IMPLEMENTATION OF SAFETY STANDARDS AND GUIDELINES IN PUBLIC SECONDARY SCHOOLS IN MARANI DISTRICT, KISII COUNTY, KENYA

BY

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF EDUCATION IN PARTIAL FULFILLMENT FOR THE REQUIREMENT FOR THE AWARD OF A DEGREE OF MASTER OF EDUCATION OF KENYATTA UNIVERSITY.

MAY 2012
DECLARATION

“This research project is my original work and has not been presented for a degree in any other University or any other award”

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NYAKUNDI, ZABLON OGONYO                     DATE

“I/we confirm that the work reported in this research project was carried out by the candidate under my/our supervision”.

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DEDICATION

First and foremost, the work is dedicated to the Almighty God for his Grace and for inspiring me throughout the study. Further the work is dedicated to my family members who endured my absence during the period of study.
ACKNOWLEDGEMENT

The preparation and conduct of a research calls for concerted effort from several key individuals and stakeholders. First my gratitude go to my supervisors: Dr. Itegi Florence and Dr. Kombo Kisulu Donald whom their guidance and continuous encouragement was a source of great inspiration to pursue this study and come up with this research project report.

Secondly, I would like to thank all lecturers in the Department of Educational Management Policy and Curriculum studies for their encouragement throughout the master programme.

My gratitude further goes to members of my family: my wife Mariam, my children Emmanuel, Emily and Collvill, parents, brothers, sisters and other relatives and friends for their inspiration, love, moral and spiritual support throughout the programme.

Further compliment to my course colleagues, Madam Mong’are Esther and Areba George for their co-operation and encouragement.

The author would like to absolve all individuals’ mentioned above for any errors of omission and/or commission or any interpretational error for these the author remains solely responsible.
ABSTRACT

School Safety is an integral and indispensable component of the teaching and learning process. Indeed no meaningful teaching and learning can take place in an environment that is unsafe and insecure to both learners and staff. It is therefore important that educational stakeholders foster safe and secure school environment (Republic of Kenya, 2008). In an apparent response to tragedies that hit schools in the last decade, Ministry of Education (MOE) introduced a Safety Standards Manual four years ago. However it is emerging that most schools have no capacity to handle emergencies and are yet to even implement Safety Standards Manual produced four years ago. The purpose of this study was to establish why school management is not fully implementing MOE Safety Standards and Guidelines in Public Secondary schools in Marani District, Kenya. The Government policies, administrative factors, disaster management and emergency facilities exemplify the independent variables while school safety exemplify the dependent variable. The objectives of the study were to: establish the safety situation, outline the main causes of disasters, examine the constraints in the implementation of safety measures and explore major strategies put in place to prevent occurrence of disasters in public secondary schools in Marani District, Kenya. The study adopted a descriptive survey design and data was collected using one questionnaire. The target population was 28 public secondary schools in Marani District. Stratified, purposive and simple random sampling was used to select the required sample of the study of 49 teachers. Reliability of instruments was determined by use of test-retest method. Validity of research instruments was determined by conducting pilot study before the actual study. Data was quantified using descriptive statistics like frequencies and percentages and finding presented in charts, tables and graphs. Thematic analysis was used to analyse qualitative data. The major findings of the study were the MOE safety standards and guidelines had not been fully implemented majorly due to inadequate funds and inadequate supervision. The major recommendations therefore were policy makers to follow up, monitor and evaluate safety situation in all educational institutions and provide funds to all schools to enhance disaster preparedness. Significantly the study findings underscore the importance of adhering to safety standards and guidelines in schools thus education policy makers and other stakeholders’ must come up with strategies to sustain school safety to prevent occurrence of disasters in schools.
# Table of Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>..................................................................................................................</th>
<th>i</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declaration</td>
<td>........................................................................................................</td>
<td>ii</td>
</tr>
<tr>
<td>Dedication</td>
<td>.......................................................................................................</td>
<td>iii</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>..................................................................................................</td>
<td>iv</td>
</tr>
<tr>
<td>Abstract</td>
<td>.............................................................................................................</td>
<td>v</td>
</tr>
<tr>
<td>Table of Content</td>
<td>....................................................................................................</td>
<td>vi</td>
</tr>
<tr>
<td>List of Tables</td>
<td>.......................................................................................................</td>
<td>xi</td>
</tr>
<tr>
<td>List of Figures</td>
<td>.......................................................................................................</td>
<td>xii</td>
</tr>
<tr>
<td>Abbreviations and Acronyms</td>
<td>.........................................................................................</td>
<td>xiii</td>
</tr>
</tbody>
</table>

## Chapter One: Introduction

1.1 Background to the Study ......................................................................... 1

1.2 Statement to the Problem .......................................................................... 15

1.3 Purpose of the Study ................................................................................ 16

1.4 Objectives of the Study ............................................................................ 16

1.5 Research Questions .................................................................................. 17

1.6 Significance of the Study .......................................................................... 17

1.7 Assumptions of the Study ......................................................................... 18

1.8 Limitations and Delimitations of the Study .............................................. 19

1.8.1 Delimitations of the Study ................................................................... 19

1.9 Theoretical Framework ............................................................................ 20

1.10 Conceptual Framework .......................................................................... 22
1.11. Definitions of Operational Terms ................................................................. 26

CHAPTER TWO: REVIEW OF THE RELATED LITERATURE

2.0 Introduction ........................................................................................................... 28
2.1 Safety Situation in Kenyan Secondary schools .................................................... 32
2.1.1 Safety Programmes ......................................................................................... 35
2.1.2 Indicators of school safety ............................................................................... 38
2.2 Causes of Disasters in Public secondary schools .................................................. 39
2.3 Constraints in the implementation of Safety Measures ........................................ 47
2.4 Strategies put in place to prevent disaster in organizations ............................... 50
2.4.1 Government Response to Disasters in Schools .............................................. 55
2.5 Summary of Literature Review ............................................................................ 56

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction .......................................................................................................... 59
3.1 Research Design .................................................................................................... 59
3.2 Location of the Study ............................................................................................ 60
3.3 Target Population .................................................................................................. 60
3.4 Sample and Sampling Procedure ......................................................................... 61
3.5 Research Instruments .......................................................................................... 66
3.6 Validity of Instruments ......................................................................................... 67
3.7 Reliability of the Research Instruments .................................................................. 68
3.8 Data Collection Procedure ................................................................................... 69
3.9 Data Analysis ........................................................................................................ 70
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction ..................................................................................................................72

4.1.1 Highest Qualification ...............................................................................................72

4.1.2 Period as a Head teacher ..........................................................................................73

4.2 Safety Situation .............................................................................................................74

4.2.1 Existence of title dead ..............................................................................................74

4.2.2 Circular on Health and Safety Standards .................................................................75

4.2.3 Safety Situation .........................................................................................................77

4.2.4 Frequency of Safety Practices ..................................................................................82

4.3 Causes of Disasters .....................................................................................................85

4.3.1 Occurrence of a disaster ..........................................................................................85

4.3.2 Type of Disaster ........................................................................................................86

4.3.3 Possible Causes of Disasters ..................................................................................89

4.3.4 Other Disasters ........................................................................................................92

4.3.5 Immediate Consequences of Disasters ...................................................................93

4.4 Constraints in Implementation of Safety Standards and Guidelines .........................95

4.4.1 Safety Standard Manual .........................................................................................95

4.4.2 Level of Implementation ..........................................................................................96

4.4.3 Reasons for not having a Copy of Safety Standards Manual (2008 .......................97

4.4.4 Suggestions on implementation of Government Policy .........................................97

4.4.5 Possible Constraints in Implementation of Safety Standards and Guidelines ........98
4.4.6 Challenges Encountered in Implementation of Safety Standards and Guidelines

4.5 Strategies put in place to Prevent Disasters

4.5.1 Strategies put in place

4.5.2 Location of Fire Extinguishers

4.5.3 Frequency of the Implementation of Safety guidelines

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

5.2 Summary of Findings

5.2.1 Safety Situation

5.2.2 Causes of the Disasters

5.2.3 Constraints in Implementation of Safety Standards and Guidelines

5.2.4 Strategies put in place to Prevent Disasters

5.3 Conclusion

5.4 Recommendations of the Study

5.5 Suggestions for further research

REFERENCES

APPENDICES

Appendix I Health and Safety Standard Circular

Appendix II Letter of introduction

Appendix III Head teacher’s/ teacher’s Questionnaire
LIST OF TABLES

Table 1.1 Schools that experience insecurity by province in the year 2000/2001.................................................................10

Table 2.1 Injuries of school children by location............................. 36
Table 2.2 Type of school and drugs ........................................... 41

Table 3.1 Population of the Study ............................................. 63
Table 3.2 Population of TSC teachers ........................................ 65
Table 3.3 Samples size of TSC teachers .................................... 66

Table 4.1 Safety Situation Guidelines........................................ 77

Table 4.2 Frequency of Safety Practices ..................................... 82
Table 4.3 Type of Disaster....................................................... 86
Table 4.4 Possible Causes of Disasters....................................... 89

Table 4.5 Immediate Consequences of Disasters ......................... 93

Table 4.6 Possible Constraints in Implementation of Safety Standards and Guidelines. .................................................. 98

Table 4.7 Strategies Available.................................................. 101

Table 4.8 Frequency of the Safety Activities............................... 10
LIST OF FIGURES

Figure 1.1 Maslow’s Hierarchy of Needs ........................................ 20
Figure 1.2 The Conceptual Framework ........................................ 23
Figure 4.1 Highest Qualification ................................................. 73
Figure 4.2 Period as a Head teacher ............................................ 74
Figure 4.3 Existence of a Title Deed ............................................. 75
Figure 4.4 Circular on Health and Safety Standards ....................... 76
Figure 4.5 Disaster occurrence .................................................. 86
Figure 4.6 Safety Standard Manual ............................................. 95
Figure 4.7 Level of Implementation ............................................. 96
# ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADE</td>
<td>Arkansas Department of Education</td>
</tr>
<tr>
<td>BOG</td>
<td>Board of Governors</td>
</tr>
<tr>
<td>DEO</td>
<td>District Education Officer</td>
</tr>
<tr>
<td>DRR</td>
<td>Disaster Risk Reduction</td>
</tr>
<tr>
<td>EFA</td>
<td>Education for All</td>
</tr>
<tr>
<td>FMG</td>
<td>Female Genital Mutilation</td>
</tr>
<tr>
<td>HSE</td>
<td>Health and Safety Executive</td>
</tr>
<tr>
<td>ID</td>
<td>Identity Card</td>
</tr>
<tr>
<td>KENFIBA</td>
<td>Kenya National Fire Brigade Association</td>
</tr>
<tr>
<td>LSG</td>
<td>Lightening Safety Group</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>MOEST</td>
<td>Ministry of Education Science and Technology</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non Governmental Organizations</td>
</tr>
<tr>
<td>RoSPA</td>
<td>Royal Society for the Prevention of Accidents</td>
</tr>
<tr>
<td>P.S</td>
<td>Permanent Secretary</td>
</tr>
<tr>
<td>SSC</td>
<td>Safe School Contract</td>
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<tr>
<td>SSOCS</td>
<td>School Survey of Crime and Safety</td>
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<tr>
<td>TSC</td>
<td>Teachers Service Commission</td>
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<td>UK</td>
<td>United Kingdom</td>
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</tbody>
</table>
CHAPTER ONE
INTRODUCTION

1.1 Background to the study

Safety concerns have been articulated in the Education Act (1968-Chapter 211 - Laws of Kenya, Revised 1980). The Act stipulates that where application is made for the registration of an unaided school, the minister shall cause the school to be provisionally registered for a period of eighteen months if he is satisfied among others that the premises and accommodation are suitable and adequate, having regard to the number, ages and sex of the pupils who are to attend the school, and fulfill the prescribed minimum requirement of health and safety and conform with any building regulations for the time being in force under any written law.

Other legal instruments which address safety concerns in schools are: The Public Health Act Cap 242 (Chapter 242-972 Revised 1986), makes provision for securing and maintaining health for the citizens. It gives guidelines regarding health and construction of building. Though the guidelines are general, they should be applied to schools.

The Children’s Act (Chapter 586-2001), lays emphasis on protection of all children. The school and educational institutions in general should be aware of such rights in order to provide for them and safeguard them.
The Ministry of Public Works building regulations are supposed to provide suitable site plans and such plans adhered to. Any facility which has not been put up in conformity with existing regulation should be modified and the concerned school management to adhere to the laid down building regulations. The Directorate of Quality Assurance and Standards of the Ministry of Education (MOE) are supposed to inspect a school with regard to compliance with safety standards and guidelines.

The Government of Kenya has committed itself to improving the standard of education at all levels as indicated in the Ministry of Education Safety Standards Manual (Republic of Kenya, 2008).

This commitment has been driven by several reasons including the need to provide education as a fundamental human right, education as a social vaccine in the fight against poverty, and education as an integral and indispensable vehicle for achieving the goals of national development, integration and peace. It is for this reason that the government has from time to time appointed various educational commissions, committees and task forces to address various challenges facing our education sector. Examples include Kenya Education Commission (1964), National Committee on Education Objectives and Policies (1976), the Presidential Working Party on the Second University in Kenya (1981), The Presidential

The Commission of Inquiry in the Education System in Kenya (2000), recommends that clear rules governing the minimum standard of infrastructure to be approved before any educational institution may be established and be run, the ownership of the school or institutional land and inspection of infrastructure be included in appropriate legislation even though such standards could vary from one area to another.

With regard to basic education, the government focuses on promotions of access, equity, relevance and quality of education. Specifically the policy framework aims at achieving Education For All (EFA) by 2015, ensuring the right of children to basic education as underscored in the Children’s Act (2001), increasing access, equity and relevance of basic education and delivering quality services efficiently and effectively at all times and at all levels (Republic of Kenya, 2005).

Needs/Disabilities, Safety Against Child Abuse, Transportation Safety, Disaster Risk Reduction and School Community Relations.

Despite the MOE efforts to provide safety standards and guidelines, educational institutions in Kenya have a long standing history of ghastly disasters. These have led to damage of property, injuries and worst of all loss of precious lives, through incidents of fire and other risk situations. Examples of such incidents as reported in local daily newspapers and electronic media includes St. Kizito incident of 13th July 1991, 19 girls and many others were injured following a raping orgy by their male counterparts (Ndirangu, 1991). On the night of 23rd May 1999, four prefects in Nyeri High school were burnt to death (Mwaniki, 1991). Another horrifying incident was the Bombululu Girls Secondary School tragedy which took place on March 25th 1998, leaving 25 girls dead, Njuguna, (2001) and later on 27th March, 2001, in Kyanguli Secondary School 68 lives were lost and scores of other students injured through a fire tragedy, Odalo, (2001). Following the Kyanguli Secondary School tragedy which took place on 27th March, 2001 the Director of Education by then Mrs. Naomi Wangai wrote a circular reference G9/1/169 dated 10th April, 2001 (Appendix 1), on health and safety standards in educational institutions. The circular was addressed to education stakeholders under the general direction of the Ministry of Education to review their institutional safety strategies.
On 24th September 2010, students at Eronge Secondary School in Nyamira North District spent the night in the cold after arsonists set their dormitory on fire. Property was reduced to ashes as teachers, students and the neighbouring community watched helplessly as the school has no firefighting equipment. On 29th September 2010, thirty five (35) pupils were injured in Trans- Mara West-District by sustaining serious burns. The incident occurred following lightening accompanied by thunderstorm (Daily Nation) and on 19th October, 2010 two students were burnt to death in suspected arson attack on their dormitory at Endarasha Boys Secondary School in Kieni West District, Nyeri (Daily Nation). According to the standard of 7th March 2011, Wandubi Mixed Secondary School in Tetu District lost property worth 2 million shillings to fire. According to the school principal the fire is believed to have been caused by electric fault.

Marani District is not spared either because according to the District Education Officer (DEO) two schools in the month of May (2010), were attacked by gangs (thugs) who wanted to steal from the schools (Itibo Boys and Gamba Mixed Secondary Schools). Also most secondary schools do not have valid title deeds to secure ownership of the land on which they stand.

The causes of student unrest as revealed in the Report of the Task Force on Student Discipline and Unrest in Secondary Schools were categorized into internal school factors and external school factors (Republic of Kenya, 2008).
Internal school factors namely: special privileges such as uniforms, special diet and cubicles for prefects, ‘copy cat’ nature of some of the students, vague and oppressive rules which are applied selectively result in resentment and ultimately open defiance by the students, lack of and poor supervision of student during school outings. The charges of these outings are not properly accounted for resulting to students being abandoned. This creates a problem of security and antisocial behavior among students and also disparity in the provision and maintenance of facilities between schools.

External school factors refer to factors outside the school but which have great influence on discipline of students. These factors include: drug and substance abuse, varied types of drugs and narcotic substances are readily available in some localities where schools are situated. Such drugs and substances are bhang, marijuana, tobacco, changaa, kuber, and glue; rejection of head teachers by the community, insecurity within and outside the school, peer group influence, devil worship, child labour, inducive environment, unauthorized visitors, and human rights awareness where students agitate for unreasonable demands on the school administration and the role of the mass media both print and electronic.

 Threats to school safety as indicated in the MOE Safety Standard Manual (Republic of Kenya, 2008) can emanate internally within the school environment or externally from within the wide community. Key among the threats to school
safety are: accidents caused by carelessness, inattentiveness, ignorance, irresponsibility or negligence on the part of the learners, staff or other stakeholders in general, school violence and harassment, lack of adequate healthcare and nutrition, armed conflicts and insecurity and hostile school environment. It is in this context that the current study sought to find out why safety standards and guidelines are not adhered to in public secondary schools in Marani District, Kenya, with a view to enhance safety preparedness among public schools in Marani District so as to prevent, mitigate and effectively prepare against potential disasters thus minimize destruction of life, property and disruption of normal operations. Safe and secure school environments facilitate and foster quality teaching and learning in education institutions. In insecure school environment, delinquency, truancy and absenteeism especially among girls are common. When teaching and learning is interrupted by acts of violence among learners, through ethnic or land clashes, cattle rustling, cultural practices such as female circumcision (Commonly referred to as Female of Genital Mutilation or FGM), learners performance in national examination will inevitably be compromised. Comprehensive school safety is therefore fundamental to school success and learners achievements.

However, it is important to note that sometimes in spite of stringiest safety measures put in place by schools, disasters still occur. It is the degree of preparedness of a school’s entire system that makes the critical difference. Ozigi
(1977), argues that school accidents can happen at any time, nevertheless maximum precautions should be undertaken to avoid preventable accidents. Therefore in order to reduce or avoid destruction of property, loss of life and human misery that follow in the wake of disaster, it is important for school management to learn about disaster prevention and management hence the concern of the study to establish why school management is not fully implementing safety standards and guidelines in Marani District, Kenya.

The Royal Society for the prevention of accidents, Bibbings, (2003), had made the following observation on accidents prevention:

*We fail to prevent accidents not because of incomplete control of the circumstances which give rise to them, but because of our partial knowledge of what will happen in the future. Human beings in this sense fail to bring order to an essentially chaotic and dangerous world-not just because it defies their efforts to control it but because they do not fully understand its complexity and randomness. The result is a potentially dangerous tendency to deny the error and disorder is permanent features of the natural world and all human understandings in particular. We become complacent and fail to take preventive action. Good investigation of accidents where it takes place, tends almost invariably to show that failure to prevent them are rooted either in weaknesses in risk assessment or in the implementation of control measures.*
According to Otula (2007), disaster management involves all actions aimed at reducing or preventing calamities and providing adequate measures to combat any catastrophe or mishap. Otula (2007) further argues the main aim of disaster preparedness is to set up appropriate systems and infrastructure for response in case disaster strikes. This includes laying down essential tools and procedures aimed at ensuring operational readiness to combat calamities. Measures should also be put in place to combat future disaster outbreaks as well as communicated and understood by all. Disaster preparedness minimizes the adverse effects of a disaster by ensuring a realistic level of pre-incident take up of risk reduction strategies as well as ensuring speed and timeliness in handling emergencies or disaster so as to minimize devastating effects. Timeliness is arriving at the scene and combating the disaster without undue delay can save lives and properties.

Ngare (2008) reports concern by school principals in Kenya high schools over the ever increasing number of cases of learners indiscipline in Kenyan schools. Such indiscipline resulted, in some cases in the destruction of property in schools, violence and substance abuse and school authorities indicated the indiscipline reached unmanageable levels.

In Kenya, the dawn of the 21st century saw an increase in insecurity in secondary schools where students have exhibited excessive unbecoming conduct (Republic of Kenya, 2001). In 2007 alone 300 secondary schools were closed after students
went on rampage destroying property and a number of them lost their lives (Kindiki, 2009). Data on table 1 shows secondary schools that were insecure per province in Kenya in the year 2001. All secondary schools in Kenya by then were 3,244 out of which 250 (7.73%) were insecure. North Eastern, Central and Eastern provinces were the most affected.

**Table 1:1 Schools that experienced insecurity by province in the year 2000/2001**

<table>
<thead>
<tr>
<th>Province</th>
<th>No. of schools</th>
<th>Insecure schools</th>
<th>Percentage</th>
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<tr>
<td>Central</td>
<td>630</td>
<td>85</td>
<td>13.50</td>
</tr>
<tr>
<td>Coast</td>
<td>151</td>
<td>4</td>
<td>2.60</td>
</tr>
<tr>
<td>Nyanza</td>
<td>680</td>
<td>7</td>
<td>1.00</td>
</tr>
<tr>
<td>Eastern</td>
<td>626</td>
<td>76</td>
<td>12.40</td>
</tr>
<tr>
<td>Rift valley</td>
<td>625</td>
<td>50</td>
<td>8.00</td>
</tr>
<tr>
<td>Western</td>
<td>408</td>
<td>19</td>
<td>4.70</td>
</tr>
<tr>
<td>Nairobi</td>
<td>93</td>
<td>2</td>
<td>0.02</td>
</tr>
<tr>
<td>North Eastern</td>
<td>21</td>
<td>7</td>
<td>33.30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3234</strong></td>
<td><strong>250</strong></td>
<td><strong>7.73</strong></td>
</tr>
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</table>

Hence the need to determine why safety standards and guidelines had not been implemented in public secondary schools in Marani District, Kisii County, Kenya.

Elsewhere in Africa, a study by Zulu et al (2004) investigated 16 high schools in the violence prone area of Kwamashu in Northern Durban and revealed that violence was prevalent in the schools; Learners were largely unsafe in schools and were mistrusted by fellow learners. Violence and indiscipline had severely impeded the culture of teaching and learning in schools. It is indiscipline of this magnitude that is worrisome because schools should be safe and conducive environment for learning and if this is disturbed it becomes a real cause of concern. Forms of indiscipline such as physical confrontation, verbal confrontation, theft, substance abuse and pornography are documented as forms of indiscipline in schools in a study by Aziza (2001).

Learner indiscipline is very prevalent in South African school (Thomson 2002, Harber 2001; Mtsweni 2008; Kgojanas 2006; Mabeba and Prinsloo 2000; Van Wyk 2001, Netshitahame and Vollenhoven 2002). All these studies confirm the prevalence of learner indiscipline in South African schools. Aziza (2001) highlights the rising number of learners being suspended and expelled from some Western Cape schools. The reasons that led to suspensions and expulsions ranged from physical confrontation, Verbal confrontation, theft, substance abuse and pornography (Aziza 2001: 159 – 161)
Internationally according to Arkansas School Facility Manual, the Arkansas Department of Education (ADE) is charged with overseeing the design and construction of school facilities. The Arkansas School Facility Manual provides consistent, clear information for school districts and professionals as a new generation of schools is being created for Arkansas. The standards and guidelines contained in the manual are the culmination of standards, accepted procedures, statutory requirements, and experience of experts and authorities across the United States and establish a uniform level of quality of all public school buildings.

In the United Kingdom (UK); the Royal Society for the Prevention of Accidents (RoSPA) initiated a project aimed at producing a training resource for schools which would help them address their responsibilities dubbed ‘Together Safely: Developing a whole School Approach to Health and Safety’. This encourages schools to develop an ethos that promotes health and safety, (Aucott 1998).

In the United Kingdom (UK) there has also been forms of indiscipline that include the use of drugs, gangsterism and shooting, and most schools world wide have adopted ‘zero tolerance’ approaches to indiscipline (Thernstom 1999). He further highlights some of the common cases of learner indiscipline in Massachusetts in the United States as including rape, sexual battery, robberies, physical attacks and vandalism.
Armstrong (2010) notes that the Health and Safety Executive (HSE) estimates that in the UK about 500 people are killed at work place every year and several hundred thousand more are injured and suffer ill health. The total cost to British employers of work related injury and illness exceed £4 a year.

According to Montee (2008), Missouri school children in the United States of America (USA) are faced with a variety of school safety issues including prevention of unauthorized entry, vandalism and theft, alcohol and drug usage, fighting, disrespect of school personnel; weapons brought to the school, lack of funding to purchase equipment and security services needed, denial that a school violence situation could occur some schools have not established safety committee, schools do not conduct safety drills for many types of hazards.

The safe school study report conducted in USA in 1978 came up with shocking statistics regarding insecurity in secondary schools. This report indicated that approximately 282,000 learners and 5,200 educators were physically assaulted in American secondary schools every month (Eliot, Hamburg and Williams, 1998). Since then, there has been a growing concern of this problem worldwide. A comparative study of member states of European Union found out that the rate of insecurity in schools had risen sharply in the past two decade by as much as 50 – 100% (Hughes, 2004).
All over the world, there has been an upward trend in the numbers of school children dying or getting injured in school violence, disasters and emergencies, that would be avoided if safety policies were strictly adhered to from the incidences in America and European schools, the 2004 Besian massacre in Russia to the Chinese school blast and India school fires, hundred of schools children have died in preventable incidents (Cavanagh, 2004, Soomeren, 2002 and Reuters 2004).

The partial or total lack of the implementation of school safety policies has been a cause of concern in both India and China. Reuters (2004) in a report documenting the India school fire of July 2004 blames the tragedy in which 90 children died, on failure to fully implement safety norms. The school building in this case was overcrowded and had only one exit. There was no emergency door or fire fighting equipment. School tragedies in India, including the 1995 school fire, which led to the death of 400 students, are blamed on failure by regulatory authorities to enforce safety norms. For examples schools may stay for as long as three years without being inspected. In China, the 2001 school blast in which storied buildings collapsed on school children was blamed on selective implementation of safety policies.
1.2 Statement to the Problem

School safety is an integral and indispensable component of the teaching and learning process. Indeed no meaningful teaching and learning can take place in an environment that is unsafe and insecure to both learners and staff. It is therefore important that educational stakeholders foster safe and secure school environment to facilitate increased learners’ enrolment, retention, completion and hence quality education (Republic of Kenya, 2008).

Despite the importance of school safety, a new wave of mayhem has emerged in our society and the school has not been spared. There is an upsurge of violence arising quite rapidly. School management should be alert all the time to prevent occurrence of acts of hooliganism, lest they are blamed for professional negligence. In some schools students resort to senseless destruction, burning, maiming, raping or even killing those they think are harsh on them (Nderitu 2009). Cases of student unrest have been in existence as far back as the beginning of the 20th century when the first case was reported in Maseno in 1908 as indicated in the report of Task Force on Student Discipline and Unrest in Secondary Schools (Republic of Kenya, 2001). Similarly despite the government efforts, the available literature revealed that most schools have no capacity to handle emergencies, and are yet to implement safety standards manual produced four years ago, hence some schools are sitting on a time bomb should there be an emergency. The available literature did not reveal why MOE safety standards and guidelines had not been
implemented in all schools by the management. Therefore the current study addressed this gap and gave recommendations on what should be done to enhance school safety in order to secure the safety of learners in particular.

1.3 Purpose of the study

The purpose of this study was to establish why safety standards and guidelines had not been implemented fully in all schools meant to enhance disaster preparedness, discipline and academic performance in public secondary schools in Marani District, Kisii County, Kenya.

1.4 Objectives of the study

The specific objectives of the study were as follows:

a) To establish the safety situation in public secondary schools in Marani District, Kenya.

b) To outline the main causes of disasters in public secondary schools in Marani District, Kenya.

c) To examine the major constraints in the implementation of the government policy related to safety standards and guidelines in public secondary schools in Marani District, Kenya.

d) To explore the major strategies put in place to prevent occurrence of disasters in Public Secondary Schools in Marani District, Kenya.
1.5 Research questions

The study was guided by the following research questions:

a) What is the safety situation in public secondary schools in Marani District, Kenya?

b) What are the main causes of disasters in public secondary schools in Marani District, Kenya?

c) What are the major constraints in the implementation of safety standards and guidelines in public secondary schools in Marani District, Kenya?

d) What strategies have been put in place to prevent disasters in public secondary schools in Marani District, Kenya?

1.6 Significance of the study

The study provided useful information to the school administration, teachers and students on the need to adhere to safety standards and guidelines in their respective schools in order to enhance school safety.

Secondly, the study exposed the challenges faced by school management in the implementation of safety standards and guidelines thus assist policy makers at the MOE to develop policy framework on provision of emergency facilities such as fire fighting equipment, alarm systems, first aid facilities and training of the school community in disaster management.
Thirdly the study may enable education stakeholders and policy makers to critically monitor and evaluate adherence of safety standards and guidelines in public secondary schools thus form a basis on which further research can be done and add to the body of knowledge in the area of school safety so as to provide more concrete solutions to disaster management in school.

Further the findings may enable education stakeholders and policy makers to come up with concrete strategies for preventing disasters in public secondary schools like mobilizing funds from donor communities to supply schools fire fighting equipment.

Finally the study provided information that may form a basis for recommendation of any relevant adjustment towards implementation of safety standards and guidelines in schools.

1.7. Assumptions of the study
The study was based on the following assumptions: the questionnaires were adequate instruments for the study; the information given by respondents was honest; school management was aware of the MOE safety standards and guidelines; implementation of school safety standards and guidelines is hindered by certain constraints and the issue of disaster preparedness in school had not been adequately addressed.
1.8 Limitations and delimitation of the study

Due to the limitation of time and resources not all public schools were studied. This reduced the accuracy of establishing why the MOE safety standards and guidelines were not adhered to in public secondary schools. Furthermore the sample size might not be adequate enough to guarantee accurate generalization in the whole country. It was not possible to cover the opinions of students, parents and other stakeholders (Board of Governors) on their awareness of safety standards and guidelines due to time and financial constraints. Moreover there was a dearth of literature on school safety especially as related to disaster preparedness given that not much had been documented and studied in this area in relation to public schools. Last but not least not all components of safety standards and guidelines were covered.

1.8.1 Delimitations of the study

The study was confined to four out of thirteen key components of safety standards and guidelines as indicated in MOE Safety Standards Manual (Republic of Kenya, 2008). These component included the physical safety components: safety of school ground; safety in physical infrastructures; safety in school environment and disaster reduction.

Therefore other physical safety components, and students health programme were left out for purposes of obtaining manageable data for analysis and interpretation.
1.9. Theoretical Framework

This study was based on Maslow hierarchy of needs based on a hierarchical model with basic needs at the bottom and higher needs at the top. These are physiological needs, safety needs, categorized as basic needs whereas love needs, esteem needs and self actualization needs are categorized as secondary or higher needs, Okumbe, (2007).

![Fig. 1.1 Maslow’s Hierarchy of Needs Source: Okumbe, (2007)](image)

According to Armstrong (2006:257), Maslow’s hierarchy is as follows:

**Physiological needs**- The need for oxygen, food, water and sex

**Safety** - The need for protection against dangers and deprivation of physiological needs.

**Social** – The needs for love, affection and acceptance as belonging to a group.
Esteem – The need to have a stable, firmly based, high evaluation of oneself (self esteem) and to have the respect of others (prestige).

Self fulfillment (self actualization) - the need to develop potentialities and skills, to become what one believe one is capable of becoming.

Maslow’s theory of motivation states that when a lower need is satisfied, the next highest becomes dominant and the individuals attention is turned to satisfying this highest need. Psychological development takes place as people move up the hierarchy of needs, but this is not necessary a straight forward progression. The lower need still exists even if temporarily dormant as motivators, and individuals constantly return to previously satisfied needs, Armstrong, (2006:258).

This theory formed an important base for the study because it identifies safety needs as being important to the well being of human beings. After meeting the physiological needs they require assurance that their security needs will be addressed. It is, therefore, imperative that educational stakeholder foster safe and secure environments to facilitate increased learners enrolment, retention, completion and hence attainment of quality education.
1.10 Conceptual framework

A conceptual framework is a model of presentation where researchers represent the relationship between variables in a study and show the relationship graphically or diagrammatically. According to Orodho (2006), a conceptual framework assists the researcher to quickly see the proposed relationship between variables. Ideally all schools should adhere to safety standards and guidelines to enhance child safety as indicated in figure 1.2
Government policies
- Education Act
- Public Health Act
- Public works and building guidelines

Administrative factors
- Implementation of government policies
- Management of physical infrastructure
- Management of students
- Leadership style

Disaster management
- Fire drills
- First Aid kits
- Evacuation maps
- Telephone tree list
- Security lighting

Emergency facilities
- Fire extinguishers
- Buckets of sand
- Alarm systems

IMPLEMENTATION OF SAFETY STANDARDS AND GUIDELINES

SCHOOL SAFETY

Independent variables
Dependent variable

Fig 1.2 The Conceptual Framework
Source: Author, 2012
The conceptual framework illustrates the dependent and independent variables of the study. School safety is determined by a composite of various variables. The government formulates various policies such as the Education Acts (1980), Public Health Act (1986), Public Works Building Regulation and the MOE Safety Standard Manual (2008) which give direction concerning safety in all educational institutions which must be adhered to ensure school safety. It is incumbent upon the school administrators who are the implementers of government policies to ensure that the MOE safety standards and guidelines are not only adhered but also fully implemented to prevent occurrence of disasters in schools. The head teachers must all the time comply with the provisions of the Education Act (Cap 211), the Ministry of Public Works Building Regulations especially in the development of the school physical infrastructure and as well as adhere to MOE Safety Standard Manual(2008). They should also embrace democratic leadership style in the governance of their institutions if they have to avoid security threatening activities in their schools through establishment of sound safety programmes, establishment of schools security committees and capacity building of staff members in safety issues through refresher courses.

In addition the school management and more especially the head teacher is charged with the responsibility of ensuring that teachers, students and support staff are not only exposed to basic disasters management skills such as fire drills, but also involved in the provision of first aid kits, security lighting, fire extinguishers,
buckets of sand and alarm systems among other preventive and fire fighting equipments and facilities

However, it is worth to note that as much as standards and guidelines are adhered to sometimes disasters in schools are caused by not only internal factors such as drug abuse, high handedness by the head teachers, communication barriers, but also external factors such as media influence, societal influence and environmental factors as recorded by the Task Force Report on Student Indiscipline (Republic of Kenya, 2001), therefore it is the responsibility of the school management to promote cordial relationship with all the stakeholders through democratic leadership to avoid security threatening activities like strikes by students. By and large once safety standards and guidelines are implemented fully by the school management the end result is safe school.
1.11 Operational Definition of Terms

**Child**
Is a person of below eighteen years (18) of age.

**Dearth**
Inadequate appropriate reference books and literature on the topic of study

**Disaster**
Mean an emergency event that occurs with little or no warning, causing extensive destruction of property, live and disruption of normal operation.

**Disaster Risk Reduction**
Refers to actions designed to minimize destruction of life, property and disruption of normal operations

**Guidelines**
Recommended practices that the school should undertake to meet the Safety standards suggested.

**Hazard**
Anything that can cause loss or damage to school or its occupants.

**Learners**
A child between 6 and 18 years enrolled in a school.
Physical infrastructure  Refer to any built facility for use in the school to facilitate the provision of services.

School safety  Measures undertaken by the children, staff, parents and other stakeholder to either minimize or eliminate risky conditions to threats that may cause accident, bodily injury as well as emotional and psychological distress.

School stakeholders  Groups of people with roles to play in the running of a school (i.e. learners, staff, Board of Governors(B.O.G), parents, sponsors, NGOs, supporting the school, local community, people in charge of security etc.

Standard  The level of quality achievement in relation to a school safety component for example environmental safety, quality water, safe building).

Risk  Is the chance or probability that such loss or damage will actually occur.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Early in 2008 the country experienced unprecedented insecurity, leading to internal displacement of over 300,000 people, many of them school children as indicated in the MOE Safety Standard Manual (Republic of Kenya, 2008). In addition many schools in the affected areas had their infrastructure destroyed thus disrupting learning in schools, when children returned to their home areas. These and many other cases of child abuse that continue to occur, among many other factors necessitated the reason why the current study sought to carry out research on the implementations of safety standards and guidelines in Marani District, Kisii County, Kenya.

According to the Director of Education in her Circular Ref. No. G9/1/169 dated on 10th April 2001 (Republic of Kenya, 2001), there have been a number of incidents of fire and other risk situations in our educational institutions. This made it necessary for the Ministry to review all Health and Safety Standards in all educational institutions, and also provide the relevant guidelines that affect the welfare of students. In the introduction of the above mentioned circular the Director of Education observes that educational institutions in this country are
for greater part of the year, home to the majority of students. She further explains that in the last few years, there have been a number of incidents of fire and other health risk situations in the educational institutions.

Studies on implementation of safety standards and guidelines in secondary schools have been conducted: Omolo and Simatwa (2010) investigated the implementation of safety policies in public schools in Kisumu East and West Districts, Kenya. The study established that some safety policies were implemented to lesser extent as evidenced by the following cases: there was a decreasing trend in conducting fire drills, fire extinguishers were found in only 26.6% of the schools, there was overcrowding in 70% of the schools. Constraints in the implementation of safety policies included inadequate funds, time, capacity, transport and coordination. Based on these findings it was concluded that the overall implementation of safety policies fell short of the requirement as stated in the safety standard manual and policy circular hence the purpose of the current study is to determine why safety standards are not being implemented fully in all public secondary schools in Marani District, Kenya. The study recommended that: the Ministry of Education should ensure that head teachers reside in school and implement safety policies, head teachers should ensure that fire drills are conducted more regularly, the fire extinguishers required are purchased and head teachers should construct and maintain secure fences.
Kirui, Mbugua and Sang (2011) sought to determine challenges facing head teachers in security management in public secondary schools in Kisii County in Kenya. The study established that schools in Kisii county face security challenges such as strikes, arson, theft and fighting among students but the majority of head teachers, Board of Governors (BOG) members and security personnel are not versed with strategies useful in handling security issues. Most schools are not prepared for disaster management. The study concluded that school in general need to implement in full the Safety Standards Manual for Schools in Kenya guidelines recommended by the Ministry of Education.

Masese, Nasongo and Ngesu (2012) sought to explore the extent and panacea for drug abuse and indiscipline in Kenyan schools. The study concluded that drug abuse is rampant in schools and is responsible for a plethora of indiscipline cases. As such there is need to address this menace.

Maphosa and Mammen (2011) sought to establish teachers’ insights into the most prevalent form of learners indiscipline and ascertain how the insights reflect on safety and security in schools and classrooms in South African Schools. The study found the following forms of indiscipline: absenteeism, truancy, bullying, threatening other learners, theft, verbal attacks on fellow learners, assault on fellow learners, graffiti on classroom and toilet, vandalizing school property, verbal attacks on teachers, substance abuse, sexual harassment and indecent
assault on female learners were prevalent forms of indiscipline. The study concluded there were numerous disciplinary problems in schools as reported by teachers ranging from the minor to more serious ones and recommended that teacher should always be on the look out for different forms of learner indiscipline in schools and classes in an attempt to create safe and conducive learning environment.

Ruto (2009) examined the extent of sexual abuse against school children in Kenya and reasons attributed to it. According to the findings 58 of every 100 children have been sexually harassed while 29% boys and 24% girls reported to have been forced into unwanted sex. The main perpetrators of the violence were mentioned as peers.

Nderitu (2009) sought to investigate disaster preparedness in public secondary schools in Githunguri Division, Kiambu District. The major findings of the study were the Ministry of Education safety guidelines had not been adequately implemented in schools. The study established that lack of funds was a major constraint in effective implementation of the safety requirement. The study recommended enhanced school inspection, provision of funds and integration of disaster management in the school curriculum. The study is somehow similar to the current study however the point of departure is that while the study was based on the Wangai policy circular the current one is based on Safety Standards Manual
(Republic of Kenya, 2008). Secondly while the study was carried in Githunguri Division the current study was based in Marani District, Kenya. Nderitu (2009) recommended for a replication of a similar research in other district to facilitate more valid conclusions and recommendations.

All schools need to adhere to the safety standards and guidelines to ensure the safety and health of both children and staff. Unfortunately, some schools do not always adhere to the standards and guidelines, which has led to damage of property, injuries and loss of precious lives through fire and other related health risk situations. This accounts for the Safety Standard Manual for schools in Kenya. The literature reviewed for this study was based on the research objectives.

2.1 Safety Situation in Kenyan Secondary schools.

According to Ruto (2009) learning institutions in Kenya have gradually gained notoriety as avenues of sexual assault since the infamous, St. Kizito incident where 70 girls were raped while 19 other lost their lives when their male peers descended on them during what was supposed to be a school strike.

Omolo and Simatwa (2010) found out that in public secondary schools in Kisumu East and West Districts, Kenyan 70% had emergency doors, 60% had safety instructions prominently displayed in laboratories and workshops, 50% had successfully implemented policy requiring windows to open outwards and be
without grills, 93.33% had perimeter fences and secure gates with security personnel. On safety practices the study found out that regular inspection of the school plant had been implemented by 73.33% while 26.67% of schools had not.

Kirui, Mbugua and Sang (2011) concurs with Omolo et al (2010) that almost all school compounds 96.33% were fenced using either barbed wires or live fences 33%. They further recommend that although establishing a good live fence is very involving, it is also stronger and tends to last longer when compared to barbed wire.

Kuria (2005) while presenting a seminar paper at Kenya Education Staff Institute (KESI) on security in educational institutions reinforces the same views as Kirui et al (2011) that a chain link fence is deterrence against illegal entry into any premise; however a determined intruder can easily negotiate such a fence. It is advisable bougainvillea hedge be planted along the fence thus improving its deterrence. Regular trimming and inspection of the fence should be conducted to mend broken areas.

Nderitu (2009), found out that 55% head teachers and 62% teachers felt that their school fences were not firm enough to deter illegal entry into their premises, 82% head teachers and 62 % teachers felt their were adequate security personnel in their institutions, 64% head teachers and 77% teachers disagreed that schools had
adequate security lighting, 82% head teachers and 82% teachers said that schools had not established school security committees. On inspection the study found that 73% head teachers and 76% teachers revealed schools are rarely inspected.

Kenya has a long history of disasters ranging from simple to natural disasters. These disasters include road accidents, fire tragedies, tribal clashes, terrorist attacks, drought, floods, HIV and AIDS pandemic just to name a few. The East African Standard (1998) identified the Bombululu fire tragedy in which 25 school girls lost their lives in 1998 following a mystery inferno, there is also the 1991 St. Kizito tragedy where 19 girls died following riots and rape orgy and the 1993 Hawinga girls ordeal in which a 20 member gang raped 15 girls and assaulted their headmistress.

In 1994, 18 Kirwara secondary school students and their teacher perished in a matatu crash in Getanga, Muranga District. The following year, 13 Ortum secondary school students died while 30 were injured following a crash on their way to the national music festival in Nairobi. Others past disasters occurred on the 23rd May, 1999, four prefects were locked up by their fellow students and burnt to death (Mwaniki, 1991:1). Later on 7th March, 2007:10 thugs broke into the school and terrorized students before setting the administration block on fire. On July 19, 2004 a student was burnt to death at Mbiuni High School, Machakos District after colleagues torched dormitories (Standard Newspaper)
On October, 19th 2010 two students were burnt to death at Endarasha Boys secondary school in Kieni West District and burnt down one dormitory (Njagi 2010:5). On September, 29th 2010 thirty five pupils were injured at Osinoni Primary school in Transmara West District. The pupils sustained serious burns when lightning struck. (Daily Nation).

On Tuesday 2nd November, 2010 a dormitory was set ablaze in Kimothai Boy’s High School in Kiambu where students were left counting losses after their belongings were reduced to ashes (Daily Nation 2010:10). On 19th November 2010 two students were injured and property worthy thousands of shilling reduced to ashes following a dormitory fire at Naivasha High School, (Gitonga 2010:20).

In view of the foregoing there was need to conduct a study on the implementation of safety standards and guidelines in public secondary schools in Marani District, Kenya.

2.1.1 Safety Programmes

According to Anderson (1980), school safety program means pursuit of the normal environment in which hazards are reduced to a practical minimum and the behaviour of the pupils is adapted to safe and effective living. Physical hazards can be reduced if they are recognized and modified.
Studies and survey reveal that about 43% of accidental deaths among school-age children are connected with school life. Of these accidents about 20% occur in school building, about 17% on school ground, and about 6% on the way to and from school. Another 20% of the fatal indoor accidents occur in halls and on stairs shops and laboratories account for about 18%, and other classrooms account for 14% (Anderson et al, 1980).

Table 2.1 Injuries of school children by location

<table>
<thead>
<tr>
<th>Location</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>School buildings</td>
<td>24</td>
</tr>
<tr>
<td>School grounds</td>
<td>28</td>
</tr>
<tr>
<td>On way to and from school</td>
<td>5</td>
</tr>
<tr>
<td>Home</td>
<td>20</td>
</tr>
<tr>
<td>Others</td>
<td>23</td>
</tr>
</tbody>
</table>

Source: National Safety Council (U.S.A)

(ii) School buildings

Clarke (1964), argues that school buildings should be adequate in size and arrangement for the number of pupils enrolled and for the type of education the community wishes to furnish for its future citizens. They should be so constructed as to provide a healthful and safe environment for the pupils and
teaching personnel. They should follow the minimum specified standards as set up by the school board and the state department of education.

Clarke (1964), summarizes a health school environment to include the following factors: good and safe water supply; ample toilet and washing facilities; adequate sewage disposal; sanitary lunch room facilities and accessories; proper ventilation, heating and lighting; adjustable seats and desks; physical education and recreation facilities and adequate first aid equipment supplies and facilities.

(ii) Safety Education

Mayshark and Irwin (1968), note that safety should be integrated with other schools subjects and activities. Some of the areas and topics that should be taught and explored at the high school level are street and the high school level are street and highway accidents, water safety, rail, road safety, home accidents, use of electricity appliances, use of gas and gas appliances, burns, falls, use of flammable materials, school accidents, fire prevention, safe use of laboratories, safety in aviation, safety in industry, forest conservation, first aid, danger of contaminated food, poisons, injurious plants and animals, alcohol and narcotics.
Anderson and Creswell (1980) suggest that every school building should have at least one fully stocked, conveniently located first aid cabinet. In addition to at least one complete cabinet in the building; each classroom may have a first aid kit. This kit should be regarded primarily as a health education aid and secondly as a device for first aid. A responsible person should be in charge of first aid cabinet, kits, and supplies and adequate supplies should be at hand all times.

(iii) School safety sub-committee

The MOE Safety Standards Manual for Schools recommend that each school should establish school safety committees whose responsibility shall be overseeing school safety and enhance safety in schools (Republic of Kenya, 2008). Armstrong (2006) explains that the role of safety representatives and safety committees should be defined and duties summarized. Basically the roles should include safety inspection, audit and prevention of accident.

2.1.2 Indicators of school safety

According to the Safety Standards Manual for schools in Kenya (Republic of Kenya, 2008:10), a safe school should have the following indicators: High rate of enrolled learners; strong focus on teaching and learning, reflected by better academic performance and all round character development amongst its learners; visible strategies in promoting the rights of children as provided in the convention on the rights of the child and in children’s Act; visible
strategies in promoting the rights of children as provided in the convention on the rights of the child and in children’s Act; active participation of community in school programmes; visible presence of key stakeholders such as relevant government officials, private sector representatives, religious leaders and representatives of Non Government Organizations (NGOs) in providing material, psychological and spiritual needs of the learners and staff; adequate and well maintained facilities such as toilets and sanitation facilities; clearly demarcated school grounds with proper fencing and secure gates/boundaries; an environment free from drug and substance abuse, trafficking and illegal hawking and low incidences of indiscipline.

2.2 Causes of Disasters in Public secondary schools

According to Ruto (2009) the safety and security of children in particular, should be paramount. All children and young persons should not only get a chance to go to school but also be safe and secure physically and mentally not only within the school precincts but also on their way to or from school and once they get back home. It makes little sense to end up with adults surging under childhood trauma of sex and drug abuse, people with life long mental scars after watching the ordeal of childhood friends and colleagues dying in dormitory fire if not a horror accident or a rape orgy. She further argues that in recent years concern has been expressed about the rising incidences of reported crimes targeting women and girls. Police records in Kenya documented 1989 cases
of rape in 2001 compared with 2908 reported cases in (2004). This represented a 46.4% increase. The actual figure is thought to be higher considering that not all violations are reported. The World Health Organization (WHO) estimates that 36 – 62% of all sexual assault victims are aged below 15 years.

A study by Kombo (2005) in selected schools in Kenya shows that the type of a school one attends has an influence on drug abuse among students. According to him, experimentation with common drugs was more frequently reported by Kenyan youth who have attended day schools rather than boarding schools. The reasons given were that boarding school learners were more closely monitored while day schools students are often more exposed to drug abuse as they move to and from school daily. Research done by Johnstone (2000) showed that drug abuse is not just confined to day schools where students can access drugs easily because they are confined within the school premises students in boarding schools have access to drugs.

Johnstone (2002) further concurs with Kombo that the percentage of students in day schools who take alcohol is higher than those of boarding schools (30.3% and 21.7%), respectively. This can be attributed to the fact that they are not confined within the school premises.
Table 2.2: Type of school and drugs (Johnstone, 2000).

<table>
<thead>
<tr>
<th>Regular alcohol use</th>
<th>Boarding (%)</th>
<th>Day school (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>21.7</td>
<td>30.3</td>
</tr>
<tr>
<td>No</td>
<td>78.3</td>
<td>69.7</td>
</tr>
</tbody>
</table>

The Report of the Task Force on student discipline and Unrest in Secondary Schools reported that drug abuse is a major cause of disasters (Republic of Kenya, 2001). The report revealed that varied types of drugs and narcotic substances are readily available in some localities where schools are situated. Such drugs and substances are bhang, marijuana, tobacco, chang’aa, Kuber and glue. The substances are sold to students without the knowledge of parents.

Also following the death of two students burnt to death in suspected arson attack on dormitory at Endarasha Boys Secondary school in Kieni West District, Fr Joseph Wambugu, the Chaplain of the school while responding to journalists blamed the incident on drug abuse. “The school being surrounded by a big slum you cannot rule out entry of drugs” He said. The same sentiments were echoed by the editor, (Njagi 2010).

According to Ngige (2010) the gruesome killing of two boys at Endarasha Boys secondary school is an indictment of the institutions management for failing to adhere to the laid down safety procedures. The Fr. Wambugu
dormitory where the students met their untimely death had its windows fitted with grills and wire mesh which made it difficult for the students to have ample escape routes. Furthermore the dormitory had a capacity to host 120 students but had 180 which means admissions were not tied to bed capacity since sharing of beds is prohibited in schools. In addition investigation into the tragedy revealed that at the time of the accident one of the emergency doors of the dormitory had been bolted from outside. The dormitory was also holding more beds than it is required.

According to Merton (1971) people use drugs because of their ready availability and promote the interests of those who are in a position to benefit financially from their sale. If there in easy access to drugs, a student may decide to use them. Drugs are available locally and one needs not to struggle to get them. It is well known fact that some students have secret ways of obtaining drugs and selling them to fellow students. In some cases members of the public or day scholars from other schools easily walk into the school and sell their commodities (Ndegwa, 1998).

Drug abuse among the youth especially in secondary schools has endangered their lives and this has caused a lot of concern as the vice indeed has been identified as a major cause of problems experienced in secondary schools in Kenya (Gikonyo, 2005).
In his study, Matsoga (2003) itemizes the most common form of indiscipline in schools as follows: bullying, vandalism, alcohol and substance abuse, truancy, inability and unwillingness to do assigned class work or homework, refused to take given orders, teasing of other learners, disrespecting educators or other learners, carrying dangerous weapons the school, threatening other learners with dangerous weapons, assaulting other learners, murdering other learners or educators, viewing pornographic materials at school and indecent dressing.

The issue of violence by learners is a disciplinary cause for concern the world over (Rayburn 2004, Demato and Curcio 2004). If schools experience rampant indiscipline as exhibited in the various forms as noted by Matsoga (2003), teaching and learning become a problem. Disciplined classroom environments are a prerequisite for effective teaching and learning. The issue of possession and use of dangerous weapons make school unsafe and there is need to control such acts of indiscipline.

Kirui et al (2011) found out that a total of 63% head teachers reported having experienced security problems in their schools in Kisii county. The result is similar to that of security guards who 70% indicated that they have had security challenges in the schools they were guarding. He further states that the nature of security challenges faced by schools included strikes, theft of (school or student)
property by students, subordinate staff and local community, sneaking, fighting among students, arson and trespasses.

The study further revealed the most widespread effect of insecurity was cited as incurring additional cost for maintaining security (64%), emotional and physical safety learners (61.5%), learning and completion of syllabus (57.7%), student truancy / absenteeism (46.2%), destruction of school property (34.6%), loss of life /injuries (26.9%), underutilization of school resources (26.9%) and student transferring from the school affected (26.9%).

Inspite of the policies that the government has put in place with regard to management of education, learning institutions have been faced with increased cases of student unrest which have taken a dramatic turn for the worse not only are they violent and destructive but they are premeditated and planned to cause maximum harm to human life. Cases of student unrest have intensified with more schools being burnt down, property destroyed and with more innocent lives being lost as happened in the arson attack in Kyanguli secondary school in Machakos District, where 68 children were burnt to death and scores injured (Nderitu 2009).
Some tragedies in schools are started by students as an expression of dissatisfaction with school administration. According to the editorial of the standard 19th October 2010, the assaults can be attributed to harsh living conditions and high handedness of school administrators thereby curtailing freedom of boarding schools.

In most cases school fires are caused by students as evidenced by the Kyanguli and Endarasha cases. However sometimes they are caused by external arsonists. A more recent case is at Eronge secondary school in Nyamira North District where students spent the night in the cold after arsonists set their dormitory on fire. Property was reduced to ashes as teachers, students watched helplessly as the school has no fire fighting equipment. (Daily Nation 24th September, 2010).

Also in 2007 according to the principal Magena High school in Gucha District by then thugs broke into the school and terrorized students before setting the school on fire (The Standard 7th March, 2007:10). This calls for school managers to nurture good relations with their communities for the interest of the security and well being of their students.

The Report of the Task Force on Student Discipline and Unrest in Secondary Schools was informed of instances where a newly posted head-teacher’s rejection by the parents led to indiscipline. Such rejection take various forms
such as physical force against the head-teacher, locking the school office and/or classroom and demonstrations by parents. The students copy these examples and slight displeasure against the school administration result in school disturbance and indiscipline. Therefore the culture of violence and copy cat strikers and students who incite colleagues has become so engrained in students and appears like the only thing that bears the desired result, (Republic of Kenya, 2001).

Further the Report of the Task Force on Student Discipline and Unrest in Secondary Schools noted the role of the mass media both print and electronic is significant in education, entertaining and informing the public. However the Task force reported that in their effort to inform and educate the public a number of media houses give prominence to negative issues. The excessive violence seen in our television screens inculcate a culture of violence in our students. Students have been exposed to all forms of violence in the print and electronic media owing to the steady rise of the uncensored videos, films and novels.

Some schools have experienced natural disasters caused by environmental factors like floods, strong winds, lightening and thunderstorms. The occurrence of these disasters results to extensive damage of school property, loss of lives and injuries. For example 35 pupils of Osinoni primary school sustained serious injuries when
lightening accompanied by thunderstorms struck their school in Transmara West District (Daily Nation 29th September, 2010).

2.3 Constraints in the Implementation of Safety Measures

Threats to school safety can emanate internally within the school environment or externally from the wider community as indicated in the MOE Safety Standard Manual (Republic of Kenya, 2008). The main causes of accidents in schools are human related, caused through carelessness, inattentiveness, ignorance, irresponsibility or negligence on the part of the learners, staff or other stakeholders in general. Accidental injuries can be caused by: slippery surfaces, wet greasy spots, clutter on the floor (too many scattered things) poorly placed furniture such as desks, benches and tables, weak railings, insufficient lighting, sitting carelessly on desks for example with feet blocking aisles (paths), poor ventilation and sharp instruments.

Kirui et al (2011) found out that only 37% of school heads had attended any security management course as compared to 21.4% of Board of Governors members and 40% of security guards. This indicated that most school heads and B.O.G members who are responsible for making decision concerning security may be approaching security issues ignorantly and thereby endangering life and property. The study further found out that the budgetary allocation by the B.O.G on security issues was below 10% of the total school budget. This was due to
competing interests. In addition the study found out about 82% of the schools reported that they do not have qualified security personnel. Also 67% of schools heads were of the opinion that security guards are not well remunerated and motivated.

Omolo et al (2010) found out those factors influencing the implementation of safety policies in public secondary schools in Kisumu East and West District as stated by head teachers included; inadequate funds (86.67%); late school fee remittances (30%); low enrolment (6.67%); inadequate time (10%); inadequate capacity (26.67%) and lack of coordination from the Ministry of Education (6.67%). The same views are shared by Otieno et al (2010), who report that the Principal Wayaga secondary school contends that most schools are poor and cannot afford fire extinguishers. The District Education officer (DEO) Homabay, says that the situation is dire and needs Government attention because schools find it expensive to purchase gear to fight fires and even those with fire extinguishers cannot maintain them. This is why poor schools rely on prefects guards leading to lapses. Also the principal Kisumu Girls’ is quoted to have remarked that even after buying some of the equipment, it was expensive to hire experts to train students and staff on using them.

According to Otieno, Too, Anyuor and Okwayo (2010), the Principal Kisumu girls whose school has 1,045 students is quoted to have said that the school has
fire extinguishers which are not enough and even the few which are available are expensive to maintain.

In the past years due to the rising incidents of fire outbreaks the government was forced to give 810 million shillings to schools to buy fire equipments. The Director of Higher Education by then Mr. David Siele during the disbursement of this money was quoted to have said there has been many incidents of fire outbreaks in our schools and that we should ensure this situations comes to an end. (The Standard 2\textsuperscript{nd} August, 2006: 4). The Ministry of Education Science and Technology (MOEST) disbursed 810 million shillings to all 717 provincial boarding schools by then to purchase fire equipment. The provincial secondary schools were selected because of their high enrolment and boarding facilities. The National schools were left out because they had received similar funds in the past while the District schools were left out because they are in most cases day schools.

This raised a great concern for the study because District schools are the majority in Marani District 24 (86\%) schools out of 28 schools in the District and yet fire fighting equipment are provided selectively. These schools also require fire fighting equipment in their classrooms, offices, laboratories, dormitories, kitchen and workshops. This is because District schools are either Boarding or Day and Boarding schools. A more recent case is at Eronge Secondary school in Nyamira
North District where property was reduced to ashes in their dormitory as teachers, students and neighbouring community watched helplessly as the school has no fire fighting equipment, (Daily Nation 24\textsuperscript{th} September, 2010).

2.4 Strategies put in place to prevent disaster in organizations

Dinker, Kemp, Baum and Syder (2009), argue that public schools use a variety of practices and procedures intended to promote safety of students and staff. Certain practices such as locked or monitored doors or gates are intended to limit or control access to school, while others like metal detectors, security cameras and drug sweeps, are intended to monitor, to restrict students’ and visitors behaviours on campus.

Other safety and security measures include: schools require visitors to sign in or check in, controlling access to school buildings, by walking or monitoring doors during school hours, students to wear badges or picture identity cards, uniform, faculty required to wear badges or picture identity cards, provision of codes of student conduct, locker checks, security guards badges and locked entrance or exit door during the day are required that visitors sign in.

According the National Clearing House of Education facilities, school safety is a human concern that every school and community must take seriously and strive continuously to achieve. It is also a legal concern; schools can be held
liable if they do not make good faith effort to provide a safe and secure school enrolment. The school should create a standing committee on hazard mitigation. The committee job is to prepare the school’s mitigation plan.

Knowledge about effective school safety practice has expanded considerably. Shaw (2002) in a study on international experiences and actions in promoting school safety states that new collections of exemplary, good or promising practices have been published. Data have been collected and tools developed that support effective practice. Manuals, guides and training materials have been written. A numbers of national, regional and international meetings have been organized by bodies such as the Council of Europe, the European Forum for urban Security and the Australian Institute of Criminology. Each of these developments has reinforced the need to work in more collaborative, comprehensive ways in improving safety in schools.

A School Survey on Crime and Safety (S.S.O.C.S) report states that in the 1996/1997 School years, 90% of the schools reported zero tolerance policies for firearms. In the same period of time schools implemented a number of approaches to enhance safety and security. Ninety six percent of schools required visitors to sign in before entering into the school plant. Eight percent of the public schools had a closed schools policy that prohibited students from leaving school premises except at specified times. Six percent of schools had policemen or other law
enforcement personnel stationed thirty hours a week or more at the school in a typical week (United States Department of Education, 2004).

Cavanagh (2004) in a report on schools responses to the threat of terrorism states that in the implementation of school safety and security policies in European countries has been greatly influenced by school tragedies and near misses. He states that since the 1993 school hostage crisis in France City of Neuilly-Sur-Seine, police authorities regularly coordinate security with school officials. Police and school officials meet at the beginning of each term to work out security details of schools. In Paris, policemen are stationed in front of public schools to provide, maintain the traffic flow and check suspicious activities.

Omolo et al (2010) found out that strategies devised by head teachers to enhance the implementation of safety policies included: integrating safety activities into daily school routine (20%); regular inspection of school plant (36.6%); training staff on emergency preparedness (10%); purchasing the required safety equipment (50%) and conducting regular emergency drills (3.33%). Quality Assurance and Standards Officers (QASOs) had devised several strategies: recommending compliant head teachers for promotion 50%, facilitating the provision of funds for purchase of safety equipment 50%, providing communication between stakeholders 50% and going for regular in-service courses on safety implementation by 50%.
Furthermore the study found out that 26.67% out of 30 schools had fire extinguishers 66.67% of the head teachers used professionals in site selection, development and maintenance of school infrastructure, 73.33% of the schools had been inspected at least once in preceding year. Head teachers had the roles of monitoring and evaluating the school plant to ascertain safety needs, appointing safety committee members and promoting as safe zone culture.

Kirui et al (2011) found out that almost (89.9%) had a guidance and counseling department but slightly more than 40% of these departments are run by teachers who are not qualified in guidance and counseling. The study further found measures employed by secondary school head teachers in security management were: 66% of schools had suggestion boxes, 33% of schools have crisis management policy plan, 22% organized for lectures from law enforcers in sensitizing the students on the need for maintaining security and development of disaster preparedness plan.

Pudo (1998) asserts that a variety of leisure activities and recreational activities should be strengthened in learning institutions so that students can avoid boredom and idleness. Therefore, young pupils in schools and community should involve themselves in activities such as drama, sports, music, church activities, reading good books and magazines to avoid being lured into drugs in their idleness.
Lulua (2008) notes that Uganda has implemented the Safe Schools Contract (S.C.C) as one of the identified interventions which strengthen the roles of teachers, pupils, parents and their involvement in children’s education to enhance quality learning.

According to Otieno (2010), Education Permanent Secretary (P.S) James Ole Kiyiapi is quoted to have said following the Endarasha, Kisii High school and Itierio secondary school tragedies that it will be mandatory for head teachers and their deputies to undergo refresher courses in administration to equip them with public relation skills to ensure harmonious relation between the administration, students and the wider community. In addition students will be involved in decision making within the school and the system well defined. According to Ole Kiyiapi, private firms will conduct training of principals on how to handle disaster management equipment such as fire extinguishers and first aid kits. It will also be mandatory for schools to conduct drills that will ensure safety and test the preparedness of an institution incase of a disaster. Students will use the first two days of a term to conduct emergency drills to ensure they are prepared to handle disaster.

Otieno (2010) reports that the Kenya National Fire Brigade Association (Kenfiba) wants fire education introduced in the primary and secondary school curriculum. This move was as a result of a recent incidents of fire in schools that have
caused deaths and injuries. The association also expressed willingness to train teachers, students and others staff on fire education. The Nyanza Provincial Director of Education is quoted to have said that following the tragedy in which three pupils were struck by lightening in Rongo all schools in Nyanza will be fitted with lightening arresters.

2.4.1 Government Response to Disasters in Schools

Each time tragedies happen, the whole nation mourns, parliament is even closed in mourning. The schools concerned are renamed, as in the St. Kizito and Bombululu. We curse saying it could have been prevented, and promise ourselves that it will never again happen. Government officers issue directives ostensibly to ensure it will never happen again. Soon after, we forget and things get back to normal—the normality of laxity and insensitivity until another tragedy strikes. And the nation mourns once again, (The Standard 7th April 1998:6).

The government response has been.

(i) Appointment of task force (Report of Task Force on Student Discipline and Unrest in School 2001 – Wangai Report) was as a result of incidents of student unrest in secondary schools and in view of the increasing concern over the declining rates of access, retention and completion of both primary and secondary levels.

(ii) Circulars issued by the Ministry of Education. Following the Kyanguli Secondary School tragedy which took place on 27th March 2001,

(iii) Appointment of a commission of inquiry. Following the Bumbululu Secondary School tragedy the government appointed a commission of inquiry led by retired Bishop Lawi Imathiu.


2.5 Summary of Literature Review

The literature reviewed highlighted that the government on its part has stipulated several safety measures in educational institutions through various legal instruments namely: the Education Act (Cap 211), Public Healthy Act (Cap 242),

In addition the MOE has developed a school safety manual for use for all schools. The guidelines are envisaged to improve the quality of education and training services. The manual serve as a blueprint for enhancing the safety of schools in Kenya. The safety situation, causes of disasters, constraints in the implementation of safety measures and strategies on disaster prevention in organizations was reviewed. It is very clear that any school that ignores these aspects of learner safety may inflict considerable damage to the physical, social and mental health of school going children.

The literature review revealed that Kenya has a long history of tragedies and disasters that have hit schools especially in the last decade. These have led to damage of property, injuries, and loss of precious lives. The tragedies and disasters are caused by internal or external factors. Internal factors emanate from within the school while external factors are basically from outside the school.

Despite the government efforts, the available literature revealed that most schools have no capacity to handle emergencies, and are yet to implement Safety Standards Manual produced four years ago, hence some schools are sitting on a time bomb should there be an emergency. The available literature did not reveal
why safety standards and guidelines had not been implemented in all schools by the management. Studies have been carried out under different topics on school safety in Kenya but none has been done on the implementation of safety standards and guidelines in public secondary schools in Marani District as outlined in the Safety Standards Manual. This creates a knowledge gap in the area of why safety standards and guidelines are not adhered to in public secondary schools in Marani District. Therefore the current study addressed this gap and gave recommendations on what should be done to enhance school safety in order to secure the safety of learners in particular and prevent occurrence of disasters in schools.
CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

The purpose of the study was to establish why MOE safety standards and guidelines had not been adhered to in all schools by the management meant to enhance disaster preparedness, discipline and academic performance in Marani District, Kisii County, Kenya. This chapter presents the research design, location of the study, target population, sampling procedures and study instruments. The final part deals with data collection procedures and data analysis techniques.

3.1 Research Design

The descriptive survey design was adopted to determine why MOE safety standards and guidelines had not been adhered to in all public secondary schools in Marani District, Kenya. It was relevant because it enabled the researcher to collect data from a sample of informants that was used to determine why the MOE Safety Standards and Guidelines were not adhered to in all public secondary schools in Marani District, Kenya. According to Orodho (2009), survey design is the most frequently used method for collecting information about people’s attitudes, opinions, habits or any of the variety of education or social issues. The design is in agreement with the views of Gay (1992), who contend that it is used to assess attitudes and opinion about events, individuals or
procedures. Therefore the design was used to collect information from head teachers and teachers in Marani District, Kenya by use of questionnaire.

3.2 Location of the study

The study was conducted in Marani District, which is one of the districts in Kisii County. Marani District is divided into two educational divisions namely; Marani and Kegogi. The District had 28 registered public secondary schools. The District had only three single sex boarding schools while the rest were Mixed Day or Boarding/Day schools. Marani District was chosen for the study because of its familiarity and accessibility to the researcher who teaches in one of the schools in the District. Singleton, Straits and Strait (1993) argue that the ideal setting of any study should be easily accessible to the researcher. Furthermore, Marani District was studied because so far there is no research which had been undertaken to establish why the MOE Safety Standards and Guidelines had not been adhered to despite the schools being vulnerable to various disasters for example fire tragedies and student unrest.

3.3 Target Population

Target population refers to the population which the researcher wants to generalize results of a study, Mugenda and Mugenda, (2003). The target population for this study were 28 public secondary schools in Marani District, Kenya. The study population comprised 28 head teachers because they are in charge of
implementation of Ministry of Education Safety Standards and Guidelines and 242 TSC teachers who gave details on specific aspects of Safety Standards and Guidelines in their respective schools.

3.4 Sample and Sampling Procedure

A sample is a small group obtained from the accessible population, Mugenda and Mugenda (2003). The sample of public schools to be studied emanated from Mulusa (1999), who suggest that one third of the target population is representative enough to make estimate of characteristics being investigated. Hence out of 28 public secondary schools in Marani District, Kenya, 12 schools were sampled. This sample accounted for 43% of the total population which enhanced the study representation. Slavin (1984), observes that due to limitations of time, funds and energy, a study can be carried out from a carefully selected sample to represent the entire population.

Stratified sampling was used. The population was first subdivided into four mutually exclusive segments called strata, based on categories of one or a combination of relevant variables. Simple random samples were then drawn from each stratum, and then these sub samples were joined to form complete stratified samples which ensured that certain sub-groups in the population were represented in the sample in proportion to their members in the population itself, Orodho
(2009). This is in agreement with Mugenda and Mugenda (2003), who observes that, stratified sampling means that the sample consists of two or more sub-groups.

She further argues that the obvious advantage of stratified random sampling is that it ensures inclusion in the sample of the sub-group, which otherwise would be omitted entirely by other sampling methods because of their small numbers in the population. The goal is to achieve desired representation from various sub-groups in the population. The 28 public secondary schools were categorized into Boys Boarding, Girls Boarding, Mixed Day and Mixed Day/Boarding School.

Allocation of sample size among strata was selected from each stratum for the sample by use of sampling fraction. Since the population size of public secondary schools in Marani District is 28 schools and the researcher required 12 schools across the sub – groups (four strata) which were over and above 20%. The researcher started by calculating the sampling fraction. The sampling fraction is defined by the equation:

\[ \text{Sampling Fraction} = \frac{12}{28} = \frac{6}{7} = 0.4285714 \]
Therefore each category of the population was multiplied by the sampling fraction to obtain the corresponding sample size of each school type as shown in the table below:

Table 3.1 Population of the Study

<table>
<thead>
<tr>
<th>School Type</th>
<th>Number of schools</th>
<th>%</th>
<th>Sample size</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys Boarding</td>
<td>2</td>
<td>7.142</td>
<td>1</td>
<td>3.571</td>
</tr>
<tr>
<td>Girls Boarding</td>
<td>2</td>
<td>7.142</td>
<td>1</td>
<td>3.571</td>
</tr>
<tr>
<td>Mixed Day</td>
<td>21</td>
<td>75</td>
<td>9</td>
<td>32.142</td>
</tr>
<tr>
<td>Mixed Day / Boarding</td>
<td>3</td>
<td>10.714</td>
<td>1</td>
<td>3.571</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100%</td>
<td>12</td>
<td>42.857%</td>
</tr>
</tbody>
</table>

Source: Author, 2012

Simple random sampling was used to select schools which were sampled in each category. The lottery technique was applied where a symbol like YES was placed on 12 out of 28 public secondary schools. Small pieces of paper (of equal size, colour and texture) folded into equal size and shape, was placed in a container, mixed well and then each head teacher was allowed to pick one piece of paper at a time in their respective categories. In this case, the 12 head teachers who picked a yes, their schools were automatically included in the sample.
Purposive sampling was used to select 12 head teachers from the schools to be sampled. The 12 head teachers who picked a yes were included in the sample. According to Mugenda and Mugenda (2003), purposive sampling is a sampling technique that allows a researcher to use cases that have the required information with respect to the objectives of his or her study. The head teachers were picked because they bear the responsibility of implementing the safety standards and guidelines in their schools.

Gay (1992), says that a sample of 10% of the population is considered minimum while for small population 20% of the population may be required. Since the population size of Teachers Service Commission (TSC) teachers were 242 (188 males and 54 females) the researcher required 49 teachers across the gender (38 males and 11 females) which translated to slightly over 20%. The researcher again started by calculating the sampling fraction. The sampling fraction is defined by the equation:

\[ \text{Sampling fraction} = \frac{49}{242} \]

\[ = 0.2024793 \text{ (representative index)} \]
Table 3.2 Population of TSC Teachers

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>188 (38)</td>
<td>54 (11)</td>
</tr>
</tbody>
</table>

Source: Marani DEO’s Office

Simple random sampling was used to select teachers who were sampled from the sampled schools. The lottery technique was again applied to select the teachers proportionately from the twelve schools sampled. The 38 places were divided by 12 giving 3 slots per school type (sample size for males). Consequently boys boarding were allocated 3 males, girls boarding 3 males, Mixed Day 27 males and Mixed Day/Boarding 3 males for purposes of equity. On the other hand the 11 slots for females were divided by 12 giving 1 slot per school type hence Boys Boarding were allocated 1 female, Girls Boarding 1 female, Mixed Day 8 females and Mixed Day/Boarding 1 female.
3.5 Research Instruments

The study used a questionnaire as the main instruments of data collection. Best and Khan (1999), notes that a questionnaire enable the person administering it to explain the purpose of the study and give meaning of items that may not be clear. Furthermore a questionnaire has the ability to collect a large amount of information in a reasonably quick space of time, ensure anonymity, permit use of standardized question and have uniform procedures besides being easier to complete, Orodho (2009).

The questionnaire was used to elicit information on the safety situation, causes of disasters, constraints and strategies put in place to prevent disasters in public secondary schools in Marani District. The instruments contained both open and close-ended items. The open-ended items, gave respondents more freedom to

<table>
<thead>
<tr>
<th>School type</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys Boarding</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Girls Boarding</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Mixed Day</td>
<td>27</td>
<td>8</td>
</tr>
<tr>
<td>Mixed Day/Boarding</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

Source: Author, 2012
express their views or opinions and also make suggestions. Close-ended items guided respondents to give specific responses as given by the researcher. A rating scale to measure the opinion of the respondents on the safety situation and strategies which can prevent disasters was used. The scales used were Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD). Again on safety situation and strategies put in place to prevent disasters in public secondary schools the scales used were Very Frequent (VF), Frequent (F), Rare (R), and Very Rare (VR). The upper two positive scales implied safety standards and guidelines had been implemented in public secondary schools in Marani District, Kenya while the lower two negative scales implied partial implementation of safety standards and guidelines in public secondary schools in Marani District, Kenya.

A questionnaire for head teacher/teacher was used to collect data on their biography, safety situation in public secondary school in Marani District, causes of disasters, constraints in implementation of safety standards and guidelines and strategies put in place to prevent disasters.

### 3.6 Validity of Instruments

Orodho (2009) defines validity as the degree to which results obtained from the analysis of data actually represent the phenomenon under study. Validity therefore checks if the research instruments are doing what they are intended to do.
The research instruments were validated through the application of content validity procedures. According to Tyler (1971) this is a judgment made better by a team of professionals and in this connection the researcher established content validity by seeking expert judgment from his supervisors while developing and revising the research instruments. This was done by holding discussions, making relevant comments and suggestions that were synchronized with a view of either reviewing them or adopting them for pilot study.

Again two schools with similar characteristics with the schools to be sampled were piloted. Piloting is important because it helps in revealing deficiencies in a questionnaire, Mugenda and Mugenda, (2003). Therefore this ensured classification and improvement of content in the instruments administered for the study. This also enhanced the ability of the researcher to attain a good art of conducting interviews.

3.7 Reliability of the Research Instruments

According to Mugenda and Mugenda (2003), reliability is a measure of the degree to which a research instrument yield consistent result or data after repeated trials. Best and Khan (2001), define reliability as the level of internal consistency or stability over time of measuring research instruments. Thus instrument reliability is the degree of consistency that instruments or procedures demonstrate.
Further Mwanje (2001), notes that reliability is the consistency of your measurement or the degree to which an instrument measure the same way each time it is put to use under the same filed conditions with the same objects. Bell (1993), observes that piloting is one way of checking the reliability of instruments.

Reliability was assessed using test-retest method. According to Mwanje (2001), test-retest method is used to assess the consistency of a measure from one time to another. This research instrument was piloted at two different times to the same group to assess the reliability, Orodho (2009). Test retest reliability of 0.7 and above qualify the instrument for use in the study, Kerlinger (1983). The same views are shared by Orodho (2009), who states that a correlation co-efficient (r) of about 0.75 should be considered high enough to judge the reliability of an instrument. A comparison of the responses was done. Pearson’s product moment formula was employed to compute correlation co-efficient in order to establish its consistency.

### 3.8 Data Collection Procedure

An introductory letter was sought from the Department of Educational Management, Policy and Curriculum studies in Kenyatta University to carry out the research. Once obtained the researcher sought permission from the MOE to acquire a research permit to legally allow him conduct the study.
The researcher made preliminary visits to explain the purpose of the study verbally and made the necessary arrangements for the administration of the questionnaire and data collection. The researcher self administered the questionnaire to each of the respondents and collected them immediately. This ensured achievement of a good return ratio and helped respondents get a chance to seek clarification on items which proved difficult.

3.9 Data Analysis

According to Kombo and Tromp (2006), data analysis refers to examining what information has been collected in a survey or experiment and making deductions and inferences while Kerlinger (1973) defines data analysis as categorization, ordering, manipulation and summarizing of data to obtain answers to research questions. Therefore on completion of data collection the researcher checked for completeness of the filled questionnaire and coded them.

Data collected was analyzed based on descriptive statistics. Quantitative data from questionnaires was analyzed manually by computing various statistics. Qualitative data was analyzed through thematic analysis then converted into a write up using coding categories related to research questions. Data was sorted, coded and keyed into Statistical Packages for Social Sciences (SPSS). In analyzing the collected data percentages and averages were used. The results were presented using graphs, pie
charts, frequencies, percentages, tables and figures. For each table and figure there are descriptions.
CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter entails the findings of the study based on the data collected from the field guided by the study objectives and research questions. The study sought to establish why safety standards and guidelines have not been implemented fully in public secondary schools in Marani district, Kisii County, Kenya. A sample size of 49 respondents of whom 12 head teachers and 37 teachers was used. The data was analyzed and the information presented in form of pie charts, bar graphs and tables. The interpretation and presentation of data was guided by the study objectives under the following sub headings:

i) Demographic information

ii) Safety situation

iii) Causes of disasters

iv) Constraints in implementation of safety standards and guidelines

v) Strategies put in place to prevent disasters.

4.1.1 Highest Qualification of Head teachers/teachers

The study sought to show the highest academic qualification that the sampled head teachers and teachers had attained in their study. Figure 4.1 shows the responses. According to the findings, 67% had attained BED while 12% had attained
Diploma in Education and BA/BSC/PGDE respectively. However only 2% had attained M.Ed. This implied that all respondents were found qualified enough to give relevant information on implementation of safety standards and guideline in public secondary school in Marani District, Kisii County, Kenya.

![Figure 4.1 Highest Qualification. Source: Author, 2012](image)

### 4.1.2 Period as a Head teacher

The study sought to show responses on how long the respondents had been head teachers in the various schools. Figure 4.2 shows results of the findings. The study established that 45% had been head teachers for 6-10 years while 41% had been head teachers for 1-5 years. Notably 6% had been head teachers for 11-15 years while 2% had been head teachers for 16-20 years and 20 years and above respectively. This implied that a good number was found qualified enough to implement safety standards and guideline in their school as well as able to give a
true representation of the safety situation in their schools as implementers of government policies.

Figure 4.2 Period as a Head teacher. Source: Author, 2012

4.2 Safety Situation in Schools

This section sought to show the safety situation guidelines that the different schools had in place based on the objective of safety situation in public secondary school in Marani District, Kisii County, Kenya.

4.2.1 Existence of a Title Deed

This section sought to capture responses on whether the schools possessed a title deed. Figure 4.3 shows the results of the findings. The study established that 57% of the respondents indicated that their schools owned title deeds while 37% pointed out that their schools lacked title deeds. However only 6% were not sure
whether their schools owned title deeds. This implies that some schools have not complied with this guideline which is a vital document of ownership. This is contrary as noted in the background information with the Commission of Inquiry in the Education System (2000), which recommended that ownership of the school or institution land be established before educational institutions may be run. It is important therefore for such schools to liaise with the Ministry of Lands or any relevant authority to secure ownership of the land in which they stand.

Figure 4.3 Existence of a Title Deed. Source: Author, 2012

4.2.2 Circular on Health and Safety Standards

Figure 4.4 sought to show whether the schools had Circular on Health and Safety Standards. Majority of the respondents 78% indicated that they had a circular on health and safety standards in their schools. However 18% pointed out that there were no circulars on health and safety standards. This was interpreted to mean that implementation of safety standard and guideline was partial because over 18% of
teachers could not review safety guidelines that affect the welfare of learners and staff because their schools did not have a circular on health and safety standards circular from the Minister of Education.

Figure 4.4 Circular on Health and Safety Standards. Source: Author, 2012
### 4.2.3 Safety Situation

Table 4.1 shows responses in regard with guidelines on safety situation in the learning institutions.

<table>
<thead>
<tr>
<th>Safety situation guidelines</th>
<th>IMPLEMENTED</th>
<th>NOT IMPLEMENTED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SA  F  %</td>
<td>A  F  %</td>
</tr>
<tr>
<td>The school physical infrastructure are constructed and occupied in consultation with approval of Min. of public health</td>
<td>8 16.3</td>
<td>26 53.1</td>
</tr>
<tr>
<td>The school is well fenced to deter unauthorized entry into the compound with only one entry point</td>
<td>10 20.4</td>
<td>25 51.0</td>
</tr>
<tr>
<td>All visitors are screened before entry into the compound</td>
<td>2 4.1</td>
<td>11 22.4</td>
</tr>
<tr>
<td>There is adequate lighting in the school</td>
<td>6 12.2</td>
<td>26 53.1</td>
</tr>
<tr>
<td>All doorways in the school open outwards and are not bolted from outside</td>
<td>5 10.2</td>
<td>16 32.7</td>
</tr>
<tr>
<td>Windows in the school are without grills and wire mesh</td>
<td>3 6.1</td>
<td>16 32.7</td>
</tr>
<tr>
<td>The school has constituted a strong safety sub-committee.</td>
<td>2 4.1</td>
<td>16 32.7</td>
</tr>
</tbody>
</table>

**Source:** Author, 2012
According to the study, majority of the respondents 53.1% agreed that the school physical infrastructure are constructed and occupied in consultation with approval of Ministry of Public Health, 16.3% strongly agreed while 26.5% disagreed and 2.0% strongly disagreed. This was interpreted to mean that some educational institutions have some facilities that do not meet the health and safety standards and guidelines as specified in the Education Act Cap 211, Public Health Act Cap 242 and Ministry of Public Works building regulations. As noted previously in the background to the study information according to the Commission of Inquiry in the Education System in Kenya (Republic of Kenya, 2000), minimum standards of infrastructure must be approved before any educational institution is established and run. The same views are expressed by the Education Act, The Public Health Act and the Ministry of Public Works building regulation. Also as noted by Clarke (1954), in the literature review school buildings should meet minimum specified standards before they are allowed to operate. Omolo et al (2010) concurs and indicated 66.7% of the head teachers used professionals in site selection, development and maintenance of school infrastructure. The policy requiring that qualified professionals be used in site planning, construction and maintenance of school building is a safeguard against quacks that are likely to put up unsafe buildings that endanger lives of learners. In the recent past Kenya has witnessed an increasing numbers of buildings collapsing due to poor workmanship by unqualified artisans.
On school fences 51% of the respondents agreed that the school is well fenced to deter unauthorized entry into the compound with only one entry point to the compound manned by security guards, 20.4% strongly agreed while 24.5% disagreed and 4.1% strongly disagreed. This implied that some schools had not complied with the safety guidelines hence it is possible for arsonists and illegal gangs to gain entry into the compound through illegal routes rather than through the gate. Interpretively the reported robbery incidents may be attributed to failure by the school management to fence the school adequately as well as hire competent security guards. This is in agreement to Montee (2008), who argues that even internationally Missouri school children in the USA are faced with the challenge of unauthorized entry into the school buildings. This findings is somewhat similar to other studies by Nderitu (2009); Omolo et al (2010) and Kirui et al (2011) that most schools had met some effort to fence their schools compound with only one entry point. However, the few schools which had not implemented this safety guideline should prioritize fencing as an agenda in school due to its sensitive nature. Head teachers have a basic requirement to safely contain children under their care during school hours and at night. This can not take place when schools have no fence or have weak and inadequate fences prone to intrusion.

Also 57.1% of the respondents disagreed that all visitors are screened before entry into the compound, 14.3% strongly disagreed while 22.4% agreed and 4.1% strongly agreed. This was interpreted to mean that majority of the school had not
complied with this safety guideline thus creating room for unscrupulous individuals with ill motives to have access to the school therefore creating a safety threat to both learners and staff. This is contrary to Dinker, Kemp, Baun and Syder (2010), who as noted in the literature review advocate for monitored gate to limit access to school to promote safety of students and staff as well as require visitors to sign in to access school buildings.

Furthermore 53.1% agreed that there was adequate lighting in the school, 12.2% strongly agreed while 14.3% disagreed and 14.3% strongly disagreed. This implied that lighting was adequate in most schools except in some schools which need to comply with this guideline. This is in line with Clarke (1964), who underscores the importance of lighting while summarizing what a health school environment encompasses. However the findings are contrary to Nderitu (2009) who found security lighting to be inadequate in district days secondary schools due to inadequate funds however lighting was adequate in provincial boarding schools which were well endowed with financial resources.

In addition 36.7% of the respondents disagreed that all door ways in the school open outwards and are not bolted from outside, 20.4% strongly disagreed while 32.7% agreed and 10.2% strongly agreed. This implied that this safety guideline had been partially implemented in most schools and therefore creating a risky situation to the occupants of such facilities incase of an emergence. This somehow
concur to Omolo et al (2010) who revealed that 50% of secondary schools in Kisumu East and West Districts had successfully implemented the policy requirement windows and doors to open outwards and be without grills. Emergency exits are essential as they provide alternative exits during emergency. At night, the school needs to lock them down to deter acts of vandalism, theft, concealment and arson.

Similarly 32.7% of the respondents disagreed windows in the school are without grills and wire mesh, 26.5% strongly disagreed while 32.7% agreed and 6.1% strongly agreed. This implied that these safety guidelines had been partially implemented in most schools. It is the opinion of the researcher that schools which have not implemented this guideline must be advised to comply within a given framework of time. This is in agreement with Ngige (2010), who reported that Fr. Wambugu Dormitory at Endarasha Boys Secondary School where two boys met their untimely death had its windows fitted with grills and wire mesh which made it difficult for the students to have ample escape routes.

In addition 44.9% of the respondents strongly disagreed that the schools had constituted a strong and effective school safety sub-committee, 8.4% strongly disagreed while 32.7% agreed and 4.1% strongly agreed. This was interpreted to mean that most schools are vulnerable to disasters because they had not constituted a strong school safety committee to identify the safety needs of the school,
mobilize resources required to ensure a safe, secure and caring environment, monitor and evaluate various aspects of school safety and constantly review issues of learner and staff safety with a view of enhancing school safety. This confirms the findings by Nderitu (2009) that most schools had not established schools safety committees.

4.2.4 Frequency of Safety Practices

The study sought to show how often the following guidelines were done/undertaken in the school. Table 4.2 shows the results of the findings.

<table>
<thead>
<tr>
<th>Safety practices</th>
<th>Very frequently</th>
<th>Frequently</th>
<th>Rarely</th>
<th>Very rarely</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school is inspected by the Ministry of Education Officials</td>
<td>F 6.1</td>
<td>F 59.2</td>
<td>F 22.4</td>
<td>F 12.2</td>
</tr>
<tr>
<td>The school infrastructure is repaired, maintained and serviced</td>
<td>F 10.2</td>
<td>F 34.7</td>
<td>F 40.8</td>
<td>F 14.3</td>
</tr>
<tr>
<td>The school safety sub committee briefs the principal of the school safety status.</td>
<td>F 8.2</td>
<td>F 28.6</td>
<td>F 36.7</td>
<td>F 26.5</td>
</tr>
<tr>
<td>Student report on any spotted risk situations in the school</td>
<td>F 16.3</td>
<td>F 32.7</td>
<td>F 30.6</td>
<td>F 20.4</td>
</tr>
</tbody>
</table>

Source: Author, 2012
The study found out that 59.2% of the respondents indicated that frequently were schools inspected by the Ministry of Education officials, 6.1% reported very frequently while 22.4% rarely and 12.2% said very rarely. This is in agreement with opening remarks of Health and Safety Standards Circular (appendix I), which gives authority to MOE educational officials especially the Directorate of Quality Assurance and Standards to monitor the safety situation in schools. The finding collaborates with Omolo et al (2010) that school safety policies require that premises and student be inspected at least once a year. The findings provided evidence that a significant number of schools are inspected each year but a few go uninspected. The failure to inspect schools may impact negatively on safety and security matters in such schools.

Furthermore 40.8% of the respondents revealed that the school infrastructure is repaired and maintained rarely, 14.3% very rarely while 34.7% reported frequently and 10.2% very frequently. This was interpreted to mean that most educational facilities were dilapidated because most schools were established many years ago. Interpretively this may be attributed to inadequate funds. Consequently educational facilities need to be repaired, maintained and serviced from time to time in order to enhance their safety. The findings is in agreement with Omolo et al (2010) who found that 60% of school in Kisumu East and West districts had painted or white washed their buildings within the stipulated time. School building should be painted or white washed regularly. Painting has both aesthetic
as well as public health values. Schools that have tarnished, peeling, and fading paint look dilapidated and unhygienic, giving a negative impression about the management and mission of the school.

Also 36.7% of the respondents revealed that the school safety sub committee briefs the principal on the school safety status rarely, 26.5% very rarely while 28.6% indicated frequently and 8.2% very frequently. This data meant that this guideline had not been implemented in most schools hence creating a window for disasters to occur even if they could have been prevented. This is in line with Bibbings (2003) who argue that we fail to prevent accidents not because of incomplete control of the circumstances which give rise to them, but because of our partial knowledge of what will happen in future.

Again 30.6% of the respondents revealed that rarely did students report on any spotted risky situation in the school, 20.4% indicated very rarely while 32.7% reported frequently and 16.3% very frequently. This implied that students had not been sensitized enough on safety issues and establishment of good communication channels between their administration and students was inadequate. It is the researchers view that the learners should be sensitized to report to the administration immediately they notice any impending danger in order to enhance school safety.
4.3 Causes of Disasters

This section of the study sought to show causes of disasters based on the objective of causes of disasters in public secondary schools in Marani District, Kisii County, Kenya. The researcher mainly focused on occurrence of disasters, type of disasters, causes of disasters, and consequences of disasters in public secondary schools in Marani District, Kenya.

4.3.1 Occurrence of a disaster

Figure 4.7 shows responses on whether schools had experienced a disaster. Majority of the respondents 55% indicated that their schools had never experienced a disaster while 43% pointed out that they had experienced a disaster in their school. This implied that some schools in Marani District were prone to disasters therefore educational stakeholders should undertake safety measures to either minimize or eliminate risky conditions and threats that may cause accidents, bodily and emotional or psychological distress.
4.3.2 Type of Disaster

The researcher further sought to find out what type of disaster the learning institutions had experienced.

Table 4.3 Type of Disaster

<table>
<thead>
<tr>
<th>Type of Disaster</th>
<th>Yes</th>
<th>No</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Strike</td>
<td>14</td>
<td>28.6</td>
<td>32</td>
</tr>
<tr>
<td>Fire</td>
<td>8</td>
<td>16.3</td>
<td>38</td>
</tr>
<tr>
<td>Robbery</td>
<td>2</td>
<td>4.1</td>
<td>44</td>
</tr>
<tr>
<td>Road Accident</td>
<td>-</td>
<td>-</td>
<td>46</td>
</tr>
<tr>
<td>Rape</td>
<td>2</td>
<td>4.1</td>
<td>44</td>
</tr>
<tr>
<td>Arson</td>
<td>3</td>
<td>6.1</td>
<td>46</td>
</tr>
<tr>
<td>Electrical hazards</td>
<td>1</td>
<td>2.0</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Author, 2012

According to table 4.3, 65.3% of the respondents revealed that schools had never experienced strikes while 14 28.6% had experienced. This was interpreted to mean
that strikes were a type of disasters in schools in Marani District. This low percentage could be attributed to few schools in the district which are boarding. Studies by Matsoga (2003), Nderitu (2009), and Kirui et al (2011) are in agreement with this finding that strikes are the main type of disaster in public secondary schools.

Furthermore 77.6% of the respondents indicated that their schools had not experienced fire while 16.3% had experienced. This data was inferred to mean fire was a type of disaster in some schools. Interpretively this could be as a result of inadequate fire fighting equipment in most schools. This in line with studies by Omolo et al (2010), Kirui et al (2011) and Nderitu (2009) that fire is a type of disaster in public secondary schools. This raises serious doubts about fire preparedness in public secondary schools because such a disaster can lead to unnecessary injuries and loss of life.

Also 89.8% of the respondents said their schools had never experienced robbery while 4.1% had experienced. This implied that although robbery was a type of disaster it was minor. This could be as a result of many schools in the district being day, 89.3% table 3.1. This is in agreement with DEO Marani view that Itibo boys and Gamba were attacked in the Month of May, 2010 by thugs who wanted to steal from those schools. This further corroborated with observations by Thernstom (1999) that internationally in the USA robbery is a form of indiscipline.
Notably 93.9% of the respondents revealed they had never experienced road accidents while 6.1% said they had experienced. This implied that road accident is a minor type of disasters in most schools. This could be a consequence of most schools being day. As noted in the literature review cases of road accidents have been reported at Kirwara Secondary School in 1994, Orotum Secondary in 1995 among others (East African Standard 1998:6).

In addition 89.8% of the respondents said their schools had never experienced rape cases while 4.1% had experienced. This meant that rape was a very minor type of disaster in Marani District. This is further substantiated by Ruto (2009) who argues that learning institutions in Kenya have gained notoriety as venues of sexual assault. Shaw (2002) agreed in a paper in international experiences and actions in promoting school safety that there are regular reports of serious violence, gang activity, rape and sexual assault on girls in school.

On arson 93.9% of the respondents indicated that their schools had never experienced arson while 6.1% had experienced. This implied that arson is a minor type of disaster in schools in Marani District. This could be attributed to most schools being day and district with meager resources.

Majority of the respondents 91.8% confirmed their school had never experienced electrical hazards in their institution while 2.0% had experienced. This may be
attributed to a majority of school being day and for a long time having not been supplied with electricity until almost two years ago.

4.3.3 Possible Causes of Disasters

The study sought to find out the possible causes of disaster based on the objective of main causes of disaster in public secondary schools in Marani District, Kisii County, Kenya. Table 4.3 shows the result of the findings.

<table>
<thead>
<tr>
<th>Causes of Disasters</th>
<th>Yes</th>
<th>No</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Drug abuse among students</td>
<td>36</td>
<td>73.5</td>
<td>13</td>
</tr>
<tr>
<td>High handedness by the administration</td>
<td>30</td>
<td>61.2</td>
<td>18</td>
</tr>
<tr>
<td>Lack of disaster management skills</td>
<td>27</td>
<td>55.1</td>
<td>22</td>
</tr>
<tr>
<td>Poorly constructed infrastructure</td>
<td>23</td>
<td>46.9</td>
<td>26</td>
</tr>
<tr>
<td>Mass media influence</td>
<td>23</td>
<td>46.9</td>
<td>25</td>
</tr>
<tr>
<td>Poor electrification</td>
<td>19</td>
<td>38.8</td>
<td>29</td>
</tr>
<tr>
<td>Arson attacks</td>
<td>13</td>
<td>26.5</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: Author, 2012

The study established that 73.5% of the respondents indicated that drug abuse among students was a cause of disasters in schools while 26.5% said it was not. This implied that the safety standard on drug abuse had not been complied with. This is in line with the Report of the Task Force on Student Discipline and Unrest in Secondary Schools (2001) which identified drug abuse as a major cause of disasters in secondary schools. The same views are shared by Njagi, (2010) who
argues that drug abuse might have contributed to the burning of Endarasha Boys Secondary School since the school is surrounded by a big slum. Similarly studies by Gikonyo (2005) found out that drug abuse among the youth especially in secondary schools has endangered their life and this has caused a lot of concern as the vice indeed has been identified as a major cause of problems experienced in secondary schools in Kenya. Siringi (2003) revealed that students under the influence of drugs could even beat up their teachers, rape them or kill their colleagues. Further the United Nations International Drug Control Programme (World Drug Report, 2000) ranked Kenya among the four African Nations notorious for either consumption or manufacture of narcotics in the World. Pudo (1998) found out that the influence of drugs use by students has hampered education management in Kenyan secondary schools. Amayo (1993) also found out that trafficking of hard drugs into developing countries had not spared Kenya and that drug consumption and dependence among secondary and college students had led to unrest, destruction of life and property.

Also 61.2% of the respondents pointed out that the high handedness by the administration was a cause of disasters in schools while 36.7% said it was not. This concurs with Muriithi (2010) who concluded that Head teachers who manage by punishments have more discipline problems thus recommended it should be used as a last resort. The same views are expressed in the Report of the Task Force on Student Discipline and Unrest in Secondary Schools (Republic of Kenya,
Otieno et al (2010) also concurs with them. It therefore follows that interpersonal relationship between various stakeholders in and outside the school need to be cordial, cooperative and respectful.

Another 55.1% of the respondents indicated that lack of disaster management skills was a possible cause of disasters in schools while 44.9% said it was not. This implied that lack of disaster management skills was a cause of disasters in most schools. This is in agreement with Okumbe (2001) who points out that an effective safety programme should seek to provide people with the needed information on what to do and how to do it to enhance skills in disaster management training. The training programme should therefore involve managers as well as members of the school community so that disasters in schools should be prevented with concerted effort from all the parties to avert loss of life and property.

Similarly 53.1% of the respondents revealed that poorly constructed infrastructure was a cause of disasters in schools while 46.9% said it was not a cause. The high percentage of poorly constructed infrastructure may be attributed to most schools in Marani District being classified as districts. This concurs with Lulua (2008) who in a research paper addressing school safety in Uganda states that development partners like the national government, district government, communities, parents
and private sector partners had tried to respond to the infrastructural aspects of education quality as a panacea for preventing disasters.

In addition 46.9% of the respondent revealed that mass media was a possible cause of disaster while 51.0% said it was not. The finding, concur with the Report on Task Force on Student Discipline and Unrest in Secondary Schools (Republic of Kenya, 2001) which reported that the culture of violence and copy cat strikers and students who incite colleagues has become so engrained in students and appears like the only thing that bears the desired result. The report further says excessive violence seen in our television screens inculcate a culture of violence in our students since they have been exposed to all forms of violence in the print and electronic media owing to the steady rise of the uncensored videos, films and novels.

4.3.4 Other Disasters

On the other hand respondents revealed that strong winds that blew off the roofs of classes posed a threat. This could be as a result of schools in Marani district being situated in the Kisii highlands which experiences strong winds during the rainy season. This is in agreement with Roeder (2003) who argues that in the USA lightening is the most under recognized weather hazard. Lightening is the second cause of storm deaths in the USA, killing more people than tornadoes and hurricanes. Many school activities can put students at risk from lightening.
Therefore schools need an effective integrated safety plan. The Lightening Safety Group (LSG) formulated guidelines to avoid the large majority of lightening casualties. Organizations with recurring outdoor activities including schools need to have lightening safety plan. This plan must be in place, understood and agreed to by all participants before it is needed.

Also respondents reported theft and vandalism were disasters in public secondary schools in Marani District. This implied that in general some schools experienced various types of disasters hence the reason why implementation of safety standards and guidelines must be adhered to in all public secondary schools to mitigate against these types of disasters. This is in line with studies by Omolo et al (2010), Nderitu (2009), Kirui et al (2011) that schools experience theft and vandalism.

### 4.3.5 Immediate Consequences of Disasters

This section of the study shows immediate consequences of the disaster and table 4.5 shows the findings.

<table>
<thead>
<tr>
<th>Consequences of Disasters</th>
<th>Yes</th>
<th>%</th>
<th>No</th>
<th>%</th>
<th>No Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closure of the school</td>
<td>34</td>
<td>69.4</td>
<td>13</td>
<td>26.5</td>
<td>2</td>
<td>4.1</td>
</tr>
<tr>
<td>Human injuries</td>
<td>31</td>
<td>63.3</td>
<td>15</td>
<td>30.5</td>
<td>3</td>
<td>6.1</td>
</tr>
<tr>
<td>Destruction of property</td>
<td>26</td>
<td>53.1</td>
<td>21</td>
<td>42.9</td>
<td>2</td>
<td>4.1</td>
</tr>
<tr>
<td>Loss of lives</td>
<td>41</td>
<td>83.7</td>
<td>5</td>
<td>10.2</td>
<td>3</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Source: Author, 2012
According to the findings, 69.4% of the respondents revealed that closure of the schools was an immediate consequence of disasters in public secondary schools in Marani District while 26.5% said it was not. This is in agreement with findings by Kirui et al (2011) that learning and completion of syllabus lags behind because of closure of the school. Students are sent home whenever they go on strike.

Also 63.3% of the respondents indicated that human injuries were an immediate consequence of disasters while 30.6% said it was not. This is in agreement with Gitonga (2010), Kirui et al (2011), Nderitu (2009) and Omolo et al (2010) that human injuries are immediate effects of insecurity in public secondary schools.

Furthermore 53.1% of the respondents said that destruction of property was an immediate consequence of disaster while 42.9% said it was not. This concurs with Gitonga, (2010), and Amayo (1993) who notes that drug consumption and dependence among secondary and college students in Kenya had led to unrest, destruction of life and property.

It was revealed by 83.7% of the respondents that loss of lives was an immediate consequence of disasters while 10.2% said it was not. This is in agreement with Njagi (2010), who reported that death is an immediate consequence of disasters as witnessed at Endarasha Secondary School where two students were burnt to death.
4.4 Constraints in Implementation of Safety Standards and Guidelines

This section of the study shows the constraints experienced in implementation of safety standards and guidelines based on the objective of constraints in the implementation of safety standards and guidelines in Marani District, Kisii County, Kenya.

4.4.1 Safety Standard Manual

The study sought to show responses on whether the schools had a copy of Safety Standards Manual. Figure 4.6 shows the responses. Majority of the respondents 71% indicated that their schools had a copy of safety standards manual. However a few 20% said that their schools did not have a copy. This is contrary to the Ministry of Education policy which requires that all schools have a copy and implement the standard and guidelines to prevent occurrence of disasters. This implied that some schools were not aware of the manual and therefore may not be implementing the safety standards and guidelines. It is upon education officers to follow up government policies to ensure full compliance.

Figure 4.6 Safety Standard Manual. Source: Author, 2012
4.4.2 Level of Implementation

Figure 4.7 shows the level of implementation of the safety standards manual in schools.

The study established that 56% of the respondents indicated that the safety standards manual was partially implemented while 22% said that it was fully implemented. This implies that some schools had not adhered to the Ministry of Education Safety Standards and guidelines. It is important for school management especially head teachers who are implementers of government policies to embrace safety standards and guidelines fully. This partial implementation in some schools must be a major concern to Ministry of Education officials who are the policy makers.

Figure 4.7 Level of Implementation. Source: Author, 2012
4.4.3 Reasons for not having a Copy of Safety Standards Manual (2008)

The study found out that some schools did not have a copy on safety standards because it had not been availed to them by the Ministry of Education. On the other hand some of the respondents blamed it on the administration for its negligence. This confirms sentiments by Maulidi (2008) who found out that lack of regular communication to sensitize the various stakeholders on their roles hampers smooth implementation of safety policies in Kisumu City. Rugut (2003) further found out that QASOs were ineffective in their jobs and did not disseminate new policies of the MOE. This explains why some head teachers felt uncoordinated and without the guidance and support of QASOs, which is necessary for the implementation of safety policies.

4.4.4 Suggestions on implementation of Government Policy

The respondents further indicated that the government should put in place measures on how to implement the safety standards and guideline and provide a monitoring base. They advocated for sensitization of the matter on all stakeholders.

The study further cited that there were inadequate staff/personnel to implement and take the management through disaster and safety guidelines. In addition the personnel lacked necessary skills and equipment to handle the safety standards and guidelines.
4.4.5 Possible Constraints in Implementation of Safety Standards and Guidelines

This section of the study shows the possible constraints in implementation of safety standards and guidelines. Table 4.6 shows responses on the possible constraints in implementation.

Table 4.6 Possible Constraints in Implementation of Safety Standards and Guidelines

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Yes</th>
<th>No</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selective provision of fire equipment</td>
<td>35</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Inadequate fire equipment</td>
<td>29</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>Inadequate funds</td>
<td>33</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Ignorance</td>
<td>20</td>
<td>28</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Author, 2012

The study revealed that 71.4% of the respondents indicated that selective provision of fire equipment was a possible constraint in implementation of safety standards and guidelines in public secondary schools while 24.5% said it was not. This is in agreement with reports in the Standard Newspaper that selective provision of fire equipment is a constraint in the implementation of safety standard and guidelines as evidenced by disbursement of 810 million shillings to 717 provincial boarding secondary schools to purchase fire equipment.

Another 59.2% of the respondent revealed that inadequate fire equipment was a possible constraints in the implementation of Safety Standards and guidelines in
public secondary schools in Marani District, Kenya while 38.8% said it was not. This concurs with Otieno et al (2010) who quoted the Principal of Kisumu girls to have said the school had inadequate fire fighting equipment.

Again 67.3% of the respondents revealed that inadequate funds were possible constraints in the implementation of safety standards and guidelines while 30.6% said it was not. This concurs with Otieno et al (2010) who reported inadequate funds as a constraint in implementation of safety standards and guidelines. Kirui et al (2011) concurs that budgetary allocation by BOG to security issues is below 10% of the total school budget. This is due to competing interest, it is important to appreciate that school security is not something that ought to be last in the budget. Administrations must allocate resources for guards, fencing and surveillances of schools ground. Omolo et al (2010) reinforces this finding by arguing that implementation of safety policies involves modification of existing buildings, the purchase of expensive safety equipments and fittings and capacity development at all levels. Without adequate funds, all the safety policies may not be implemented at once.

Also 57.1% of the respondents pointed out that ignorance was not a major constraint in implementation of safety standards while 40.8% reported ignorance as a possible constraint in implementation of safety standards and guidelines. This findings confirms Kirui et al (2011) who found out that most school heads and
BOG members who are responsible for making decisions concerning security in
school may be approaching security ignorantly and thereby endangering life and
property. Head teachers, security guides and members of BOG require training on
enforcing security systems, security management, security preparedness, personnel
safety and sounds/alarms /signal systems.

4.4.6 Challenges Encountered in Implementation of Safety Standards and Guidelines
The study established that the respondents cited that equipments were not adequate
to facilitate the exercise. There was a set back on implementation of MOE safety
standards manual due to lack of funds and finances. Furthermore there was
inadequate knowledge/know how on how to operate the equipments. In addition
the respondents pointed out that there was low level of awareness in management
of disasters in schools.

4.5 Strategies put in place to Prevent Disasters
This section of the study shows the strategies which public secondary schools in
Marani District had put in place to prevent disasters based on the objective of
strategies put in place to prevent occurrence of disasters in public secondary
schools in Marani District, Kisii County, Kenya.
### 4.5.1 Strategies Put in Place

**Table 4.7 Strategies in Place**

<table>
<thead>
<tr>
<th>Strategies put in place</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>No responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>The school has been fitted with sufficient fire extinguishers</td>
<td>3</td>
<td>6.1</td>
<td>13</td>
<td>26.5</td>
<td>12</td>
</tr>
<tr>
<td>The school has sufficient First Aid Kit(s)</td>
<td>1</td>
<td>2.0</td>
<td>15</td>
<td>30.6</td>
<td>16</td>
</tr>
<tr>
<td>The school has a reliable alarm system</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>12.2</td>
<td>15</td>
</tr>
<tr>
<td>The school is fitted with sufficient lightening arresters</td>
<td>2</td>
<td>4.1</td>
<td>8</td>
<td>16.3</td>
<td>10</td>
</tr>
<tr>
<td>The school maintains a school emergency kit</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>16.3</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: Author, 2012

According to the findings, 40.8% of the respondents strongly disagreed that the school had been fitted with sufficient fire extinguishers while 26.5% agreed the school has been fitted with sufficient fire extinguishers and 6.1% strongly agree. This may be attributed to inadequate funds. This implied that safety situation in some schools is wanting. This is contrary to the Safety Standards Manual (Republic of Kenya, 2008) which requires that schools are safe from natural and human made disasters by observing the safety of their operating environment. Ideally each block should have a fire extinguisher. This is in agreement with Omolo et al (2010) that few schools in Kisumu East and West districts had fire extinguishers. This raises serious doubts about fire safety preparedness. Having
fire extinguishers and training staff on how to use them is one important precaution against fire related disasters.

Also 53.1% of the respondents strongly disagreed that the school has a reliable alarm system, 30.6% disagreed while 12.2% agreed. This data was inferred to mean that most schools had not installed a reliable alarm system.

Furthermore, 57.1% of the respondents strongly disagreed that the school had been fitted with sufficient lightening arresters, 20.4% disagreed while 16.3% agreed and 4.1% strongly agreed. This was interpreted to mean that the guideline had not been fully complied with in most schools. This is contrary to Roeder (2003) who suggests that organizations with recurring activities including schools need to have lightening safety plan.

The findings revealed 42.9% of the respondents strongly disagreed that the school maintains a school emergency kit, 38.8% disagreed while 16.3% agreed. This implied that the guideline had not been fully adhered to in most schools. This is against the safety standards manual guideline that schools must ensure working and adequate First Aid Kit facilities are put in place to provide emergency care in schools. Further the same views were expressed in the literature review by Anderson and Craswell (1980) who suggest that every school building should have at least one fully stocked, conveniently located First Aid Cabinet. Red Cross
Society reports that first Aid Kit are essential in routine daily life as there are chances for accidents to occur when people least expect them. It is advisable to have First Aid Kit in schools so that students can be equipped to face any circumstances that require urgent care. A First Aid Kit can make a difference between life and death especially before proper medical attention can be obtained.

### 4.5.2 Location of Fire Extinguishers

The respondents revealed that fire extinguishers were located inside the buildings, the administration block, dormitories and the kitchen. This is contrary to safety standards and guidelines as indicated in the Safety Standards Manual (Republic of Kenya, 2008) that fire extinguishers should be functioning and based at each exit with fire alarms fitted at easily accessible points. This could be attributed to fear of theft of gadgets however school management must locate fire extinguishers in strategic places especially at the exit of every block.
4.5.3 Frequency of the Implementation of Safety guidelines

Table 4.8 shows the frequency of the implementation of safety guidelines in the schools.

<table>
<thead>
<tr>
<th>Safety Guidelines</th>
<th>Very Frequently</th>
<th>Frequent</th>
<th>Rare</th>
<th>Very Rarely</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often are schools facilities and equipment inspected</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>How often do you conduct disaster and crisis management training for staff and</td>
<td>2</td>
<td>4.1</td>
<td>21</td>
<td>42.9</td>
<td>17</td>
</tr>
<tr>
<td>community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often do you conduct fire drills</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>4.1</td>
<td>16</td>
</tr>
<tr>
<td>How often does the school invite the local fire brigade department to give talks</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>6.1</td>
<td>10</td>
</tr>
<tr>
<td>and demonstration to learners about fire prevention in a school context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author, 2012

The study revealed that 14.3% of the respondents indicated very rarely are school facilities and equipments inspected, 34.7% rarely while 42.9% said frequently and 4.1% very frequently. This is contrary to Omolo et al (2010) who found out that in Kisumu municipality majority of schools were inspected at least once a year. This
may be attributed to Marani District being recently created hence having a skeleton staff of QASOs. The failure to inspect schools may impact negatively on safety and security matters in such schools. However the finding are in agreement with Nderitu (2009) who found out that rarely did MOE officials inspect schools to monitor and supervise implementation of safety policy because QASOs are overwhelmed by the large and increasing number of schools and colleges making it an immense task to inspect school frequently.

Also the study found out that 42.9% of the respondents indicated very rarely to schools conducting disaster and crisis management training for staff and community, 40.8% rarely while 10.2% said frequently and 2% very frequently. It can therefore be inferred from the data that this guideline has not been adhered to fully in most schools. The findings are in agreement with Kirui et al (2011) who from security guard interviews found out that only 40% of the respondents reported having trained as security guard. This means that some schools hire security personnel with no formal training or experience and this may affect professionalism with which they approach their work. This concurs with Nderitu (2009) that lack of trained personnel in disaster management was a great challenge in schools.

Furthermore 59.2% of the respondents indicated very rarely schools conduct fire drills, 32.7% rarely while 4.9% pointed out frequently. This implied in the
The majority of schools, learners, and staff do not undertake periodic fire drills at least twice a term as recommended in the Safety Standards Manual (Republic of Kenya, 2008). The finding concurs with Omolo et al. (2010) who found out that from the year 2004 to 2006, there was a downward trend in conducting fire drills. This reflects a sudden change in perception of head teachers towards fire safety and preparedness as compared to the previous years. The significance of fire drills in a school setup should never be downplayed. According to Comolotti (1999), fire drills prepare students for what they need to know in case of an outbreak. They also allow students and teachers to plan their escape in advance and to address learners' safety issues.

Again, 67.3% of the respondents indicated very rarely do schools invite local fire brigade departments to give talks and demonstrations to learners about fire prevention in a school context, 20.4% rarely while only 6.1% indicated frequently. This implied this safety guideline had not been complied with by most schools. It is important for learners and staff to be sensitized on what to be done in case of a fire and other disasters like thunderstorm, lightening, floods, landslide, earthquakes and poisonous chemical emissions. This is contrary to reports by Otieno (2010) that Kenya National Fire Brigade Association introduces fire education in the primary and secondary curriculum.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary, conclusions and recommendations of the major findings of the study based on the research objectives and research questions, which sought to establish why safety standards and guidelines have not been implemented fully in all public secondary schools meant to enhance disaster preparedness, discipline and academic performance in public secondary schools in Marani District, Kisii County, Kenya.

Data analysis was as follows based on the research objective:-

i) To establish the safety situation in public secondary schools in Marani District, Kenya.

ii) To outline the main causes of disasters in public secondary schools in Marani District, Kenya.

iii) To examine the major constraints in the implementation of government policy related to Safety Standard and Guidelines in Secondary Schools in Marani District, Kenya.

iv) To explore the major strategies put in place to prevent occurrence of disasters in public secondary schools in Marani District, Kenya.
Descriptive survey design was used in conducting this study. The sample selected for the study included 49 teachers of whom 12 were head teachers and 37 were teachers. Of the 49 respondents 38 were males and 11 were females. The instrument used in collecting data was head teacher/teacher questionnaire. In analyzing data frequencies and percentages were used and findings were presented in charts, tables and graphs.

5.2 Summary of Findings

The following were the summary of the research findings based on study objectives and research questions upon which the conclusion and recommendations of the study were made.

5.2.1 Safety Situation

The first objective of the study was to establish the safety situation in the public secondary schools in Marani District, Kisii County, Kenya. The study established that the Ministry of Education had issued circulars on: Health and Safety Standards in educational institutions Ban on Corporal Punishment in Learning Institutions and Guidelines on Transport of school children which the majority respondents agreed schools had received. However some sampled schools did not have copies of such circulars which meant that such schools were not conversant with the safety guidelines as specified in those circulars hence a threat to safety in such schools in Marani District.
According to findings safety situation guidelines had been partially implemented in most of the sampled schools. Although the majority of the respondents agreed that the physical infrastructure was constructed and occupied in consultation with the approval of Ministry of Public Health, well fenced compound and that there was adequate lighting it was however evidently reported by the majority of the respondents as indicated in table 4.1 that most of the safety situation guidelines had not been adhered to because majority of respondents disagreed that all visitors are screened before entry into the compound, all doorways in the school open outwards and are not bolted from outside, windows are without grills and wire mesh and the school had constituted a strong and effective school safety sub-committee.

On the frequency of the safety programme guidelines undertaken by those responsible, the study revealed that although schools were frequently inspected by Ministry of Education officials some were not as a result of Quality Assurance and Standards Officers being overwhelmed by the large and increasing number of schools hence making it an immense task to inspect schools on regular basis to monitor the safety situation. Further the study revealed by a majority of respondents that rarely were the sampled schools infrastructure required, maintained and serviced. In addition rarely did students report on any spotted risk situations in the school. These safety programmes were reported to be frequent in very few schools which were endowed with human and financial resources
especially the provincial schools hence need for the government to provide resources equitably.

In a nutshell the safety situation in public secondary schools in Marani District was found to be wanting because some schools did not have copies of Ministry of Education circulars and therefore were not conversant with the safety standards and guidelines as specified which assure the safety and security of children not only within the school precincts but also on their way to or from school and once they get back home.

5.2.2 Causes of the Disasters.

The second research objective of the study was to outline the main causes of disasters in public secondary schools in Marani District, Kenya. From the results presented in the previous chapter very few schools have experienced strikes, fire, arson cases, robbery, rape, and electrical hazards, (Table 4.3). This may be attributed to most schools being day schools, (Table 3.1). However some schools experienced strong winds that blow off the roofs of classes, and that theft and vandalism were common in learning institutions.

According to the findings, it was evident that possible causes of disaster by respondents included drug abuse among students, high handedness by the administration and lack of disaster management skills, however poorly constructed
infrastructure, mass media influence, poor electrification and arson attacks were reported to be possible causes by less than half of the respondents which interpretively meant it was not a major cause of disasters in public secondary schools in Marani District, Kenya. This implied that to counter such disasters schools must embrace fully safety standards and guidelines as stipulated in the safety Standards Manual (Republic of Kenya, 2008).

5.2.3 Constraints in Implementation of Safety Standards and Guidelines

The third research objective was to examine the major constraints in the implementation of the government policy related to safety standards and guidelines in public secondary schools in Marani District, Kenya. According to results in table 4.6 of the previous chapter, majority of respondents perceived selective provision of fire equipment, inadequate fire equipment, and inadequate funds as possible constraints. Ignorance was reported to be a constraint because inadequate knowledge on how to operate the equipment and low level of awareness in management of disaster were cited as challenges encountered in implementation of safety standards and guidelines. This is in accordance with report by Otieno et al (2010) who argues that most schools are poor and cannot afford fire extinguishers. Similarly the District Education Officer (DEO), Homabay, says that the situation is dire and needs government attention because schools find it expensive to purchase gear to fight fire and those with fire extinguishers cannot maintain them. This is why schools rely on prefects and
untrained watchmen leading to security lapses. It is important that the government to considers ways and means of financing safety programmes in schools. It is the researchers opinion that MOE policy makers need to come up with strategies to overcome the constraints and challenges in order for schools to comply with safety standards and guidelines.

5.2.4 Strategies Put in Place to Prevent Disasters

The fourth objective was to explore the major strategies put in place to prevent the occurrence of disasters in public secondary schools in Marani District, Kenya. According to the findings as discussed in table 4.7 of chapter four, respondents majorly disagreed that: schools had been fitted with sufficient fire extinguishers, First Aids Kits, had a reliable alarm system, sufficient lightening arresters and maintains a school emergency kits. This ideally means that most schools are sitting on a time bomb should an emergency occur because they have not fully implemented safety standards and guidelines strategies due to inadequate funds. Furthermore it is clear that some schools may have failed to implement the safety standards and guidelines due to shortage of Quality Assurance and Standards Officers to monitor and evaluate implementation of safety standards and guidelines in educational institutions thus there is need of the school head teachers to be trained on quality assurance to ensure a self checking mechanism in school safety and reinforce Safety Standards compliance done by Quality Assurance and Standard Officers. Equally important schools managers must be
creative and innovative to improvise some gadgets instead of relying on expensive ones which many schools cannot afford.

It was also notably established that fire extinguishers were located inside the buildings, administration block, dormitories and kitchen contrary to the safety standards and guideline due to fear of theft of the gadgets. Fire extinguisher must be located in strategic places especially at the exit of every block if they have to serve the purpose they are meant for.

Finally as discussed in table 4.8, it was revealed by majority of respondents that rarely: are school facilities and equipment inspected, school conduct disaster and crisis management training for staff, schools conduct fire drills and do schools invite fire brigade department to give talks and demonstrations to learners about fire prevention in a school context. It is the responsibility of the Ministry of Education Official who are policy makers to ensure a good follow up to ensure total compliance in the implementation of safety standards and guidelines, to induct all stakeholders on disaster management training, enhance school inspection and school administrators especially head teachers to organize and hold regular fire drills at least twice a month to create awareness among learners and staff.
5.3 Conclusion

The study set out to establish the implementation of safety standards and guidelines in public secondary schools in Marani District, Kisii County, Kenya. The findings showed that a majority of schools had partially implemented most safety standards and guidelines in these schools. No single schools were found to have implemented all the safety standards and guidelines. The study concluded that safety was inadequate because in most school majority of the respondents disagreed that: all visitors are screened before entry into the compound, all doorways in the school open outwards and are not bolted from outside, windows in the schools are without grills and the school has constructed a strong and effective safety committee. In addition the school rarely repaired the infrastructure, maintained and serviced them; the school safety sub-committee rarely briefed the principal of the school on safety status and rarely students reported on any spotted risk situation in the school. Finally some schools experienced strong winds that blew off the roofs of classes; there is also theft and vandalism in schools.

The study further concludes that drug abuse among students was prevalent. This is in line with the Report on the Task Force on student Discipline and Unrest in Secondary Schools (Republic of Kenya, 2001). They reported varied types of drugs and narcotic are readily available in some localities where schools are situated, such drugs and substances are bhang, marijuana, tobacco, changaa, kuber and glue. The substances are sold to students without the knowledge of parents. In
addition high handedness by the administration, lack of disaster management skills and poorly constructed infrastructure were also identified as possible causes of disasters.

It was concluded that the unsatisfactory implementation of safety standards and guidelines was attributable to a variety of factors: selective provision of fire equipment, ignorance and inadequate funds. This is in agreement with studies by Nderitu (2009), Omolo et al (2010), Kirui et al (2011) and Otieno et al (2010) whom report that most schools are poor and cannot afford fire extinguishers. The District Education Officers (DEO) Homabay, says that the situation is dire and needs government attention because schools find it expensive to purchase gear to fight fires and even those with fire extinguishers cannot maintain them. This is why schools rely on prefects and untrained watchmen leading to lapses. It is important that the government considers ways and means of financing safety programmes in schools.

The findings of the study concluded that although some schools had been fitted with fire extinguishers, First Aid Kits and lightening arrestors were inadequate. Similarly the study established that rarely are: school facilities and equipment inspected, do schools conduct disasters and crisis management training for staff and community, conduct fire drills and schools invite fire brigade department to give talks and demonstration to learners about fire prevention in school context.
Schools in general need to implement in full the Safety Standard Manual for Schools in Kenya, guidelines recommended by the Ministry of Education.

5.4 Recommendations of the Study

In light of the findings and conclusions of this study it was recommended that the following measures to be undertaken to make implementation of Safety Standards and guidelines successful in schools:

1. The Ministry of Education should provide all schools in Marani District with funds to implement safety standards and guidelines and improve on the coordination and follow up of all stakeholders in the safety policy implementation process. In addition the MOE should integrate safety education in the curriculum and explore possibility of insuring school property to allow for compensation in case of a disaster.

2. The school management should constitute a standing committee on disaster mitigation and a school safety sub committee whose responsibility shall be overseeing school safety by carrying out regularly safety inspection, audit and prevention of accidents.

3. Head teachers should take advantage of technological advances and install security cameras that assist to detect learners indiscipline. Further they should ensure emergency drills are conducted regularly and learner watch committees are formed.
4. Parents should be involved in school security programs for adult visibility serves as a deterrent to crime and violence.

5. The fire brigade department should regularly inspect schools and buildings and recommend changes to assure safety, plan with schools for fire drills, demonstrate care and proper use of fire extinguishers and help promote protection activities.

5.5 Suggestions for Further Research

i) This study was conducted in only one district therefore the findings cannot be generalized to other districts in the county. Further study should be extended to other districts to enhance generalizability of the findings to validate them.

ii) Further research should be conducted on the implementation of safety standards and guidelines in private schools which were not included in this study.

iii) A similar study should be conducted in public primary schools which were not studied to determine implementation of Safety Standards and Guidelines at primary school level.

iv) Research should be conducted on the impact of implementation of Safety Standards and Guidelines on the outcomes and quality of learning.

v) Research should be conducted to examine the roles of students in implementation of safety standards and guidelines.
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Shilling 850,000 thousand property razed in student riots (2011, 30\textsuperscript{th} July), P.18.


Students sent home after arson attack on their school, (2006, 8\textsuperscript{th} June), Daily Nation.

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APPENDIX I

HEALTH AND SAFETY STANDARDS CIRCULAR

/COPY/

JOGOO HOUSE ‘B’
HARAMBEE AVENUE,
P.O. 3004,
NAIROBI, KENYA.

REF. No. G9/1/169

10TH April, 2001

All Chairmen - Provincial Education Board
All Chairmen- District Education Board
All Provincial Directors of Education with
Sufficient Copies to – All D.E.O.s/D.Ss and M.E.Os
Board of Governors
Principal: Teachers Colleges
Secondary Schools, Polytechnics and Technical Training Institute
All Heads of Boarding Primary Schools

RE: HEALTH AND SAFETY STANDARDS IN EDUCATIONAL INSTITUTIONS

As you are all aware, many educational institutions in this country, for the greater part of the year, home to the majority of students. In the last few years, there have been a number of incidents of fire and other health risk situations in our educational institutions. In this regard, the Ministry has found it necessary to review all Health guidelines that affect the welfare of students.

This circular is intended to direct all managers, head teachers and other stakeholders, under the general direction of P.E.O.s, and P.D.Es, to review their institutions and implement the following guidelines and specifications.

1. PHYSICAL FACILITIES

At Kenya’s Independence in 1963, communities and parents were called upon and encouraged to put up educational facilities (through Harambee) to cater for the ever increasing number of children. Later during the 1970’s, the provision of most educational facilities was left to the communities (parents, school boards and committees) who have continued to provide whatever the children needed. The Government has only provided teachers and minimal teaching/learning materials as emphasis shifted to cost sharing. Most of the
resultant educational institutions have facilities that do not meet the health and safety standards as specified by the law through:

i) Education Act Cap. 211

ii) Public Health Act Cap. 242

iii) Ministry of Public Works building regulations.

It is a requirement that the schools set site plans from the Ministry of Public Works and such plans are adhered to. Any facility which has not been put in conformity with the existing regulations should be modified and the concerned school management to adhere to the laid down admission regulation.

a) CLASSROOMS

(i) Size: 7.5m by 5.85m or 7.5m by 6.0m

Such class sizes should accommodate a maximum of 30 pupils in one seater desk and 40 pupils in two seater desks.

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

(iii) Stairways: for storey buildings, stairways should be wide enough and be located at both opposite ends of the building and should be clear of any obstructions all the time.
(iv) Corridors: should be well ventilated and lit. The width of stairways and corridors should not be less than 1.2 metres. Strong enough handrails should be provided in the stairway rump and should be firmly fixed.

(v) Windows: classroom windows must be openable without grills and reasonable in size for the purposes of ventilation, lighting and evacuation.

b) LABORATORIES

Secondary schools and colleges should adhere to the Ministry of Education guidelines and Design, construction, equipment and materials as stipulated in the **Guideline for Secondary Schools Science Laboratories** published by the Ministry of Education, Science and Technology and popularly referred to as the Blue Book.

For class sizes of 40/45 students, a safe working area should allow for 2 sq meter per student. The facility **must** have fire extinguishers strategically placed next to the main exits. Laboratories should also have a serviceable First Aid Box, the contents of cuts.

All chemicals, glassware and general equipment must be stored in shelves in apathetical order and carefully labeled. System regular checks should be implemented.
3. ENVIRONMENTAL FACTORS

- The long sides of buildings should run from East to West so that sun does not shine through the windows either in the morning or evening.

- Laboratories and kitchen should be upwind from the main buildings.

- Likewise buildings should be upwind from the playing grounds so that dust is not blown into the rooms.

- The school environmental / premises should be kept tidy at all times.

a) SANITATION

Pit toilets should be build at least 10 metres away from tuition and boarding facilities in the leeward side to avoid smell.

Where an ablution is attached to the dormitory, high degree of cleanliness must be maintained.

The following specifications have to be adhered to in putting up sanitary facilities.
b) DAY SCHOOL SANITATION

<table>
<thead>
<tr>
<th>SEX</th>
<th>NUMBER OF PUPILS</th>
<th>CLOSE I</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIRLS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) First 30 girls</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>b) The next 270 girls</td>
<td></td>
<td>1 extra per every 30 girls</td>
</tr>
<tr>
<td>c) Every additional 50 girls</td>
<td></td>
<td>1 closet per 50 girls</td>
</tr>
<tr>
<td>BOYS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) First 30 Boys</td>
<td></td>
<td>4 fittings</td>
</tr>
<tr>
<td>b) For next 270 Boys</td>
<td></td>
<td>1 fitting every 30 boys</td>
</tr>
<tr>
<td>c) For every 50 additional boys</td>
<td></td>
<td>1 fitting per 50 boys</td>
</tr>
</tbody>
</table>

c) BOARDING SANITATION

<table>
<thead>
<tr>
<th>SEX</th>
<th>NUMBER OF</th>
<th>CLOSETS</th>
<th>URINALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
<td>50</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Boys</td>
<td>50</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Pit latrines – Not less than 6m (20ft deep), regularly well disinfected, 15m (50ft) away from a borehole or well or water supply point.

d) Sanitary for Staff- closets – one per 12 persons. Separate provision for ladies and gentlemen is necessary.
ABLUTIONS/WASHING BASIN:

<table>
<thead>
<tr>
<th>TYPE OF SCHOOL</th>
<th>PUPILS</th>
<th>BASIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>First 120 pupils</td>
<td>1 basin for every 30 pupils.</td>
</tr>
<tr>
<td></td>
<td>Every additional 30</td>
<td>1 basin</td>
</tr>
<tr>
<td>Boarding</td>
<td>Every 50 pupils</td>
<td>1 basin</td>
</tr>
<tr>
<td>Staff</td>
<td>Every 12 members</td>
<td>1 basin</td>
</tr>
</tbody>
</table>

N/B

(a) At least one third of the fittings for boys should be closets, and the rest urinals, if a urinal trough, then 0.6m (2ft) of the trough is equivalent to one fitting.

(b) All closets must be well ventilated.

(c) For mixed schools, girls’ sanitation must be separate and offer complete privacy.

5. FIRST AID AND SAFETY EDUCATION

First aid education for the Matrons and Nurses particularly in disaster and crisis management should be provided. There is need for training on how to handle emergencies including fires, lighting, swimming accident, floods and any other catastrophe, which may occur.

- The school community should undertake fire drills frequently, at least twice a term.
• Fire equipment should be clearly serviced.

6. OTHER MEASURES:

(i) School Matrons, Nurses and Head teachers must reside in the school compound, as per the Director of Education Circular Ref. No. G/1/VQLIIII/138 of 14/10/99.

(ii) All facilities should be in the best state of repair, serviceable and be tested/inspected regularly,

(iii) Guidelines on transportation of school children /students must be observed at all times as outlined in circular Ref. G9/1/163 of 2/7/93.

(iv) During suspected outbreaks of contagious diseases, the school administration should inform the Location Medical Officer of Health immediately.

(v) Head teachers should also consult medical officers, architects, fire experts and first aid trainers for any relevant advice and assistance.

(vi) Any complaints raised by the students in connection with their welfare must be acted upon promptly.

(vii) Any occurrence in the school however minor must be comprehensively entered in the Log Book and each information used to improve on the pupils’ welfare.

(viii) Issues and threats touching on the security of the students must be reported to the relevant organs of the Government.
Rules are good as the people who implement them. The successful implementation of these guidelines will depend on the Head-teachers and on how well the pupils/students are sensitized, and the establishment of good communication channels between the Administration, the students and the teachers. Our learning institution will fall or stand or its head.
Dear madam/sir,

RE: RESEARCH IN YOUR SCHOOL

I am a Master of Education student of Kenyatta University currently carrying out a research on the implementation of safety standards and guidelines in secondary schools in Marani District, Kisii County, Kenya.

Your school has been selected to take part in the study. I would like to request for your permission and support to fill the study questionnaire.

The information given will be treated with utmost confidentiality and will be strictly for the purpose of this study.

Thank you.

Yours Faithfully,

Nyakundi Z. O
APPENDIX III

HEADTEACHER’S / TEACHER’S QUESTIONNAIRE

The author is a student at Kenyatta University undertaking Master of Education (MED). The purpose of this questionnaire will be to gather data on the implementation of Safety Standards and Guidelines in Public Secondary Schools in Marani District, Kisii County, Kenya. Do not write your name or the name of your school. Please note that the information you will give in the questionnaire will be treated with utmost confidentiality and will be used strictly for the purpose of this study.

Thanks for accepting to participate in filling the questionnaire.

PART A: BACKGROUND INFORMATION

1. What is your highest Academic Qualification?

   (i) Diploma in Education [ ]

   (ii) BED [ ]

   (iii) BA/ BSC/PGDE [ ]

   (iv) MED [ ]

   (v) Others (Specify) ………………………………………………………………………………….

   …………………………………………………………………………………………………………………
2. For how long have you been head teacher/teacher?

i. 1-5 years [ ]

ii. 6-10 years [ ]

iii. 11-15 years [ ]

iv. 16-20 years [ ]

v. 20 years and above [ ]

PART B: SAFETY SITUATION IN SCHOOLS

3. Does the school own a Title Deed?

   (i) Yes [ ]
   (ii) No [ ]

4. Does your school have the following circulars and documents issued by the MOEST


      (i) Yes [ ]
      (ii) No [ ]
5. Please indicate how you strongly agree or disagree with the statement using the key printed:

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Strongly disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ S A ]</td>
<td>[ A   ]</td>
<td>[ S  D ]</td>
<td>[ D   ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety situation guidelines</th>
<th>SA</th>
<th>A</th>
<th>SD</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>i The school physical infrastructure are constructed and occupied in consultation with approval of Ministry of Public Health (Public Health Department)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii The school is well fenced to deter unauthorized entry into the compound with only one entry point to the compound manned by security guards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii All visitors are screened before entry into the compound</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv There is adequate lighting in the school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v All doorways in the school open outwards and are not bolted from outside.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii Windows in the school are without grills and wire mesh.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii The school has constituted a strong and effective security committees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Please indicate how often the following safety services are offered in your school using the Key provided:

<table>
<thead>
<tr>
<th>Safety services</th>
<th>VF</th>
<th>F</th>
<th>R</th>
<th>VR</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school is inspected by the Ministry of Education officials.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The school infrastructure is repaired, maintained and serviced.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The school safety committee briefs the head teacher of the school about safety situation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student report on any spotted risk situations in the school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PART C: CAUSES OF DISASTERS

7. a) In the history of your school has it ever experienced a disaster.

   (i) Yes [ ]
   (ii) No [ ]

b) If the answer to question 14 (a) is yes, what was the type of the disaster.

   (i) Strike [ ]
   (ii) Fire [ ]
(iii) Robbery  [   ]  
(iv) Road accident  [   ]  
(v) Rape  [   ]  
(vi) Arson  [   ]  
(vii) Electrical hazards  [   ]  
(viii) Others (specify)…………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………

8. Below are possible causes of disasters in schools. Put a tick (√) where appropriate

   (i) Drug abuse among students  [   ]  
   (ii) High handedness by the administration  [   ]  
   (iii) Lack of disaster management skills  [   ]  
   (iv) Poorly constructed infrastructure  [   ]  
   (v) Mass media influence.  [   ]  
   (vi) Poor electrification  [   ]  
   (vii) Arson attacks  [   ]  
   (viii) Others (specify)…… ……………………………………………..
………………………………………………………………………………
………………………………………………………………………………
d) What were the immediate consequences of the disaster?

(i) Closure of the school [ ]
(ii) Human injuries [ ]
(iii) Destruction of property [ ]
(iv) Loss of lives [ ]
(v) Others (specify)……………………………………………………………………
……………………………………………………………………
……………………………………………………………………

PART D: CONSTRAINTS IN IMPLEMENTATION OF SAFETY STANDARDS AND GUIDELINES

9. (a) Does the school have a copy of Safety Standards Manual (2008) for Schools in Kenya?

(i) Yes [ ]
(ii) No [ ]

(b) If the answer for the question 16 is yes, state in your own opinion how it has been implemented.

(i) Partially implemented [ ]
(ii) Fully implemented [ ]
10. (a) The following are possible constraints in the implementation of safety standards and guidelines put a tick (√) where appropriate.

(i) Selective provision of fire equipment [    ]
(ii) Inadequate fire equipment [    ]
(iii) Inadequate funds [    ]
(iv) Ignorance [    ]

(b) What challenges have you encountered in implementing MOE Safety Standards Manual (2008) for schools in Kenya?
**PART E: STRATEGIES PUT IN PLACE TO PREVENT DISASTERS**

11. (a) Please select the option that best describes your opinion about the following Statements by putting a tick (√) on the appropriate column using the key provided:

<table>
<thead>
<tr>
<th>Strongly Agree (SA)</th>
<th>Agree (A)</th>
<th>Disagree (D)</th>
<th>Strongly disagree (SD)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Strategies put in place</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) The school has been fitted with sufficient fire extinguishers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) The school has sufficient First Aid Kit(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) The school has a reliable alarm system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) The school is fitted with sufficient lightening arresters.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(v) The school maintains a school emergency kit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(b) If the school has fire extinguishers where are they located?

…………………………………………………………………………
…………………………………………………………………………
…………………………………………………………………………

12. Please indicated how often the following safety services are offered in your school using the key provided:

<table>
<thead>
<tr>
<th>Safety services</th>
<th>VF</th>
<th>F</th>
<th>R</th>
<th>VR</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) How often are school facilities and equipment inspected?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) How often do you conduct disaster and crisis management training for staff and community?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) How often do you conduct fire drills?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) How often does the school invite the local fire brigade department to give talks and demonstration to learners about fire prevention in a school context?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX IV

APPROVAL OF RESEARCH PERMIT

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

Internal Memo
P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 57530

FROM: Dean, Graduate School       DATE: 21st August, 2011

TO: Nyakundi Zablon Ogonyo       REF: E55/CE/11753/07

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that the Graduate School Board at its meeting of 8th August, 2011 approved your M.Ed Project Research Proposal.

You may now proceed with your Data Collection.

Thank you.

JOHN M. ODONGI
FOR: DEAN, GRADUATE SCHOOL


Supervisors:
1. Dr. Florence Itigi,

2. Dr. Kombo Kisilu Donald,
   C/o Educ. Foundations Dept.

JMO/fwk
APPENDIX V

RESEARCH AUTHORIZATION BY GRADUATE SCHOOL

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

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

Our Ref: E55/CE/11753/07

Date: 21st August 2011

The Permanent Secretary,
Ministry of Higher Education, Science & Technology,
P.O. Box 30040,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MR. NYAKUNDI ZABLON OGYOGO -
REG. NO. E55/CE/11753/07

I write to introduce Mr. Nyakundi Zablon Ogyogo who is a Postgraduate Student of this University. He is registered for an M.Ed degree programme in the Department of Educational Management, Policy & Curriculum Studies in the School of Education.

Mr. Nyakundi intends to conduct research for a thesis project entitled, “Implementation of Safety Standards and Guidelines in Public Secondary Schools in Marani District, Kenya.”

Any assistance given will be highly appreciated.

Yours faithfully,

[Signature]

JOHN M. ODONGI
FOR: DEAN, GRADUATE SCHOOL

JMO/fwk
APPENDIX VI

RESEARCH AUTHORIZATION BY NATIONAL COUNCIL FOR

SCIENCE AND TECHNOLOGY

REPUBLIC OF KENYA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telegram: "SCIENTECH", Nairobi
Telephone: 254-020-241349, 2213102
254-020-210571, 2213123
Fax: 254-020-2213123, 318245, 318249
When replying please quote

NCST/RRI/12/1/SS-011/1261/4

Zablon Ogonyo Nyakundi
Kenyatta University
P. O. Box 43844
NAIROBI

DATE: 19th September, 2011

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on
“Implementation of safety standards and guidelines in public secondary
schools in Marani District, Kenya” I am pleased to inform you that you
have been authorized to undertake research in Marani district for a
period ending 30th November 2011.

You are advised to report to the District Commissioner & the District
Education Officer, Marani District before embarking on the research
project.

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

P. N. NYAKUNDI
FOR: SECRETARY/CEO

Copy to:

The District Commissioner
Marani District

The District Education Officer
Marani District
APPENDIX VII

RESEARCH CLEARANCE PERMIT

PAGE 2

THIS IS TO CERTIFY THAT:
Prof./Dr./Mr./Mrs./Miss/Institution
Zablon O. Nyakundi
of (Address) Kenyatta University
P.O BOX 43844, Nairobi
has been permitted to conduct research in
Location
Marani District
Nyanza Province
on the topic: Implementation of safety standards
and guidelines in public secondary schools in
Marani District, Kenya
for a period ending 30th November, 2011

PAGE 3

Research Permit No. NCST/RR/12/1/SS011/1261
Date of issue 19th September 2011
Fee received

Applicant's Signature

Secretary

National Council for Science and Technology