		1.3		1.1

\* scr - score

In terms of attainability of MOE safety guidelines on physical infrastructure, it was noted that teachers had varied responses. Almost half of the teachers 18 (45%) were positive about attainability of safety guidelines. According to Heller and Greenleaf (2007) despite the types and amounts of knowledge that administrators and teachers may have on the implementation of safety policies in schools, it is their

beliefs and attitudes that are more likely to dictate their actions in the implementation process. However, more than half, 21 (52.5%) of the teachers felt that implementation of Ministry of Education safety guidelines on physical infrastructure was unattainable. This showed negative attitude towards this particular statement. This could be attributed to inadequate training on implementation of safety policies in schools among other factors. This view is enhanced by Cotton (2006) who asserted that proper timing and training is important for any success in policy implementation and there is need for continuous orientation and workshops to be held throughout the implementation process.

With reference to school management's role in ensuring safety standard measures are met in school, majority of the teachers 24 (61.5%) stated that school management in their respective schools had placed emphasis on safety measures. This is consistent with the provisions of MOE safety guidelines manual which states that it is the responsibility of the school management to supervise, manage, evaluate and improve the school's physical infrastructure in order to ensure safety needs.

It is the duty of a school management to appoint safety committee members, to repair and maintain school facilities to make it safer and to disseminate reading material about safety (MOE, 2008). However, 15 (37.5%) teachers were not sure, disagreed or strongly disagreed with this statement. This negative attitude could be attributed to the fact that school administrators and managers were more concerned with academic performances more than other areas in the school (Moulidi, 2008).

Majority of the teachers 26 (67%) were negative on whether they had received training on disaster preparedness. The importance of this knowledge is brought out by Trowler (2003) who states that teacher training on disaster preparedness is one of the

key elements that may be employed in enhancing safety within the school. If they are not adequately or well prepared, then there may be a critical issue when it comes to ensuring safety in school.

Slightly more than half of the teachers 22 (56.4%) were negative on whether there were perimeter fences in their schools. This pointed out that, most schools did not have perimeter fence to enhance security hence exposing students and staff to safety threats. According to Glickman (2004) a parameter fence is quite essential in enhancing security in the school because it prevents truancy by controlling when children can leave school compound. In addition, the personal safety of staff and visitors is enhanced by a school fence. Chumba (2006) further states that a strong perimeter fence with a secure gate controls access by keeping intruders out and prevent students from leaving school during school hours.

On whether there were sufficient first aid facilities in schools, majority, 21 (52.5%) of the teachers responded negatively. On the other hand 14 (35%) teachers felt that first aid facilities were sufficient. This information showed that in most schools, there were no first aid facilities to be used in case of a disaster, this is risky because according to Squelch (2001) it is important for school administration to secure first aid box together with other relevant facilities that can help in time of disaster. Those concerned should also be adequately equipped with required skills and knowledge.

The findings showed that most teachers in the schools under study did not reside in the school compound. An overwhelming number of teachers 32 (82%) either disagreed or strongly disagreed to whether they resided in the school compound. The same finding was established in the students' attitude. The ministry of education



guidelines indicates that since teachers and head teachers are crucial in implementation of each policy in a school, housing them in the school compound could enhance school safety to a great extent (MOE, 2008). Omolo and Simatwa (2010) in a study on the implementation of safety policies in schools in Kisumu East and West found that most teachers were not residing in the houses provided in the school compound. This resulted to inadequate implementation of MOE safety guidelines.

On the adequacy of clean sanitation facilities, slightly more than half of the teachers 21 (54%) were positive. This contrasted the views of the students, majority of whom felt that there were no adequate and clean sanitation facilities. This could be due to the fact that, most school administrators were putting emphasis on their own sanitation facilities while neglecting those for students.

There was however a considerable number of teachers 18 (46.1%) who indicated that these facilities were inadequate and poorly maintained. This indicated that a lot of emphasis on sanitation facilities was required if safety guidelines on physical infrastructure were to be implemented in secondary public schools in Nairobi West region, Nairobi County.

In terms of safety of play grounds in schools, it was affirmed by 24 (59%) teachers that indeed the school playgrounds were safe. This could be attributed to the fact that co-curricular activities were given a lot of emphasis by Ministry of Education (MOE, 2008). However a good number of teachers still felt that playgrounds were not safe enough. They stated that playgrounds were not levelled, there were gaping holes, overgrown shrubs and sometimes spiked wires were used as fences. According

to Reid (2002) schools' play grounds should provide necessary security to the users devoid of any disruptive objects.

The average score obtained from the teachers who strongly agreed was 0.6 while those who agreed was 1.5. The total score of the teachers who either agreed or strongly agreed with statements on the implementation of MOE safety guidelines was 2.1. On the other hand, the total score of the teachers who either disagreed or strongly disagreed was 2.4. Thus, teachers appeared to have had mixed attitude towards the implementation of MOE safety guidelines on various physical infrastructure in the schools under study.

#### **4.6.3 Headteachers' Attitude towards Implementation of Safety Guidelines in Public Secondary Schools in Nairobi West Region**

Attitude of headteachers towards implementation of Ministry of Education safety guidelines on physical infrastructure in schools was as presented in Table 4.34. The scale used ranged from Strongly Agree to Strongly Disagree with SA=5, A=4, NS=3, D=2 and SD=1

**Table 4.34: Distribution of Responses on Head teachers' Attitude towards Implementation of Safety Guidelines**

	<b>SA F</b>	<b>A F</b>	<b>NS F</b>	<b>D F</b>	<b>SD F</b>
Abandoned and uncompleted buildings are unsafe to learners	10 [3.3]	3 [1]	-	1 [0.3]	1 [0.3]
I regularly check visitors' book to ascertain those who access the school	7 [2.3]	2 [0.7]	1 [0.3]	2 [0.7]	1 [0.3]
The playgrounds are safe for use by learners	6 [2.0]	5 [1.7]	2 [0.7]	1 [0.3]	1 [0.3]
There are adequate toilets/closets for both girls and boys.	2 [0.7]	2 [0.7]	2 [0.7]	5 [1.7]	4 [1.3]
The school has clean and adequate water supply.	4 [1.3]	6 [2.0]	-	3 [1]	2 [0.7]
I identified the potential safety hazards in the school with a view of taking preventive measures	3 [1]	2 [0.7]	4 [1.3]	5 [1.7]	1 [0.3]
Due to financial constraints of the MOE safety requirements, it is not possible to implement them	8 [2.7]	4 [1.3]	-	2 [0.7]	1 [0.3]
There is adequate security lights in schools	7 [2.3]	1 [0.3]	4 [1.3]	2 [0.7]	1 [0.3]
fire fighting equipments are available in schools	1 [0.3]	1 [0.3]	1 [0.3]	4 [1.3]	8 [2.7]
The school has constituted a strong and effective safety committee.	2 [0.7]	1 [0.3]	1 [0.3]	2 [0.7]	9 [3]
<b>Total score</b>	<b>16.6</b>	<b>9</b>	<b>4.9</b>	<b>9</b>	<b>9.5</b>
<b>Average score</b>	<b>[1.7]</b>	<b>[0.9]</b>	<b>[0.7]</b>	<b>[0.9]</b>	<b>[1.0]</b>

The study established that majority (12) of headteachers felt that abandoned or incomplete buildings were unsafe. This concurred with findings of a study conducted by Magdla (2006) that abandoned buildings served as hideouts for criminals where illegal activities were conducted in schools.

Two (2) headteachers either disagreed or strongly disagreed with the statement that abandoned or incomplete buildings were unsafe. This could be due to the fact that with adequate surveillance such places could be secured as Clark (2002) states that

proper school design ensures that all physical facilities in the school are in full view of school administration.

On whether they checked visitors books regularly, seven (7) headteachers strongly agreed while two (2) of them agreed. This shows that majority (9) of them were committed to ensuring safety in schools by monitoring visitors entering the school. This was in accordance with Squelch (2001) who stated that maintaining clear and up to date records regarding those visiting the school would deter people with bad motives to enter the school compound.

As compared to students, more headteachers (6) strongly agreed to the statement that play grounds were safe for use by students. This could be attributed to the fact that they are instrumental in enhancing safety of play grounds hence the positive attitude. The fact that two (2) headteachers were not sure of this statement could point to lack of knowledge on Ministry of Education safety guidelines in order to ascertain whether play grounds were safe or not. Nthenya (2011) asserted that most headteachers had not read Safety Standards Manual for schools irrespective of having them in their offices due to a lot lack of time.

Some (5) headteachers either strongly agreed or agreed with the statement that there were adequate sanitation facilities for both boys and girls in their schools. This positive attitude could imply that the situation was not as bad as had been observed and reported or these respondents were withholding the truth regarding the actual situation, Glickman (2004) asserted that most administrators would not highlight issues which they had not addressed adequately. Majority (9) of headteachers expressed negative attitude towards adequacy of sanitation facilities in schools by either strongly agreeing or disagreeing with this statement. This evidenced the fact

that there was shortage of sanitation facilities in schools which could affect health of students as well as compromise quality of learning. An earlier study by Omolo and Simatwa (2010) indicated that there was dire need of adequate, clean and well maintained sanitation facilities in public secondary schools in Kisumu West district.

Seven (7) headteachers agreed to the statement that there was clean and adequate water supply in schools. This indicated that healthy and hygienic conditions could be maintained in schools. This concurs with Moulidi (2008) who stated that schools with clean running water were more likely to minimize diseases than those without. It is notable that this statement had highest (5) responses on the category of not sure. This could be due to the fact that most schools sourced their water from Nairobi water and Sewerage Company hence relied on them to clean the water. Three (3) headteacher disagreed with this statement. This concurred with Dierkx, (2003) who stated that some schools in Nairobi had their water contaminated when the sewers busted and got their way into the clean water systems. This could cause health hazards to the users.

On whether they identified potential hazards with a view of taking preventive measures, more than half (8) of headteachers had negative attitude since they either strongly disagreed or disagreed with this statement. This implied that there were no quality assurance and standards mechanisms in place to ensure safety of physical infrastructure in schools. According to Fenker (2004), preventive measures help schools' administrators to avoid hazards in schools. He further asserted that such measures save costs and time and it is an integral part of the management practice in societies where preventive culture is well established. However, five (5) headteachers either strongly agreed or agreed with this statement, this positive attitude indicated that they were in a position to mitigate preventable disasters. According to Nderitu

(2008), school accidents can happen at any time, nevertheless, maximum precautions should be undertaken to avoid preventable accidents. She further explained that it would be commendable to neutralize imminent disasters or minimize the effects, but it would be disastrous if caught unawares and unprepared.

Overwhelming number (12) of headteachers either strongly agreed or agreed that financial constraint was hindering implementation of safety guidelines in schools. According to Zivai (2002) successful policy implementation must be adequately budgeted for in order to purchase all the necessary resources in advance. One District Education Officer stated that “supply of adequate resources in schools is an important form of support from education managers”. Only three (3) headteachers either disagreed or strongly disagreed with this statement while none was not sure of whether financial constraint prevented implementation of safety guidelines in schools.

Majority (8) of the headteachers expressed positive attitude towards availability of security lighting in schools by strongly agreeing or strongly agreeing to this statement. This indicated that, in most of the schools under study, there was electricity. This could enhance safety in school as Nthenya (2011) stated that well lit school compound provides opportunity for school managers to detect any illegal activity within the school premises.

Four (4) headteachers were not sure of this statement. This could mean that though electricity was available in school, it was not possible to light security lights always due to increased electricity bills which schools could not cope with. This concurred with Magdla (2006) who established that most schools especially those located in informal settlements were plugged in darkness since they were unable to pay their electricity bills. Three (3) headteacher either strongly disagreed or disagreed

with this statement an indication that there was enough security lighting in the school which could impact positively to safety of the school's physical infrastructure.

On availability of fire fighting equipments, majority (12) of headteachers either strongly disagreed or disagreed while only three (3) , one each, strongly agreed, agreed and not sure. This indicated that most schools under study were ill equipped with fire fighting equipments. This concurred with the findings of a study conducted by Nderitu (2008) who established that for any school to be prepared for fire related disasters, they should acquire adequate fire fighting equipments which are in good state of repair and ensure they are inspected regularly. Only two (2) headteacher strongly agreed or disagreed with this statement.

Headteachers' negative attitude towards availability of safety committees was evidenced by the fact that majority (11) of them either strongly disagreed or disagreed with this statement. This implied that safety committees had not been constituted in schools irrespective of the Ministry of Education requirement that every school should constitute a safety sub- committee which should be chaired by a BOG member and whose secretary should be the headteacher (MOE, 2008).

On average, headteachers had positive attitude towards Ministry of Education safety guidelines implementation in public secondary schools in Nairobi west region. This was evidenced by the fact that the mean score for those who either strongly agreed or agreed to the given statements was 2.6 while for those who strongly disagreed or disagreed was 1.9. There were others, (0.7) who were not sure about the implementation of MOE safety guidelines in schools. This could mean that there were some head teachers who had mixed reaction towards implementation of MOE safety guidelines in school. Some felt that much had been done to ensure effective

implementation of safety guidelines in schools while for others, there were number of issues that needed to be checked to ensure effective implementation of safety guidelines. This concurred with Mwangi (2008) who in his study on the status of disaster preparedness in public secondary schools in Kiharu division, Murang'a District found that negative attitude by head teachers towards safety guidelines had affected effective implementation. This was attributed to the many roles that head teachers had besides implementation of safety guidelines.

The study established that although most respondents had mixed feelings towards implementation of Ministry of Education safety guidelines on physical infrastructure in schools in the area under study, they all felt it was important to enhance safety in schools by involving all stakeholders and providing adequate resources for safety guidelines implementation process.

#### **4.7 Research Question 5: Measures to Enhance Implementation of MOE Safety Guidelines on Physical Infrastructure in Public Secondary Schools in Nairobi West Region**

The study sought information on how to enhance implementation of MOE safety guidelines on physical infrastructure in schools. Students', teachers', head teachers' and Education officers' responses were as shown in table 4.36 and as subsequently discussed.



**Table 4.35: Distribution of Students', Teachers' and Headteachers' Suggestions on how to Enhance Implementation of MOE Safety Guidelines**

Suggestions	Students		Teachers		Head-teachers
	F	%	F	%	F
Engage professionals in the construction of Schools' physical facilities	80	40	35	87.5	11
Continuous renovation and Maintenance of facilities	150	75	38	95	12
Quality Fencing of the school	50	25	20	50	9
Adequate and professional security personnel	70	35	22	55	10
Child Friendly dormitories, classrooms, dormitories, libraries and other special rooms	133	66.5	37	92.5	8
All stakeholders to be involved in school safety issues	100	50	25	62.5	12
Well constituted safety committees with terms of reference	20	10	30	75	10
Sound safety programmes and policies	40	20	35	87.5	14
Cordial relationship schools and community					
Resources availability	80	40	36	90	13
Training and capacity building	15	7.5	34	85	15
Effective communication	185	92.5	39	97.5	13
Monitoring and evaluation of implementation process	45	22.5	22	55	15

### **Engagement of Professionals in Construction of Schools' Buildings**

In order to enhance implementation of safety guidelines on physical infrastructure in schools under study, 80(40%) students, 30 (87.5%) teachers and eleven (11) headteachers suggested engagement of professionals in construction of schools' buildings to ensure required standards. Similar views were expressed by Chumba, (2006) who asserted that it is easy for professional planners and architects to generate excellent norms tailored to specific needs in a school. Five (5) education

officers out of the six (6) felt that school administrators should seek services of qualified personnel to carry out construction work in schools as explained by one District Quality Assurance and Standards officer:

In some schools, construction of some buildings is poorly done without consideration of laid out specification from both Ministry of Education and Ministry of Labour. Some have even collapsed before completion. This, other than putting people's lives at risk is also costly to the government, parents and other funders.

### **Continuous Renovation and Maintenance of Schools' Physical Infrastructure**

Responses on the need for continuous renovation and maintenance of physical infrastructure were as follows; students, 150 (75%), teachers, 38 (95%) and headteachers, twelve (12). It is notable that this suggestion had very high number of responses an indication that majority of buildings in schools under study were in bad state of repair and unsafe for use. This concurred with Fenker (2004) who maintained that several school buildings that are over thirty years have never undergone renovation or any form of modernization in spite of the changes in the educational system. Moulidi (2008) explained that an aspect of school management that is generally overlooked is facility maintenance because when new buildings are constructed and taken over by the appropriate authorities, practically no attention is paid to the maintenance of such buildings. This suggestion was further enhanced by one District Education officer who stated that:

Changes in weather conditions and lack of building maintenance culture are responsible for the ageing and deterioration of school buildings, grounds and equipments. The issue of facility maintenance is haphazardly addressed at all levels of education al system. Repairs take place only when problems arise due to break down of the existing facility.

All Education officers who were interviewed maintained that although government was concerned with improving physical facilities in public schools through various approaches such as Economic Stimulus Projects and other initiatives, continuous renovations and maintenance of existing physical infrastructure had not been fully addressed.

### **Quality Fencing Of the School Compound**

Respondents felt that quality fencing of the school could enhance implementation of Ministry of Education safety guidelines on physical infrastructure. This was a feeling of 50 (20%) students, 20 (50%) teachers and nine (9) headteachers. As observed from this distribution more teachers and headteachers as compared to students were of this opinion. This could suggest that students did not attach a lot of importance on school fencing. A study conducted by Nderitu (2008) indicated that students could still sneak out of school compound even where school perimeter fence existed. As for the teachers and headteachers, they strongly felt that fencing of the school compound could provide security to the school plant. According to Magdla (2006) school perimeter fence prevent truancy by controlling when and where children can leave school compound. In addition, it provides the personal safety of staff and visitors. Suggesting that school fencing could significantly enhance safety in schools, one District Education Officer said that, "Today, schools contain valuable and portable properties that are attractive to thieves. Arson is a significant problem that can, to a large extent be tackled by preventing unauthorised access by erecting a stable and quality fence"

Majority of the Education Officers stated other than demarcating school boundaries and providing security, school perimeter fence kept a way land grabbers.

### **Employing Adequate and Professional Security Personnel**

In order to enhance implementation of Ministry of Education safety guidelines on physical infrastructure, 70 (35%) students, 22 (55%) teachers and eight (8) headteachers suggested that schools' Board of Governors should employ adequate and qualified security personnel. They should also be continuously trained on their roles to equip them with relevant knowledge. According to Fullan (1995) there is need for continuous orientation and workshops for parties involved throughout safety policies implementation period. Regarding this suggestion, three (3) Education Officers said that:

Time has come for the government to design a policy regarding employment of support staff in public schools and design terms of reference and placement criteria as opposed to what is happening currently in these institutions where schools Boards of Governors employ support staff independently. This has greatly impacted negatively on services delivered by these staff especially where they are not well motivated.

### **Adherence to MOE Safety Guidelines on Physical Infrastructure**

A high number of students, 133 (66.5%), teachers, 37 (92.5%) and headteachers, eight (8) suggested that dormitories, classrooms, laboratories, libraries and other physical facilities should embrace safety needs of the students. They indicated that such facilities should be spacious, clean and well maintained. They should consider safety requirements such as windows and doors without grills and opening outwards to enable easy operation by students in case of a disaster. Teachers especially felt that congestion in the dormitories was a major security threat. This concurred with Jagero (2011) who reported that overcrowding in dormitories with sometimes double the originally intended number of students being accommodated and scarcity of running water was affecting security of students in boarding schools.

### **Stakeholders' Involvement in the Implementation of Safety Guidelines**

Half of the students, 100 (50%), teachers, 25 (62.5%) and headteachers, twelve (12) suggested that it was crucial to involve stakeholders in order to enhance implementation of Ministry of Education safety guidelines on physical infrastructure in schools. Students felt that they were left out in implementation of policies in schools. This agreed with Fullan (2003) who maintained that learners are important players during safety guidelines implementation process though they are usually ignored during decision making and vision building. Teachers indicated that although their core business was to implement curriculum in schools, it was important to involve them in safety guidelines implementation since physical infrastructure constitute the major components of both direct and indirect action elements in the environment of learning. These suggestions concurred with Clerk (2002) who maintained that success of implementation of safety guidelines in schools depends on teachers' support and commitment to this innovation.

Headteachers felt that there was need to involve all stakeholders in safety guidelines implementation because collaborative efforts bring into implementation process new ideas and perspectives. They further explained that, implementation of safety guidelines in schools requires intermixture of experts in different areas. This suggestion agreed with squelch (2001) who asserted that the responsibilities of safety guidelines implementation require collective efforts of all parties involved. He further stated that importance of safe physical infrastructure in schools have necessitated the involvement of several minds in safety guidelines implementation.

On the same suggestion, education officers indicated that implementation of Ministry of Education safety guidelines on physical infrastructure in schools involves

among other things collective decision making in relation to establishment of new schools, designs, renovation and modernization of old buildings and provision of safe equipments for both academic and non academic activities. They further stated that provision of safe physical infrastructure is a concerted effort among government, staff, students and communities of individual school.

### **Establishment of Schools' Safety Sub Committees**

Only 20 (10%) students out of the 200 who participated in the study suggested that it was necessary for schools to establish safety sub committee to oversee the implementation of safety guidelines in schools. However, overwhelming numbers of teachers, 30 (75%) and headteachers, all (15) suggested the same. This information indicates that students had little knowledge on the Ministry of Education safety guidelines in schools as opposed to teachers and headteachers.

Most teachers and headteachers who suggested this explained that, formation of safety sub-committee would decentralize safety implementation issues and relief headteachers of some duties since they were already overburdened with a lot of responsibilities. This would then enhance implementation of safety guidelines process. According to Nthenya (2011), a headteacher is instrumental in the government policies implementation in schools, it is their responsibilities to prepare, monitor, evaluate and make necessary interventions during policies implementation activities. She further stated that if some of these duties are not responsibly delegated to the teachers, then implementation process would be negatively affected.

Education officers who were interviewed also suggested constitution of safety sub- committees in schools in order to enhance safety policies implementation. One of them explained that:

For effective implementation of safety guidelines in schools, safety sub committees are necessary. The objectives of such committees would be to provide opportunities for the learners to exploit and maximize potential for learning, growth and development, and participate in enhancing school safety. The sub committees should also promote, maintain and contribute to the understanding of child and staff safety, provide benchmark for monitoring and appraising the safety status of schools. It would be their responsibility to empower members of the school community and other partners in order to increase awareness about issues related to school safety and also forge alliances and networks that enhance school and child safety.

### **Formulation of Sound Policies and Programmes in Schools to address**

#### **Implementation of MOE Safety Guidelines**

Respondents suggested that in order to enhance implementation of Ministry of Education safety guidelines on physical infrastructure in schools, it was important to establish sound policies and programs regarding safety measures in schools. The responses were as follows; students, 40 (20%), teachers, 35 (87.5%) and headteachers, fourteen (14). This information could imply that students were less exposed to management issues and they mostly did not understand the crucial role played by quality policies regarding education matters. A study conducted by Mwangi (2008) indicated that students were involved in multiple cases of indiscipline because they were not incorporated in the management of schools. Headteachers and teachers felt that school managers should proactively develop plans for the implementation of safety guidelines according to the needs of the school.

In support of this suggestion, Glickman (2004) maintained that the most fundamental problems in schools are lack of policy guidelines and programmes for infrastructural development in schools. This is the reason why in some schools, there are adequate and well equipped classrooms, staff offices, libraries, laboratories and other facilities while in others such facilities are inadequate or the few that are available are poorly equipped. He further asserted that, this happens because the government has failed to establish policy directive on minimum standards in relation

to school facilities and where such policies are in place there is no follow up to ensure their implementation. Suggesting establishment of sound policies and programmes for enhancement of safety guidelines implementation in schools, one District Education officers reported that:

Since a policy is authoritative communication of expected behaviour for individual in certain positions under specific conditions, education policies should direct actions of the school managers on how to implement safety guidelines in schools. In absence of such policies, safety guidelines implementation is left to the whims and caprices of the managers. Since schools are formal organizations, all activities should be in line with laid down rules and regulations derived from overall guidelines.

### **Establishing and Maintaining Cordial Relationship between Schools and Surrounding Communities**

Majority, 36 (90%) of the teachers, thirteen (13) headteachers and 80 (40%) students suggested that implementation of safety guidelines in schools can be enhanced by establishing and maintaining cordial relationship between schools and the surrounding communities. They explained that school's neighbouring community is positioned to serve as critical eyes and ears for a school, before and after school hours. They felt that no security service could compete with school neighbours in terms of providing a continual presence as well as in commitment to school's safety needs. This concurs with Nthenya (2011) who indicated that neighbours are more likely to spot vandals in the act than are police or private security. She further asserted that some school communities have had success in having law enforcement officers contact the owners of rental property where criminal activities are being encountered near schools and many landlords have evicted such tenants. One District Quality and Standards Officer said that:



School administrators can call upon students for community service in the neighbourhood. This can be used to discourage immediate problems while building long term goodwill. This positive interaction can build shared sense of belonging leading to mutual assistance when either students or neighbours are in need of help.

### **Availability of Time, Human, Finance and Material Resources**

It was suggested that Ministry of Education safety guidelines could be implemented effectively if time, financial, human and material resources were made available. This was brought out by 15 (7.5%) students, 34 (92.5%) teachers and all (15%) headteachers. The fact that very few students as compared to teachers and headteachers made this suggestion, it could mean that students are rarely involved in decision making in schools. Majority of teachers and headteachers felt that with adequate resources, implementation process would be smooth and effective. This concurred with Chivore (2002) who asserted that safety implementation in schools fail because it is poorly resourced. The inadequacy of resources prevents District Education Officers to perform their roles. They require time, fund, human, transport and other resources to execute their duties properly. He further stated that scarcity of any of these resources is a barrier for DEOs to effectively perform their role.

Education officers who were interviewed indicated that availability of adequate funds would enable school managers to ensure safety in schools through facility expansion and maintenance and also provide clean and safe environment for teaching and learning. One of them explained that:

Over the years, school managers have emphasized that physical facilities available for academic and non academic activities are inadequate and unsafe. This is very sensitive and demanding because it bears a direct relevance to the funding of education which is inadequate. It is evident that available physical facilities in some schools may well be regarded obsolete in terms of quality and quantity. These facilities were provided when the student population in the school was reasonably low when compared to the population of the same school presently using the same facilities. These facilities are no longer safe and do not satisfy present day need.

### **Capacity Building and Training of Stakeholders on School Safety**

Suggestion regarding emphasis on capacity building and training to enhance implementation of safety guidelines in schools was made by overwhelming numbers of respondents. The responses were as follows; students, 185 (92.5%), teachers, 39 (97.5) and headteachers, thirteen (13). This information could imply that there was a dire need for safety trainings in schools. Students explained that they required training on disaster preparedness through fire drills, first aid skills and operation of basic safety equipments in schools. Teachers and headteachers felt that all school community required training on safety guidelines implementation in order to promote the culture of safe school. According to Squelch (2001) availability of safe school facilities play pivotal role in the actualization of the educational goals and objectives by satisfying the physical and emotional needs for the staff and students of the school.

Education officers indicated that capacity building and training for those directly involved with safety policies implementation in schools was very necessary. They felt that school managers and teachers who constantly use school facilities lack knowledge of facility maintenance. Consequently, they fail to integrate facility safety and maintenance into the management of the school. This concurred with Mapfumo (1998) who maintained that several individuals occupying managerial positions in schools lack knowledge of management processes and some who poses the knowledge fail to put them into practical use in the management of school. Education officers further felt that training and capacity building would encourage the culture of preventive facility maintenance rather than emergency repairs that are rampant in schools. One of them said that:

Due to lack of training on safety in schools, emergency repairs are very common in schools. This takes place when a facility breaks down and urgent

measures have to be taken to remedy the situation. In this regard, collective decision making may not be possible because there may be limited time to bring together all necessary individuals to make decisions. It is also expensive because due to lack of maintenance, the extent of damage may demand total replacement of the facility or very high cost repair. In some cases, the breakdown may cause injury or even death.

Majority of the respondents suggested the following in order to enhance MOE safety guidelines implementation; engagement of professionals in the construction of school buildings, fencing of the school premises, provision of adequate and professional security personnel, adequate, clean and well maintained schools' physical infrastructure, involvement of all stakeholders in the implementation process, sound policies and programmes to address safety in schools, cordial relationship between schools and the surrounding communities and provision of adequate resources for safety guidelines implementation in schools.

#### 4.8 Hypothesis

The following hypothesis was tested

HO: There is no significant difference between head teachers' and teachers' attitude towards implementation of MOE safety guidelines and the safety status of physical infrastructures in public secondary schools in Nairobi West Region.

**Table 4.36 Means for Head teachers' and Teachers' attitude towards Implementation of safety guidelines**

	N	Mean	Std. Deviation
Head teachers' attitude	15	2.4667	.63994
Teachers' attitude	40	3.1250	.56330

**Table 4.37 ANOVA Results of the Hypothesis**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	3.796	4	.949	4.777	.001
Within Groups	49.464	249	.199		
Total	53.260	253			

\* *sig* .05

Since the obtained p value of .001 was smaller than the level of significance (.05), the Null Hypothesis was rejected and the study concluded that there was significant difference between head teachers' and teachers' mean attitude towards implementation of MOE safety guidelines and the safety status of physical infrastructure in public secondary schools in Nairobi West Region. This could imply that headteachers as manager of the learning institutions could have different views from teachers regarding implementation of MOE safety guidelines. According to Burnes (2004), responsibility of the actual implementation of Government policies rests on the shoulders of headteachers and they have to do everything possible to ensure safe school environment.

## **CHAPTER FIVE**

### **5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATION**

#### **5.1 Introduction**

This chapter presents an overview of the study, summary of the findings, conclusions and recommendations based on the assessment of implementation of Ministry of education safety guidelines on physical infrastructure in public secondary schools in Nairobi West Region.

#### **5.2 Summary**

The Purpose of the study was to assess implementation of the Ministry of education safety guidelines on physical infrastructure in public secondary schools in Nairobi West Region. The study was guided by specific research objectives on the areas of safety status of physical infrastructure, factors affecting implementation of safety guidelines, involvement of stakeholders in the implementation of safety guidelines, attitude of headteachers, teachers and students towards safety guidelines implementation and how to enhance implementation of safety guidelines in the schools under study.

From the literature reviewed, it was established that, the persistent recurrence of safety problems related to physical infrastructure in public secondary schools in the region under study pose serious questions that demand answers if similar cases are to be avoided in future. The study employed mixed methods approach where convergent parallel mixed method design was used. This enabled the researcher to collect and analyse both quantitative and qualitative concurrently and to merge the two sets of results into an overall interpretation.

Simple random sampling procedure was used to arrive at a sample of two hundred students (200) and forty three teachers (43). However, a sample of fifteen (15) head teachers and six (6) Education Officers was arrived at through purposive sampling procedure. Questionnaires, interview guides and observation guides were used to acquire data from the respondents. Data were analysed using descriptive statistics, employing both quantitative and qualitative approach. Inferential analysis was also used to test one hypothesis.

### **5.3 Summary of Findings**

#### **5.3.1 Extent of the Implementation of MOE Safety Guidelines on Physical Infrastructure in Schools**

The findings indicated that some schools had implemented MOE safety guidelines on physical infrastructure. However, most of them had not complied fully with these guidelines as evidenced by presence of poorly equipped and unsafe physical facilities. Some schools lacked permanent, secure and complete perimeter fence to offer necessary security and safety. Availability of abandoned buildings in some schools under study could be used for illegal activities.

#### **5.3.2 Factors Affecting the Implementation of MOE Safety Guidelines on Physical Infrastructure**

Findings on factors affecting implementation of MOE safety guidelines on physical infrastructure indicated that most students and teachers were not aware of the existence of Safety Standards Manual for Schools In Kenya (MOE, 2008). This had negative effects on the implementation of safety guidelines in schools. Lack of training on school safety issues and inadequate resources hindered implementation of safety guidelines in schools. Inappropriate communication channels and unsuitable

existing school buildings were cited as factors contributing to unsafe school environment. Other factors affecting Ministry of Education safety guidelines implementation in schools included; negative peer pressure, lack of good role models, drug and substance abuse, inadequate monitoring and evaluation of the implementation process among other factors.

### **5.3.3 Involvement of Stakeholders in the Implementation of MOE Safety**

#### **Guidelines**

Regarding involvement of stakeholders in the in the implementation of safety guidelines in schools, the study established that most students were not being involved in the implementation process. Most teachers and parents never got comprehensive information regarding safety in schools. On the contrary they got a lot of information on academic progress of their children and the importance of paying school fees promptly.

It was evident from the study that few headteachers were involving support staff in the implementation of safety guidelines. However, majority were involving BOG members in safety implementation process. It was noted that most headteachers did not involve surrounding community in ensuring safety of school premises.

### **5.3.4 Attitude towards implementation of MOE Safety Guidelines on physical Infrastructure**

Majority of the student either strongly disagreed or disagreed with various statements on safety guidelines implementation. Similarly, More than half of them were negative on disaster preparedness and availability of adequate, quality and safe physical infrastructure in schools. However, less than half of the students were positive about adequacy and quality of physical facilities in schools. The average

scores showed mixed attitude among students towards the implementation of MOE safety guidelines. Considerable number of teachers either disagreed or strongly disagreed about various statements on the extent to which safety guidelines had been implemented in schools. However, there were others who felt that safety guidelines had been implemented in schools. Thus, teachers appeared to have had mixed perceptions about the implementation of safety guidelines on various physical infrastructure in schools.

### **5.3.5 How to Enhance Implementation of Ministry of Education Safety Guidelines on Physical Infrastructure in Schools**

In order to enhance implementation of safety guidelines on physical infrastructure in schools, respondents suggested engagement of professionals in the construction of school buildings. They also suggested continuous renovation and maintenance of physical infrastructure as well as quality fencing of the school compounds. Employment of adequate and qualified security personnel and Increment of sanitation facilities, cleanliness modernization and equipping of the school kitchens and dining halls were also suggested. Further suggestions included maintaining physical facilities. Equally, a high number of respondents suggested involvement of all stakeholders in the implementation of safety guidelines in schools. Establishment of safety sub-committees in schools to oversee safety guidelines implementation process was suggested by most of the respondents.

## **5.4 Conclusion**

Based on the findings, the study concluded that, most schools under study had not fully complied with the Ministry of Education safety guidelines on physical infrastructure. This was evidenced by presence of unsafe, squeezed, ill equipped and



poorly maintained physical infrastructure. Majority of the respondents lacked adequate knowledge on safety standard manual for schools and had not received adequate training on safety and disaster preparedness. There was no adequate time, material, human and financial resources to enhance implementation of MOE safety guidelines in schools.

### **5.5 Recommendations**

The study made the following recommendations regarding implementation of Ministry of Education safety guidelines on physical infrastructure in schools;

Headteachers should ensure that all members of staff and students are aware of the contents of safety standard manual for schools since they are responsible and accountable for the implementation of Ministry of Education safety guidelines and the compliance with all relevant legislation in every area and for every activity within the school. Headteachers should put in place effective first aid provision and accident reporting procedures in accordance with the Ministry of Education safety guidelines in schools

District Education Officers should ensure that standards assessments are conducted in schools regularly to ascertain whether physical facilities are safe and provide recommendations to the concerned stakeholders. The officers should ensure such recommendations are adhered to by making regular follow up. There is need for the Ministry of Education to improve standards assessment tools to enable assessors determine whether implementation of safety guidelines is progressing as required or is having limitations and challenges. If assessment tools are consistent, reliable and valid, they will provide useful data for use in support of safety guidelines implementation process.

School administration should establish and maintain effective communication channels to provide feedback to schools' governing bodies regarding safety guidelines implementation. Board of Governors have responsibility to ensure that all reasonable steps have been taken to reduce the possibility of accidents or injury. Consistent and open communication is very important for successful education reforms because on-going communication eliminates misunderstanding and promotes innovative ideas. School administration should therefore embrace use of computers which provide most effective means of communication.

School administrators should enhance safety by emphasizing on a positive school climate, students and staff support systems and counselling opportunities. This approach is both preventive and proactive, and attempts to develop emotional literacy skills such as empathy and respect. This could establish school environment that allows students, teachers, administrators, staff and visitors to interact in a positive, non-threatening manner that reflects the educational mission of the school while fostering positive relationships and growth.

Since teachers have a duty in the implementation of safety guidelines in schools, they should carry out risk assessment, keep relevant documentation and devise safe working practices for their areas of responsibility. They should exercise effective supervision of students while maintaining awareness of emergency procedures in respect of fire, first aid, accident reporting and carrying them out as necessary. At the same time, teachers should set an example by personally following safe working practices and integrate all relevant aspects of safety guidelines into the teaching process and if necessary, give special lessons on safety in schools.

There is need for policy makers to develop a comprehensive policy indicating how all stakeholders in education should be involved in the implementation of safety guidelines in schools. Stakeholders are vital in addressing safety issues in schools by ensuring that new constructions and modernization projects are planned, designed, implemented and maintained in a safe manner that produces conditions conducive for teaching and learning. Training and education of all stakeholders on the operations and maintenance of safe schools should be carried out at all levels.

The government should provide adequate resources to schools for construction of physical facilities and develop extensive guidance on operation and maintenance of existing schools, and best practices for renovation and maintenance. They should also offer training, technical assistance and consultation on safety issues to schools. The government should also establish strict safety enforcement practices such as annual or routine inspection with written reports regarding safety status of physical infrastructure in schools. Written operations and maintenance plans for every school, available on request to staff, parents, students and other community members.

Schools' Board of Governors should lead the establishment and development of school safety sub committees and policies in an inclusive manner that involves all stakeholders. Such policies should detail the unique nature of each school and pay attention to emergency and evacuation procedures, post- incident resettlement, first aid and procedure for reporting criminal and violent crime. This should facilitate the inclusion of safety measures implementation in schools' development plan to ensure safety measures are budgeted for and implemented.

Headteachers are charged with responsibility of safety guidelines implementation. Therefore they should have, as their daily responsibilities, action

plans detailing surveillance schedules and maintenance and repair of school facilities. Personnel employed to carry out maintenance work should have schedules relating to these functions and should receive basic training for doing so.

Security and safety of the school environment begins at home. Parents are critical stakeholders in achieving a secure and safe school environment. This study recommends principals to engage parents in reinforcing security through adherence to safety standards, rules and guidelines of the school. Parents should be involved in developing the security and safety procedures and be constantly informed and updated. Security and safety should be an agenda item for all Parent Teacher Association meetings.

School administration should establish continuous programs for school safety. This could be done by using strategies such as conflict resolutions initiatives where educators are able to create an environment that fosters the development of resiliency. This will help students to preserve relationships, control their behaviour, and resolve conflicts peacefully. Similarly, school administrators should expressly pay attention to safety issues and compile comprehensive safety plans and strategies which take cognizance of clarification of a school safety mission statement and comprehensive safety policy and rules.

The school administration should maintain cordial relationship with the surrounding communities. This is because school's neighbouring community is positioned to serve as critical eyes and ears for a school, before and after school hours. No security service could compete with school neighbours in terms of providing a continual presence as well as in commitment to school's safety needs.

Orderly maintenance of physical facilities is often undervalued and overlooked as

a security and safety enhancement strategy. This refers to a routine programme of keeping the physical environment clean, orderly and hygienic. Unkempt, disorderly, and run down facilities send a signal of lack of control and compromise of the safety of the users. Often law breakers find such an atmosphere welcoming. Therefore, headteachers should develop a programme of routine maintenance of the school premises. They should also set clear rules and sanctions regarding waste disposal, vandalism of school property, theft, graffiti, etchings and other forms of defacing school walls and infrastructure.

Planning of school physical facilities is very vital for the simple reason that the quality of school buildings affects students' learning and achievement. Therefore, school administrators should be familiar with the requirements of the public Health Act and MOE safety standards guidelines which specify the standards expected of school buildings in terms of minimum health standards and the rules and regulations governing their provision. The ministry of education should revise safety standards guidelines to encompass contemporary challenges.

## **5.6 Recommendations for Further Research**

Researcher made the following suggestions for further studies.

- An investigation into the basic safety and security status of schools' physical environments.
- Effective facility management in learning institutions
- The impact of school facilities on students' achievement, attendance, behaviour, completion rate and teacher turnover rate in schools in Kenya
- The role of action research in provision of safe and protective school environment in public schools.

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3. Indicate your years of experience as a head teacher.

1-4 ( ) 5-8 ( ) 9-12 ( ) 13-16 ( ) 17-20 ( ) Above 20 ( )

4. What is your highest professional qualification?

PhD ( ) M. Ed ( ) B. Ed ( ) BA ( ) B. Sc ( )

Others, specify-----

5. What other administrative duties in school did you hold before you became a principal?

-----

## Section B

### **Extent of the implementation of MOE safety guidelines on physical infrastructure in schools under study**

5 Is there a kitchen in your school? Yes ( ) No ( )

If yes, is it well equipped? Yes ( ) No ( )

Explain your answer-----

Are the cooks qualified? Yes ( ) No ( )

Explain your answer-----

-----

6. Is there a dining hall in place? Yes ( ) No ( )

If yes, are dining hall facilities adequate? Yes ( ) No ( )

Explain your response-----

7. Are classrooms spacious? Yes ( ) No ( )

Explain your answer-----

8. Are classrooms appropriately located? Yes ( ) No ( )

If No, give reasons to your answer-----

Are classrooms safe? Yes ( ) No ( )

Explain your answer-----

9. Is there a library in place? Yes ( ) No ( )

If yes, is it appropriately located? Yes ( ) No ( )

If No, explain your response-----

Is the library well stocked? Yes ( ) No ( )

Explain your answer-----

Is the school library safe? Yes ( ) No ( )

Explain your response-----

10. Are the dormitories spacious? Yes ( ) No ( )

Explain your answer-----

Are dormitories appropriately located? Yes ( ) No ( )

If No, explain-----

Are the dormitories safe? Yes ( ) No ( )

If No, explain-----

11. Are toilets adequate? Yes ( ) No ( )

Are they appropriately located? Yes ( ) No ( )

Explain your answer-----

Are they safe? Yes ( ) No ( )

Explain-----

12. Are laboratories adequate? Yes ( ) No ( )

Are they appropriately located? Yes ( ) No ( )

Explain-----

Are they safe? Yes ( ) No ( )

If no, explain-----

13. Is there a perimeter fence? Yes ( ) No ( )

Does it offer required security? Yes ( ) No ( )

Explain-----

14. Are there abandoned buildings in the school compound? Yes ( ) No ( )

If yes, are they unsafe? Yes ( ) No ( )

Explain-----

15. Mention ways of ensuring safety of physical infrastructure in your school-----

-----

### Section C

#### Factors that affect implementation of Ministry of Education safety guidelines on physical infrastructure

16. Is Safety Standards Manual for schools in Kenya available in your school? Yes ( )

No ( ). If yes, is it easily accessible? Yes ( ) No ( )

Explain your response-----

17. Do you discuss safety standards manual for schools? Yes ( ) No ( )

Explain -----

18. Do you practice the requirements of safety standards manual for schools in Kenya?

Yes ( ) No ( ). Explain your answer-----

19. Are there Safety trainings in schools? Yes ( ) No ( ). If yes, are they on yearly basis? Yes ( ) No ( ).

Do these trainings equip you with the right safety knowledge? Yes ( ) No ( ).

Explain your answer-----

20. Was there a specific budget for safety guidelines implementation in your schools?

Yes ( ) No ( ). Explain your answer-----

21. Is there adequate time to address safety issues in your school? Yes ( ) No ( )

Explain your response-----

22. Is there adequate staff to deal with safety issues in your school? Yes ( ) No ( )

Explain your answer-----

23. Is there adequate transport to facilitate safety guidelines implementation in your school? Yes ( ) No ( ). Explain your response-----  
-----

24. Is there effective communication regarding safety guidelines implementation in your school? Yes ( ) No ( ). Explain your response-----  
-----

25. Tick (√) against the commonly used communication channel regarding safety issues in your school

Communication channel	√
Newsletters	
Posters	
Notice Boards	
School Assemblies	
Barazas	
Suggestion Boxes	
School Magazines	
Music Festivals	
Drama	
Sports	
Clubs and Societies	

26. Are safety equipments available in your school? Yes ( ) No ( )

If yes, are they adequate Yes ( ) No ( ) Explain your answer-----  
-----

Are safety equipments appropriately located? Yes ( ) No ( ). Explain your answer---  
-----

27. Are buildings in your school properly constructed? Yes ( ) No ( ). Explain your response-----  
-----

28. Mention safety programmes and policies that affect safety guidelines

implementation in your school-----

-29. State school environment factors affecting MOE safety guidelines on physical

infrastructure implementation in your school-----

-----

### Section D

#### **Stake holders' involvement in the implementation of MOE safety guidelines on physical infrastructure in the schools under study**

30. Are students included in school's safety committee? Yes ( ) No ( ). Explain your answer-----

Are students provided with safety reporting systems? Yes ( ) No ( ). Explain your

answer-----

Explain how students carry out safety campaigns-----

-----

31. Tick (√) against the statement(s) indicating parents' involvement in implementation of safety guidelines in schools.

Statement	√
They understand school's safety policies	
They are aware of school rules and regulations	
They understand school's safety protocol	
They encourage positive commitment of their children	
They monitor their children's activities	

Any other, specify-----

32. Explain how the following are involved in the implementation of safety guidelines on physical infrastructure in your school;



Teachers and support staff-----

Headteacher -----

BOG-----

Government-----

NGOs and CBOs-----

33. Is the school's surrounding community involved in the implementation of safety guidelines on physical infrastructure? Yes ( ) No ( ). Explain your answer-----

-----

Is it necessary to involve school's surrounding community in the implementation of safety guidelines on physical infrastructure in your school? Yes ( ) No ( ). Give reasons to your answer-----

## Section E

### Attitude of head teacher towards MOE safety guidelines on physical infrastructure implementation

34. Please rate your attitude towards safety measures by indicating whether you strongly agree (A), Agree (A), Not Sure (NS), Disagree (D) or Strongly Disagree (SD)

	Statement	SA	A	NS	D	SD
1.	Abandoned and uncompleted buildings are unsafe to learners					
2.	I regularly check visitors' book to ascertain those who access the school					
3.	The playgrounds are safe for use by learners					

4.	There are adequate toilets/closets for both girls and boys.					
5.	The school has clean and adequate water supply.					
6.	I identify the potential safety hazards in the school with a view of taking corrective measures					
7.	Due to financial implications of the MOE safety requirements, it is not possible to implement them					
8.	There is adequate security lighting in the school.					
9.	There is adequate fire fighting equipments.					
10.	The school has constituted a strong and effective security committee.					

16. What can be done to enable you to effectively implement MOE safety guidelines on physical infrastructure in your school?

**THANK YOU FOR YOUR COOPERATION**

## APPENDIX II: QUESTIONNAIRE FOR TEACHERS

### Introduction

JANE WAITHERA GATUA- REG NO 1012631 TEL NO-0724995079

CUEA P.O BOX 24205 NAIROBI TEL NO-891601/6

I am a student at Catholic University of Eastern Africa. In partial fulfilment for the award of a PhD degree, I am required to conduct a research and write a report. My study focuses on assessment of the implementation of MOE safety guidelines on physical infrastructures in public secondary schools in Nairobi West region, Kenya

Kindly respond to the questionnaire with ultimate honesty in order to facilitate this study. Your identity will be kept confidential. Thank you for taking time to support this study.

### Instructions

Please place a tick (√) in the bracket in front of the most appropriate responses and where explanation is required, use the space provided.

### Section A: Biographical Data

1. Indicate your gender (a) Male ( ) (b) Female ( )

2. Indicate your highest professional/ academic qualification.

MEd ( ) BEd ( ) BA ( ) BSC ( ) PGDE ( )

Others, specify-----

3. Indicate your years of teaching 1-4 ( ) 6-10 ( ) 11-15 ( )

16-20 ( ) Above 20 ( )

4. Indicate your current responsibility(s) in school-----

## Section B

### Extent of the Implementation of MOE safety guidelines on physical infrastructure in schools

5 Is there a kitchen in your school? Yes ( ) No ( )

If yes, is it well equipped? Yes ( ) No ( )

Explain your answer-----

Are the cooks qualified? Yes ( ) No ( )

Explain your answer-----

6. Is there a dining hall in place? Yes ( ) No ( )

If yes, are dining hall facilities adequate? Yes ( ) No ( )

Explain your response-----

7. Are classrooms spacious? Yes ( ) No ( )

Explain your answer-----

8. Are classrooms appropriately located? Yes ( ) No ( )

If No, give reasons to your answer-----

Are classrooms safe? Yes ( ) No ( )

Explain your answer-----

9. Is there a library in place? Yes ( ) No ( )

If yes, is it appropriately located? Yes ( ) No ( )

If No, explain your response-----

Is the library well stocked? Yes ( ) No ( )

Explain your answer-----

Is the school library safe? Yes ( ) No ( )

Explain your response-----

10. Are the dormitories spacious? Yes ( ) No ( )

Explain your answer-----

Are dormitories appropriately located? Yes ( ) No ( )

If No, explain-----

Are the dormitories safe? Yes ( ) No ( )

If No, explain-----

11. Are toilets adequate? Yes ( ) No ( )

Are they appropriately located? Yes ( ) No ( )

Explain your answer-----

Are they safe? Yes ( ) No ( )

Explain-----

12. Are laboratories adequate? Yes ( ) No ( )

Are they appropriately located? Yes ( ) No ( )

Explain-----

Are they safe? Yes ( ) No ( )

If no, explain-----

13. Is there a perimeter fence? Yes ( ) No ( )

Does it offer required security? Yes ( ) No ( )

Explain-----

14. Are there abandoned buildings in the school compound? Yes ( ) No ( )

If yes, are they unsafe? Yes ( ) No ( )

Explain-----

15. Have you ever experienced an incident as a result of unsafe physical infrastructure? Yes ( ) No ( )

16. Mention ways of ensuring safety of physical infrastructure in your school-----

-----

### **Section C**

#### **Factors that affect implementation of Ministry of Education safety guidelines on physical infrastructure**

17. Is Safety Standards Manual for schools in Kenya available in your school? Yes ( )

No ( ). If yes, is it easily accessible? Yes ( ) No ( )

Explain your response-----

18. Do you discuss safety standards manual for schools? Yes ( ) No ( )

Explain -----

19. Do you practice the requirements of safety standards manual for schools in Kenya?

Yes ( ) No ( ). Explain your answer-----

20. Are there Safety trainings in schools? Yes ( ) No ( ). If yes, are they on yearly basis? Yes ( ) No ( ).

Do these trainings equip you with the right safety knowledge? Yes ( ) No ( ).

Explain your answer? -----

21. Was there a specific budget for safety guidelines implementation in your schools?

Yes ( ) No ( ). Explain your answer-----

22. Is there adequate time to address safety issues in your school? Yes ( ) No ( )

Explain your response-----

23. Is there adequate staff to deal with safety issues in your school? Yes ( ) No ( )

Explain your answer-----

24. Is there adequate transport to facilitate safety guidelines implementation in your school? Yes ( ) No ( ). Explain your response-----

25. Is there effective communication regarding safety guidelines implementation in your school? Yes ( ) No ( ). Explain your response-----

26. Tick (√) against the commonly used communication channel regarding safety issues in your school

Communication channel	√
Newsletters	
Posters	
Notice Boards	
School Assemblies	
Barazas	
Suggestion Boxes	
School Magazines	
Music Festivals	
Drama	
Sports	
Clubs and Societies	

27. Are safety equipments available in your school? Yes ( ) No ( )

If yes, are they adequate Yes ( ) No ( ) Explain your answer-----

Are safety equipments appropriately located? Yes ( ) No ( ). Explain your answer---

-----

28. Are buildings in your school properly constructed? Yes ( ) No ( ). Explain your response-----

29. Mention safety programmes and policies that affect safety guidelines

implementation in your school-----

30. State school environment factors affecting MOE safety guidelines on physical

infrastructure implementation in your school-----

#### **Section D**

#### **Involvement of the stakeholders in the implementation of MOE Safety guidelines on physical infrastructure**

31. Are students included in school's safety committee? Yes ( ) No ( ). Explain your answer-----

Are students provided with safety reporting systems? Yes ( ) No ( ). Explain

Explain how students carry out safety campaigns-----

32. Tick (√) against the statement(s) indicating parents' involvement in the implementation of safety guidelines in schools.



Statement	√
They understand school's safety policies	
They are aware of school rules and regulations	
They understand school's safety protocol	
They encourage positive commitment of their children	
They monitor their children's activities	

Any other, specify-----

33. Explain how the following are involved in the implementation of safety guidelines on physical infrastructure in your school;

Teachers and support staff-----

Headteacher-----

34. Is the school's surrounding community involved in the implementation of safety guidelines on physical infrastructure? Yes ( ) No ( ). Explain your answer-----

Is it necessary to involve school's surrounding community in the implementation of safety guidelines on physical infrastructure in your school? Yes ( ) No ( ). Give reasons to your answer-----

## Section E

### Attitude of teachers towards implementation of MOE safety guidelines on physical infrastructure in schools under study

35. Please rate your attitude towards safety measures by indicating whether you strongly agree (A), Agree (A), Not Sure (NS), Disagree (D) or Strongly Disagree (SD)

	Statement	SA	A	NS	D	SD
1.	MOE safety guidelines on physical infrastructure are unattainable					
2.	The school management has given a lot of emphasis on safety standard Measures					
3.	Teachers are often trained on disaster preparedness					
4.	The school has a firm perimeter fence.					
5.	The support staffs are trained on disaster and Crisis management					
6.	The school has sufficient First Aid facilities					
7.	Most teachers reside in the school compound					
8.	The school has adequate and clean sanitation Facilities					
9.	Playgrounds safe for students To play in.					
10.	The school dorm master and matrons sometimes make impromptu visits in dormitories at night.					

## APPENDIX III: QUESTIONNAIRE FOR STUDENTS

### Introduction

JANE WAITHERA GATUA- REG NO 1012631 TEL NO-0724995079

CUEA P.O BOX 24205 NAIROBI TEL NO-891601/6

I am a student at Catholic University of Eastern Africa. In partial fulfilment for the award of a PhD degree, I am required to conduct a research and write a report. My study focuses on assessment of the implementation of MOE safety guidelines on physical infrastructures in public secondary schools in Nairobi West region, Kenya.

Kindly respond to the questionnaire with ultimate honesty in order to facilitate this study. Your identity will be kept confidential. Thank you for taking time to support this study.

### Instructions

Please place a tick (√) in the bracket in front of the most appropriate responses and where explanation is required, use the space provided.

### Section A

#### Biographical Data

1. Indicate your gender      Male      (   )              Female      (   )

2. Indicate your age.

12-14 years      (   )      15-17 years      (   )      18-20 years      (   )      above 20 years      (   )

**Section B****Extent of the implementation of MOE safety guidelines on physical infrastructure in schools**

5 Is there a kitchen in your school? Yes ( ) No ( )

If yes, is it well equipped? Yes ( ) No ( )

Explain your answer-----

Are the cooks qualified? Yes ( ) No ( )

Explain your answer-----

6. Is there a dining hall in place? Yes ( ) No ( )

If yes, are dining hall facilities adequate? Yes ( ) No ( )

Explain your response-----

7. Are classrooms spacious? Yes ( ) No ( )

Explain your answer-----

8. Are classrooms appropriately located? Yes ( ) No ( )

If No, give reasons to your answer-----

Are classrooms safe? Yes ( ) No ( )

Explain your answer-----

9. Is there a library in place? Yes ( ) No ( )

If yes, is it appropriately located? Yes ( ) No ( )

If No, explain your response-----

Is the library well stocked? Yes ( ) No ( )

Explain your answer-----

Is the school library safe? Yes ( ) No ( )

Explain your response-----

10. Are the dormitories spacious? Yes ( ) No ( )

Explain your answer-----

Are dormitories appropriately located? Yes ( ) No ( )

If No, explain-----

Are the dormitories safe? Yes ( ) No ( )

If No, explain-----

11. Are toilets adequate? Yes ( ) No ( )

Are they appropriately located? Yes ( ) No ( )

Explain your answer-----

Are they safe? Yes ( ) No ( )

Explain-----

12. Are laboratories adequate? Yes ( ) No ( )

Are they appropriately located? Yes ( ) No ( ). Explain

Are they safe? Yes ( ) No ( )

If no, explain-----

13. Is there a perimeter fence? Yes ( ) No ( )

Does it offer required security? Yes ( ) No ( )

Explain-----

14. Are there abandoned buildings in the school compound? Yes ( ) No ( )

If yes, are they unsafe? Yes ( ) No ( )

Explain-----

15. Have you ever experienced an incident as a result of unsafe physical infrastructure? Yes ( ) No ( )

16. Mention ways of ensuring safety of physical infrastructure in your school-----

-----

### **Section C**

#### **Factors that affect implementation of Ministry of Education safety guidelines on physical infrastructure**

17. Is Safety Standards Manual for schools in Kenya available in your school? Yes ( )

No ( ). If yes, is it easily accessible? Yes ( ) No ( )

Explain your response-----

18. Do you discuss safety standards manual for schools? Yes ( ) No ( )

Explain -----

19. Do you practice the requirements of safety standards manual for schools in Kenya?

Yes ( ) No ( ). Explain your answer-----

20. Are there Safety trainings in schools? Yes ( ) No ( ). If yes, are they on yearly basis? Yes ( ) No ( ).

Do these trainings equip you with the right safety knowledge? Yes ( ) No ( ).

Explain your answer-----

21. Was there a specific budget for safety guidelines implementation in your schools?

Yes ( ) No ( ). Explain your answer-----

22. Is there adequate time to address safety issues in your school? Yes ( ) No ( )

Explain your response-----

23. Is there adequate staff to deal with safety issues in your school? Yes ( ) No ( )

Explain your answer-----

24. Is there adequate transport to facilitate safety guidelines implementation in your school? Yes ( ) No ( ). Explain your response-----

-----

25. Is there effective communication regarding safety guidelines implementation in your school? Yes ( ) No ( ). Explain your response-----

-----

26. Tick (√) against the commonly used communication channel regarding safety issues in your school.

<b>Communication channel</b>	√
Newsletters	
Posters	
Notice Boards	
School Assemblies	
Barazas	
Suggestion Boxes	
School Magazines	
Music Festivals	
Drama	
Sports	
Clubs and Societies	

27. Are safety equipments available in your school? Yes ( ) No ( )

If yes, are they adequate Yes ( ) No ( ) Explain your answer-----

-----

Are safety equipments appropriately located? Yes ( ) No ( ). Explain your answer---

-----

28. Are buildings in your school properly constructed? Yes ( ) No ( ). Explain your response-----

29. Mention safety programmes and policies that affect safety guidelines

implementation in your school-----

-----

30. State school environment factors affecting MOE safety guidelines on physical

infrastructure implementation in your school-----

## **Section D**

### **Stakeholders' involvement in the implementation of MOE safety guidelines on physical infrastructure**

31. Are students included in school's safety committee? Yes ( ) No ( ). Explain your answer-----



Are students provided with safety reporting systems? Yes ( ) No ( ).

Explain your answer-----

Explain how students carry out safety campaigns-----

-----

32. Tick (√) against the statement(s) indicating parents' involvement in the implementation of safety guidelines in schools.

Statement	√
They understand school's safety policies	
They are aware of school rules and regulations	
They understand school's safety protocol	
They encourage positive commitment of their children	
They monitor their children's activities	

Any other, specify-----

33. Explain how the following are involved in the implementation of safety guidelines on physical infrastructure in your school;

Teachers and support staff-----

Headteacher-----

34. Is the school's surrounding community involved in the implementation of safety guidelines on physical infrastructure? Yes ( ) No ( ). Explain

Is it necessary to involve school's surrounding community in the implementation of safety guidelines on physical infrastructure in your school? Yes ( ) No ( ).

Give reasons to your answer-----

## Section E

### Students' attitude towards implementation of MOE safety guidelines on physical infrastructure in the schools under study

35. What is your attitude towards effective implementation of safety standard measures?

Please rate your attitude towards safety measures by indicating whether you strongly agree (SA), Agree (A), Not Sure (NS), Disagree (D) or Strongly Disagree (SD)

	Statement	SA	A	NS	SD	D
1	MOE safety guidelines on physical infrastructure have been implemented in my school					
2.	Visitors should be scrutinized as they enter school compound					
5.	There is a lot of awareness among members of the school on how to behave when a disaster strikes.					
8.	We have adequate and clean sanitation Facilities.					
9.	There are safe and secure playgrounds in our school.					
10.	There is a strong guidance and counselling department in our school.					
13.	Illegal items are never sneaked in our school.					
14.	There are adequate staffs housed in the school compound.					
15.	We always feel safe and secure while in school.					
17.	Electrical fittings are firmly fixed and can't cause any danger.					
18.	Classes are large and less congested.					

36. What can be done to improve safety of physical infrastructure in your school?-----

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**THANK YOU FOR YOUR COOPERATION**

## **APPENDIX IV: INTERVIEW GUIDE FOR DEOS**

### **Demographic Information**

1. What is your Highest Academic Qualification?
2. What is the range of your age?
3. How long have you served as a DEO?
4. How long have you served as a DEO in the current station?
5. What other responsibilities and positions did you hold before you become a DEO?

### **Extent of the Implementation of MOE safety guidelines on physical infrastructure in schools**

6. Do physical facilities comply with the MOE safety guidelines?
7. Do schools in your district have perimeter fence?
8. Are there abandoned buildings in schools in your district?
10. What can be done to improve safety status of physical infrastructure in schools?

### **Factors affecting Implementation of MOE safety guidelines on physical infrastructure**

9. Which courses/ seminars/workshops have you ever attended?
10. Are stakeholders trained on issues related to school safety in your district?
11. Is there financial allocation for safety guidelines implementation?
12. How often do QASOs assess how schools in your district?
13. Which challenges do you encounter as you assess implementation policies?
14. Do you act on the assessment reports?
15. Suggest ways of overcoming obstacles to the implementation safety guidelines.
16. What can be done to enhance implementation of safety guidelines?

## **APPENDIX V: INTERVIEW GUIDE FOR DQASOS**

### **Demographic Information**

1. What is your Highest Academic Qualification?
2. What is the range of your age?
3. How long have you served as a DQASO?
4. How long have you served as a DQASO in the current station?
5. What other responsibilities and positions did you hold before you become a DQASO?

### **Extent of the Implementation of MOE safety guidelines on physical infrastructure in schools**

7. In your own words, how can you describe safety status of schools in your district?

### **Factors affecting Implementation of MOE safety guidelines on physical infrastructure**

8. What are the barriers to implementation of MOE safety guidelines on physical infrastructure?
9. What can be done to enhance implementation of safety guidelines in schools within your district?
10. Explain factors that hinder implementation MOE safety guidelines on physical infrastructure in schools
11. In your own opinion what do you think requires to be done in order to improve implementation of MOE safety guidelines on physical infrastructure in schools?

**APPENDIX VI: OBSERVATION GUIDE**

Indicate using a (√) the availability of the listed items and give your remarks on adequacy, location, usability, safety status etc on the comments column

S/NO	Items	Availability		Comments
		Yes	No	
1.	Perimeter fence			
2.	Sign posts			
3.	Playgrounds			
4.	Toilets			
5.	Pathways			
6.	Door ways			
7.	Dormitories			
8.	Classrooms			
9.	Furniture			
10.	Railings			
11.	Lighting			
12.	laboratories			
13.	Gates			
14.	Fire extinguishers			
14	Kitchen			
15	Dining hall			
16	Library			

**APPENDIX VII: RESEARCH INTRODUCTION LETTER FROM THE  
UNIVERSITY**



**THE CATHOLIC UNIVERSITY OF EASTERN AFRICA**

**A. M. E. C. E. A.**

P. O. Box 62157  
00200 Nairobi - KENYA  
Telephone: 891601-6  
Fax: 254-2-891260  
admin@cuea.edu

*Department of Postgraduate Studies in Education*

12<sup>th</sup> June, 2012

TO WHOM IT MAY CONCERN

**Ref: Jane Waithera G. Reg. No. PhD/ED/1012631: PhD Degree Dissertation Research**

I am writing to introduce to you Jane Waithera, a final year PhD Degree student at the Catholic University of Eastern Africa, Nairobi – Kenya; and to request you to assist her to accomplish her academic research requirements.

Jane's PhD Degree specialization is Educational Administration and Planning. She has completed all course work requirements for this programme. However, every student in the programme is required to conduct research and write a report/thesis submitted during the final year of studies.

Accordingly Jane's proposal for research has been approved. She will conduct research on the following topic:

*“Assessment of the implementation of Ministry of Education safety guidelines on physical infrastructure in public secondary schools in Nairobi West Region, Kenya”*

Thanking you in advance for any assistance you will offer Jane.

Sincerely

**Dr. Marcella Momanyi**  
Head of Department,  
Educational Administration and Planning



**APPENDIX VIII: AUTHORIZATION LETTER FROM THE MINISTRY OF  
SCIENCE AND TECHNOLOGY**



**NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY**

Telephone: 254-020-2213471, 2241349  
254-020-310571, 2213123, 2219420  
Fax: 254-020-318245, 318249  
When replying please quote  
secretary@ncst.go.ke

P.O. Box 30623-00100  
NAIROBI-KENYA  
Website: www.ncst.go.ke

Our Ref: **NCST/RCD/14/012/825**

Date: **22<sup>nd</sup> June 2012**

Jane Waithera Gatua  
The Catholic University of  
Eastern Africa  
P.O.Box 62157-00200  
Nairobi.

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Assessment of the implementation of ministry of education safety guidelines on physical infrastructure in public secondary schools in Nairobi West region, Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **Nairobi Province** for a period ending **20<sup>th</sup> July, 2012**.

You are advised to report to **the Provincial Commissioner and the Provincial Director of Education, Nairobi Province** 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.

**DR. M. K. RUGUTT, PhD, HSC.**  
**DEPUTY COUNCIL SECRETARY**

**APPENDIX IX: PERMIT TO CONDUCT RESEARCH**

**PAGE 2** **PAGE 3**

**Research Permit No. NCST/RCD/14/01**

**THIS IS TO CERTIFY THAT:** **Date of issue** **22<sup>nd</sup> June, 201**

**Prof./Dr./Mr./Mrs./Miss/Institution** **Fee received** **KSH. 2,000**

**Jané Waithera Gatua**

**of (Address) The Catholic University of Eastern Africa**

**P.O.Box 62157-00200, Nairobi.**

**has been permitted to conduct research in**

**Location**


**District**

**Nairobi Province**

**on the topic: Assessment of the implementation of ministry of education safety guidelines on physical infrastructure in public secondary schools in Nairobi West Region, Kenya.**

**Applicant's Signature**

**Secretary National Council Science & Tech**





## **APPENDIX X: MINISTRY OF EDUCATION SAFETY GUIDELINES ON PHYSICAL INFRASTRUCTURE**

These facilities include structures such as classrooms, offices, toilets, dormitories, libraries, laboratories, kitchen, water tanks, and playground equipment, among others.

These facilities can be either permanent or temporary structures. Such physical 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, dormitories, offices, kitchens, toilets, and other physical structures are clean, well maintained, safe and properly utilised.**

### **Guidelines**

It is important to observe the following with regard to the various types of school buildings:

#### **Classrooms**

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-seater desks or 40 learners in two seater 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.
- ❖ For storied buildings, the stairways should be wide enough and located at both ends of the building and should be clear of any obstructions at all times. The construction of stairways should give provision for learners with special needs/disabilities. The handrails in the stairs should be strong and firmly fixed.
- ❖ The corridors should be both well ventilated and lit. The width should be wide enough for the learners to walk along without bumping into each other.
- ❖ 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.

- ❖ 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.
- ❖ 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 3 learners and the space between any two desks should be at least 2 feet.
- ❖ The positioning of electrical sockets should be beyond the reach of young learners in order to avoid tampering.
- ❖ All buildings and facilities should be accessible by special needs learners.

### **Dormitories**

In boarding schools, dormitories are the single most used physical infrastructure, where learners spend the longest continuous period of time in a day. It is therefore important to keep these structures clean and properly ventilated. In every school, care should be taken to observe the following:

- ❖ The space between the beds should be at least 1.2 metres while the corridor or pathway space should not be less than 2 metres.
- ❖ Since sharing of beds is prohibited in schools, admissions should be tied to bed capacity at all times.

- ❖ All doorways should be wide enough, at least 5 feet wide, and they should open outwards. They must not at any time be locked from outside when learners are inside.
- ❖ Each dormitory should have a door at each end and an additional emergency exit at the middle. It should be clearly labelled “Emergency Exit”.
- ❖ Dormitory doors should be locked at all times when learners are in class or on the playing fields. The keys to the doors should be kept by the Dormitory Master/Mistress or the Dormitory Prefect.
- ❖ Dormitory windows must be without grills and should be easy to open outwards.
- ❖ Fire extinguishing equipment should be functioning and placed at each exit with fire alarms fitted at easily accessible points.
- ❖ Regular spot checks by the teachers and the administration should be undertaken before learners retire to bed.
- ❖ An accurate roll call should be taken every day and records well maintained.
- ❖ There should be regular patrols by the school security personnel or any other authorised security personnel. No visitor should be allowed in the dormitory.
- ❖ There should be inspection of hygiene standards of the dormitories and the learners on alternate days of the week.
- ❖ Bunk beds should be strong and firm and fitted with side-grills to protect young learners against falling off.

### **Sanitation Infrastructure**

Sanitation infrastructure includes all the structures constructed for the purposes of disposal of human waste and for cleanliness. A safe school must have sanitation

facilities built up to the required standards and kept clean with high standards of hygiene. In order to enhance safety, the following must be observed:

- ❖ In cases where pit toilets are used these structures should be built at least 10 metres away from tuition and boarding facilities and on the downwind side.
- ❖ Where ablution block is attached to the dormitory, a high degree of cleanliness must be maintained.
- ❖ Pit latrines should not be less than 6 metres (20ft) deep, and should be regularly well disinfected.
- ❖ Pit latrines should be at least 15 metres (50 ft) away from a borehole or well or water supply point.
- ❖ Where there are boreholes or shallow wells in places with difficult soil types or land forms, the school management should seek the advice of the water department before the digging of a pit latrine.
- ❖ In mixed schools, girls' sanitation areas must be separate and offer complete privacy.
- ❖ Each school should ensure safe and effective disposal of sanitary wear.

In the construction of sanitary facilities, the following must be observed in relation to numbers:

- The first 30 learners: 4 closet (holes).
- The next 270 learners: one extra closet for every 30 learners.
- Every additional learner over 270 learners: 1 closet per 50 learners.
- All closets must be clean, well-ventilated and properly maintained.
- ❖ At least one third of the fittings for boys should be closets and the rest urinals. If a urinal is a trough, then 0.6m (2 ft.) of the trough is equivalent to one fitting.

- ❖ In all schools, appropriate provisions should be given to learners with special needs and very young learners in pre-unit and lower primary.
- ❖ For example, passageways should be accessible and toilet facilities should be suitable for use by special needs learners and very young school children.
- ❖ Proper consideration should be given for staff sanitation, with at least one closet for 12 persons and with separate provision for ladies and gentlemen.
- ❖ All sanitary facilities and equipment should be in the best state of repair, serviceable and inspected regularly.
- ❖ If learners are responsible for cleaning their sanitation facilities, proper protective measures (e.g. provision of gloves) must be taken.
- ❖ Soap and tap water or water cans fitted with taps should be set outside the toilets for washing hands after use of these facilities.
- ❖ For girls, tap water/washing places should be behind a screen or wall.

### **Libraries**

The library is the centre of academic life of the school. It is the designated place for storing, lending and reading of books in a school. A library that meets safety standards should be rightly located in a quiet place and should have sufficient space in addition to being well ventilated and safe from invasion by destructive insects and pests. In the construction of libraries, ensure:

- Adequate ventilation and lighting.
- Wide alleys of passageways to facilitate evacuation.
- Spacious room for easy movement.
- Dusting books regularly, preferably every three days.
- Properly reinforced and well spaced bookshelves.

### **Administration Block**

The administration block is an important structure in the school. It is the first station of call for all visitors to the school. It is also the storehouse of all the vital school records and equipment. An ideal school administration block should put into consideration the prevailing security situation of the school environment and the needs of the school. The following should be observed in constructing a school's administration structure:

- There should be provisions of offices for key school personnel such as the head teacher and deputy head teacher, senior teacher, bursar and the supporting secretarial staff. In addition, the school should have a staff room and registry.
- It should be centrally located and not far from classrooms.
- The doors and windows should be burglar proof.
- Each administration block, like any other block, should have a fire extinguisher.
- Provisions should be made to acquire fire-proof cabinets for the storage of essential office materials and documents.
- There should be provisions for easy access to legal and administrative documents such as the Educational Act, The Children's Act, Sexual Offences Act, the Public Health Act, Code of Regulations, school rules and any other documents accorded importance by the school authorities.
- Overall, the achievement of the right infrastructure in schools requires the collective efforts of different stakeholders. Nonetheless, the following guidelines would be necessary:

- No physical infrastructure should be constructed or occupied without consultations with and approval of the Ministry of Public Works, Ministry of Education, and Ministry of Health (Public Health Department).
- There should be close and cordial working relationship between the school, parents, sponsors and members of the community with regard to construction, utilisation and maintenance of the school buildings.
- A school site plan should be developed and be available at all times.