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Principals' Effectiveness in the Implementation of Safety Guidelines on Physical Infrastructure in Public Secondary Schools in Makueni County, Kenya

Nzangi Evans Kioko

Masters Student, Department of Educational Management, Policy and Curriculum Studies,
School of Education, Kenyatta University, Kenya

Dr. Joseph G. Mungai

Lecturer, Department of Educational Management, Policy and Curriculum Studies, School of
Education, Kenyatta University, Kenya

Abstract:

This study was motivated by the unrelenting incidents of secondary schools' unrest and arson in Kenya. The aftermath has been wanton destruction of schools' physical infrastructure with public secondary schools being most affected. As such, this study aimed at assessing the principals' effectiveness in the adherence to the safety guidelines on physical infrastructure in public secondary schools in Mbooni East Sub County, Makueni County, Kenya. The objectives with respect to the area under study were: To establish the level of principals' and teachers' awareness on the existence of the Safety Standards Manual for Schools and to find out the extent to which the principals had implemented the safety standards on the physical infrastructure in public secondary schools; The study was based on the ERG theory; failure to attend to students and staff relatedness and growth needs in a school may impact itself negatively through renewed agitation for existence needs such as food, uniform and safety concerns leading to school unrests and destruction of school's physical infrastructure. Descriptive survey design was employed. The study locale was Mbooni East Sub County in Makueni County, Kenya. The sample size was determined through stratified random sampling and purposive sampling. Based on a target population of all 47 principals and 360 teachers in 47 public secondary schools in Mbooni East Sub County, the respondents included a principal and three teachers from each of the ten public secondary schools sampled. Through delegation, teachers significantly assist the principals in policy implementation in schools, hence their inclusion. The research instruments used were questionnaires and observation check list. Data from the principals and teachers was collected using questionnaires. An observation check list was used to obtain observable data during school visits. A pilot study was done to ascertain the appropriateness of the research instruments. The resultant data was processed using descriptive statistics. SPSS version 20, helped in data analysis. Presentation of data was done through frequency tabulations and graphical representations. The study established that the level of awareness regarding the safety guidelines was quite low in most public secondary schools in Mbooni East, Makueni County. Consequently, principals had implemented the physical infrastructure safety guidelines in schools to only a small extent. The study concluded that all public secondary schools needed to be assessed for compliance with the established physical structures safety standards and regulations. The study recommended enactment of a policy framework that empowers and compels all school principals to comply with the Ministry of Education physical infrastructure safety guidelines to make school structures safe and learner friendly.

Keywords: Principals' effectiveness, safety guidelines in schools, physical infrastructure in schools

1. Introduction

1.1. Background to the Study

School safety broadly covers the security of the school environment, infrastructure and school based activities. According to Chukwu (2008), a safe school is characterized by working facilities and inherent order, mitigation mechanisms against injury and unrest through a fostering, kind and concerned staff. Republic of Kenya (2008), defines school safety as arrangements made by the school community to manage potentially harmful and traumatizing situations. In schools, unsafe situations are deemed as adverse happenings that cause considerable disruptions to learning. The students and school staff often times are the most affected by these unsafe situations.

Safety programmes improve on the awareness levels, management of accidents and reduction of the resultant damages (Armstrong, 2000). Schools safeguard the learners under their care through their safe and secure surroundings (UNICEF, 2008). Safety in the school premises promotes the learning environment in schools. Melden (2012) argues that, safety concerns facing learning institutions are diverse and varied. 'A number of countries have developed cross-sectional,

national, regional or local strategies of implementing school safety' (Omolo & Simatwa, 2010, p.638). This has largely been informed by incidents affecting school safety in different countries. World over, policies and guidelines that underscore the safety needs of students, staff and the physical infrastructure have been methodically formulated.

The U.S. Department of Justice (DOJ) plays an important role in the implementation of the national school safety programs and policies. The Bureau of Justice Statistics (BJS) develops yearly pointers of school criminality and security data. In 2014 the US Congress established comprehensive school safety initiative, which is an optional grant program administered by the National Institute of Justice, the DOJ research arm, to investigate the possible root causes and effects of school violence and its impact on school safety and devise effective ways to safeguard schools from all forms of threats and hazards (Brock, Kriger & Miro, 2017). United States of America Department of Education (U.S.D.E) demands strict enforcement of safety policies on physical facilities in learning institutions to manage various perilous situations (Schneider, 2002).

The French government in 1995 established a national agency for safety in schools and higher education whose mandate entailed all issues pertaining to the safety of people, premises or equipment. It provides annual reports to government, public authorities and other interested stakeholders. Its 1996, inaugural overview of safety in lower and upper secondary schools focused on all aspects of alarms, safety lighting, non-compliant doors, staircase enclosures and smoke control. From the report, 7% of all buildings were found to be at risk (OECD, 2003).

A research carried out in Nigeria established that, most classrooms in Enugu and half in Kaduna had poor roofing and poor hygiene, thus unsafe (UNESCO, 2010). Moreover, the Boko Haram insurgents had been destroying schools from 2009. This involved arson and damaging of school facilities. As a mitigating measure, Safe School Initiative was introduced, to transfer students from high risk states to safe schools in other parts of the country (Anyanwu, 2016).

Through the Ministry of education, Rwanda has developed '*Child friendly schools infrastructure standards and guidelines 2009*' for primary and lower secondary schools (Rwanda Ministry of Education, 2009, p.5). Through this document the government of Rwanda sets minimum infrastructure standards to be adhered to by all schools in Rwanda. Every school is expected to have appropriate, sufficient and secure buildings

The government of Kenya has since the dawn of its sovereignty in 1963 dedicated itself to improving the standards of education at all levels. Consequently, the government has from time appointed various educational commissions, committees and taskforces to address various challenges facing the education sector (Republic of Kenya, 2008). Constitution of Kenya, has made provision for free and mandatory Basic Education as a Human right to all children in Kenya. This is further amplified in the Basic Education Act, (2013) section 4. Further to this, the Children Act (2001), states that a child shall be entitled to protection from physical and psychological abuse, neglect and any other form of exploitation. The government is also a signatory to international conventions and protocols that have emphasized the right of every human being to quality education; for instance, the UN convention on the rights of the child (CRC) and the world conference on education for all (1990).

The government's commitment to the promotion of access, equity, participation, retention and completion in education is bound to be affected if safety and security concerns are not addressed fully (Republic of Kenya, 2008). It is against this background that the MOE in partnership with Church World Service (CWS) developed in 2008 the, '*Safety Standards Manual for Schools in Kenya*'. The manual serves as a blue print for enhancing safety in schools across the country. It focuses on creating and maintaining safe, secure and caring school environments that facilitates and enhances quality teaching and learning processes in all schools. The manual outlines 13 diverse school safety components each with the relevant safety standards and guidelines. Physical infrastructure is one of the key components. The manual states that an indicator of school physical infrastructure safety is adequate and well maintained facilities.

School plant plays an important part in the realization of learning aims as well as the emotional needs of staff and students in a learning institution (Squelch, 2001). Elianson and Frank (2002) cited in Gatua (2013) argues that, safety of the school plant contributes to a safe learning atmosphere in schools. Good physical amenities reduce truancy amongst students and in turn promote students' academic attainment (Republic of Kenya, 2015). In this context physical infrastructure entails; classrooms, dormitories, sanitary facilities, laboratories, library and administration block.

Inappropriate school infrastructure such as defectively erected dormitories and classrooms, inadequate and dilapidated toilet and bathroom facilities are a threat to students' safety and security in school. Such environments promote delinquency and truancy in students. Conversely, good educational facilities foster quality education service delivery and promote delight in the academic environment.

Existing facilities in most public secondary schools in Kenya are incomplete, inadequate or dilapidated. Significant increases in school enrolments as a result of FDSE funding have led to overstretched facilities and congestion in public secondary schools in recent years. This has been exacerbated by insufficient infrastructure funding, reduced investment, weak building ethics and deficient preservation (Republic of Kenya, 2015).

Various studies on school safety in public secondary schools in Kenya concur that, most schools are yet to implement all MOE safety standards and guidelines. Omolo & Simatwa (2010) posits that no single policy had achieved 100% implementation in any of the schools studied. This view is supported by Maritim, King'oo & Barmao (2015), Muthiani (2016) and Nyakundi (2012). In reality most schools have not met the minimum safety standards on physical infrastructure as contained in the safety standards guidelines manual.

According to the Basic Education Act (2013), the Principal as the B.O.M secretary is mandated to ensure and assure the provision of proper and adequate physical facilities for the institution. As officers, tasked with the day to day running of schools, principals have a responsibility to ensure the school environment is conducive for learning. The TSC Code of Regulations (2015) further stipulates that, principals must ensure proper management of the institutional

resources. As such, principals are legally mandated to implement all government and B.O.M policies and programmes, including the *Safety Standards Manual for Schools*. Therefore, principals' effectiveness largely determines the successful implementation of the physical infrastructure safety guidelines in public secondary schools as envisaged in the *2008 Safety*

1.1.1. Standards Manual for Schools in Kenya

In most public secondary schools in Kenya, safety kit and apparatus are either missing or inadequate, safety and evacuation drills are rarely conducted, most structures have not been constructed in line with the safety guidelines specifications and most school authorities are not cognizant of the safety guidelines in their operations and plans. Consequently, most school environments are unsafe and hazardous, where even the basic safety standards have not been met. As such, some of the school unrests and arson incidents arise as students try to cope or escape from the stressful school environments. Adherence to the safety guidelines on the physical infrastructure can help avert some of these incidents amid the rising school enrolments due to the FDSE funding to public secondary schools and the government's commitment to ensure 100% transition to secondary schools.

According to the SCDE Mbooni East, in the last three years more than 50% of secondary schools in Mbooni East reported varying forms of school unrest. With inadequate and inappropriate school facilities being among the notable grievances adduced by students and teachers. As it is the case in most parts of the country, most principals in Mbooni East had not proactively taken adequate safety precautions and actions to safeguard their schools in line with the safety guidelines. Questions abound on the principals' effectiveness as school administrators and persons legally mandated to lead the implementation of safety guidelines in their respective schools.

Hence the main focus of this study was to examine the effectiveness of principals in implementing the physical infrastructure safety guidelines. This effectiveness is likely to be influenced by both individual factors and institutional factors. As such, individual factors may entail; awareness, training, administrative experience, monitoring and evaluation programmes among others. Institutional factors may include; school's physical infrastructure safety needs, physical infrastructure safety determinants (such as availability of funds, staff and students awareness, congestion, time constraints, available safety equipment and drills) and effective physical infrastructure safety practices and programmes (such as awareness practices and programmes, structural safety of school buildings, safety committees, QASOs monitoring and evaluation and existence of functional guidance and counseling departments.)

1.1. Statement of the Problem

The existence of the *2008 Safety Standards Manual* in Kenya has not translated to safe and secure schools. This policy document has hardly been actualized in most schools. A random visit to secondary schools in Kenya, would generally establish that many schools operate oblivious to the safety guidelines on physical infrastructure.

Most classrooms are seriously congested, with narrow doorways and in some, their windows, still have grills. The situation gets even more deplorable when one visits the dormitories, which are invariably characterized by congestion and clutter in an attempt to fit more students by the school authorities. In most schools, sanitation facilities are dilapidated and filthy. Fire safety equipment and precautions are deficient and as a result students have been torching their dormitories with ease. Monitoring and evaluation programmes on school safety by Quality Assurance and Standards officers are scanty or non-existent. Consequently, the school plant in most community secondary schools negates the safety guidelines and therefore exposes students to numerous perils and risks.

This perilous state of physical infrastructure in most of the secondary schools weighs heavily on the school principals as managers and custodians of school resources. Questions linger in the minds of many people on the level of principals' awareness, their role and efficacy regarding the adherence of safety standards manual specifications on physical infrastructure. Most of the persistent and destructive incidents in secondary schools, affecting Mbooni East and other parts of the country could have been prevented if principals had spearheaded and initiated pragmatic enactment of safety policies and programmes in their schools.

1.3. Purpose and Objectives of the Study

The intent of this study entailed the assessment of the principals' effectiveness in the adherence to the safety standards on physical structures in secondary schools in Mbooni East, Makueni County. The study was geared towards achieving the following objectives: To establish the level of principals' and teachers' awareness on the existence of safety guidelines in public secondary schools in Mbooni East Sub county. To find out the extent to which the principals have implemented the physical infrastructure safety guidelines in public secondary schools in Mbooni East Sub County.

1.4. Theoretical Framework of the Study

This research was based on the ERG theory which is a motivational theory developed by Clayton Alderfer in 1969 (Standifer, 2013). ERG stands for 3 basic needs - Existence, Relatedness and Growth; that effect human behaviour. Okumbe (1998) argues that, the existence needs are about sustaining human existence, including physiological and safety needs. Relatedness needs govern how people relate to their social environment while growth needs entail the development of human potential, including self-esteem and self-actualization. Alderfer's theory represents an expansion and refinement of Abraham Maslow's hierarchy of needs theory (Standifer, 2013). Like Maslow's model, the ERG theory is hierarchical; existence needs have priority over relatedness needs, which have priority over growth needs. The theory reduces the number of needs levels. ERG theory significantly differs from Maslow's theory in three ways: The ERG theory allows for simultaneous pursuit different levels of needs. It allows for the order of needs to be different for different

people. It provides for regression to a lower-level need if a higher-level need remains unfulfilled. This is referred to as the frustration-regression principle. The converse, being satisfaction progression principle, where a lower level need does not necessarily have to be gratified for a higher level need to become relevant.

At school level, this theory implies that physical structures in a school must be fit for the purpose, sufficient well situated and user friendly (Republic of Kenya 2008). This takes cognizance of the students and teachers existence needs while in school. Secondly, school administrators must acknowledge and respond to the student and teachers multiple simultaneous needs. Focusing on only one need at a time may be counterproductive. Failure to attend to students and staff relatedness and growth needs in a school may impact itself negatively through renewed agitation for existence needs such as food, uniform and safety concerns leading to school unrests and destruction of school's physical infrastructure.

This theory was pertinent to the study since most school unrests and arson cases have been largely associated with schools where school administrators and teachers have been unresponsive to the students' needs or where the students are not sufficiently motivated in terms of self-discipline and academic excellence. Similarly, the pressure for schools to perform in National exams had made most schools to over emphasize on performance (growth needs) at the expense of fundamentally more urgent and basic needs such as safety and interpersonal relationships between and among students, teachers and school administration. This may cause frustration leading to regression which may manifest itself through incitement and aggression and hence destruction of school property or loss of lives in extreme cases

2. Literature Review

2.1. Rationale for the Introduction of Safety and Security Policies in Schools

For a welcoming school, safety in its physical infrastructure is an imperative. According to Hinum (1999), consequences of poor school infrastructure maintenance include; deterioration of buildings, unsafe and unhealthy environment, vandalism and lower quality of teaching and learning. Sustainable Development Goals, (SDGs) goal 4, target 4a.) Bids and commits countries world over, to develop and improve learning that take cognizance of different learners' needs and orientations (United Nations, 2015).

In 2014, United States (U.S) Congress established Comprehensive School Safety Initiative (CSSI). The CSSI Initiative is a flexible funding program administered by the National Institute of Justice (NIJ) to point out and analyze the inherent drivers and effects of schools' unrest and its influence safety of schools, and to formulate effective ways to safeguard schools from unsafe situations and risks (Brock, Kriger & Miro, 2017).

According to Ali & Fatima (2016), the ongoing safety programmes and projects throughout Pakistan are led by NGOs, civil society and media in response to the following global initiatives; 2006-2007 world campaign on disaster reduction, the Hyogo framework for 2005-2015 and the UN Decade on education for sustainable development. Local knowledge and cultural contexts are incorporated in the implementation of risk reduction as key as aspect of school safety on national/local level policy requirements in Pakistan.

Xaba (2006) in a study on safety and security of physical environment in South African township schools observed that wide-ranging school protection measures needed to be adhered to. The policies should entail institution managed programs and cooperation with external organizations. In the East Africa region, Rwanda has developed *Child friendly schools infrastructure standards and guidelines 2009 for Primary and Tronc Commn schools*. It outlines the minimum infrastructure safety standards for schools in Rwanda (Rwanda ministry of Education, 2009).

Rampant incidents of school disasters have made the government of Kenya take measures to ensure school safety by issuing periodical circulars on school safety and the *2008 Safety Standards Manual for Schools in Kenya* (Chemeli 2004). These initiatives are aimed at creating safe zones in schools. The Kenya government has through the MOE, institutionalized and mainstreamed school safety by introducing safety policies in Kenyan schools (Republic of Kenya, 2008). This underscores the government's policy interventions in managing the issue of school safety. Nevertheless, continuing cases of school unrest and destruction of school property in most public secondary schools especially dormitories, points out to gaps and unanswered questions regarding adherence to safety strategies in schools. Evidently, there is a disconnect in theory and practice in most public secondary schools with regard to school safety policy implementation.

2.2. Principals' Effectiveness in Relation to the Safety Guidelines Implementation

According to Mbiti (2007), effectiveness in administration refers to timely attainment of desired results as benchmarked against set goals. He further observes that principals' effectiveness is determined by factors such as skilled personnel, proper equipment, time and money. Ineffectiveness results in wastage of resources and opportunities.

The Basic Education Act (2013) and the TSC Code of Regulations (2015) are two key legal documents that empower principals to perform the day to day running of schools as the schools' chief executive officers. Moreover, principals as the secretaries to the school BOMs are tasked with the responsibility of policy implementation at school level. As such, principals are central to the success of policy implementation in schools. Regarding the implementation of safety guidelines, principals perform the following key roles; coordination of all policy implementation activities in schools, ensure efficient utilization of resources, provide leadership to the school safety sub committees, address threats to the school safety and monitor and evaluate the implementation process in their schools (Republic of Kenya ,2008).

2.3. Level of Awareness on Existence of Safety Standards Manual in Schools

Schools and colleges play a crucial role in preparing children and young people to be able to recognize and manage risk (ROSPA, 2012). Bastidas & Petal (2012) asserts that school personnel should have the opportunity to develop response skills for disasters and emergencies. Indeed ROSPA (2012) recommends teaching of safety in schools as an all-inclusive individual and societal and wellness learning to make students become well-adjusted citizens. Bastidas & Petal (2012) concurs that risk reduction should be integrated holistically and taught as part of school curricula from pre-school through secondary school.

In U.S the Readiness and Emergency Management for Schools (REMS) program received grant funding from the Education Department(ED) to LEAs (Local Education Agencies) 'to create, strengthen and improve emergency response and crisis plans at the district and individual school-buildings levels' (Brock, Kriger & Miro, 2017, p.36). OECD (2003) points out that in 1995, the French government established a national agency for safety in schools and higher education which prepares and sends out reports to the government, public authorities and all other stakeholders interested in school safety. The school safety publications are supported by training initiatives with emphasis on physical, effective monitoring and control safety dimensions. In South Africa, township schools had not entrenched safety awareness at school level. Emergency procedures were lacking, contributing to non-implementation of most safety policies. Indeed, safety 'situations in schools were handled as they occurred' (Xaba, 2006 p.577).

Kisurulia, Katiambo & Lutomia (2015) established that most schools had the MOE safety and standard manual for schools. This agrees with Muthiani (2016) findings, that majority of teachers acknowledged copies of safety manuals were available in their schools. Nyakundi (2012) found out that many schools had received circulars and guidelines from MOE on school safety in Marani district. Migiro (2012) further affirms in most schools safety guidelines consciousness was quite high.

However, Gatua (2013) established that many teachers and students lacked sufficient understanding on safety standards for schools. Ng'ang'a (2013) concurs that the level of awareness on MOE safety standards among teachers in public secondary schools in Nyeri central district was indeed poor. Evidently, various studies discussed have failed to agree in their findings regarding the availability and knowledge on MOE safety guidelines.

Training is an essential aspect in raising the level of awareness on safety guidelines among principals, teachers and students in secondary schools. Studies by Ng'ang'a (2013), Kirui, Mbugua & Sang (2011), Rono & Kyalo (2009) concur in their findings that most principals and teachers had not been trained as a way of enhancing preparedness to handle emergencies. Gatua (2013) established that majority of teachers, (70.8%) had reported that awareness courses were rarely offered in their schools. 73.8% indicated that fire drills were rarely conducted in their schools. Consequently, lack of frequent fire drills leaves the students and staff ignorant of the steps they should take in case of a fire outbreak (ibid). Kirui, Mbugua & Sang (2011), reported that only 37% of school Heads had attended any security management course compared to 21.4% BOM members and 40% security guards. This indicates that most school Heads and BOM members were not making informed decisions concerning security in their schools and thereby endangering life and property.

Makhanu (2009) further observes that, fire and safety departments in most learning institutions were non-existent and members were not trained or equipped to fight fire in schools. In order to address these training needs on school safety, it is imperative that MOE introduces disaster preparedness theory and practice into schools and training institutions curriculum at all levels to equip stakeholders with adequate skills for prevention of fire disasters (Ndetu & Kaluyu, 2016). This is further supported by Wanjala & Onyango (2017) in asserting that disaster awareness and preparedness in secondary schools leads to reduced risk of losing property, reduced chance of death, reduced personal injuries increased institutional resilience to adverse conditions and minimum interruptions of learning in schools. Arguably, the level of awareness on safety guidelines in most public secondary schools in Kenya according to the studies reviewed is quite low and varied. This research investigated the situation in Mbooni East, Makueni County regarding the level of awareness of the safety standards guidelines.

3. Research Methodology

3.1. Research Design

The research design used was descriptive survey. 'Descriptive research is concerned with describing the characteristics of a particular individual or of a group' (Kothari, 2004, p.37). This design enabled the researcher to collect data on compliance with the physical structures safety standards in entire Mbooni East Sub County by surveying a sample of the target population. Through this design, the requisite information obtained through questionnaires and observation checklist, was used to answer the pertinent research questions.

3.2. Location of the Study

The study was done in Mbooni East Sub County which is one of the two Sub Counties that make up Mbooni Constituency, the other one being, Mbooni West Sub County. It is one of the 9 Sub Counties in Makueni County, Kenya. It was chosen because of the heterogeneity of the potential study population. There have been recurrent cases of school property destruction through school unrests in Mbooni East Sub County with most schools lagging behind in the implementation of the physical infrastructure safety guidelines. Moreover, such research had not previously been done in the chosen area.

3.3. Target Population and Sample Size

According to the SQASO Mbooni East, there are 47 public secondary schools and 360 teachers in Mbooni East Sub County. Therefore, the target population comprised of the entire 47 principals and 360 teachers in the 47 public secondary schools in Mbooni East Sub County. Principals and teachers are tasked with daily school operations and implementation of government policy guidelines in their respective schools. The principals usually delegate tasks and duties to their teachers either, individually or jointly through committees. Teachers enhance the effectiveness of principals in policy implementation in schools, hence their inclusion.

The 47 schools were divided into strata according to the following categories: Boys boarding; Girls boarding; mixed partial boarding; mixed day schools. The number of school(s) in each stratum proportionately determined the sample size in terms of the number of schools selected from each stratum. The selection of individual schools in each stratum was done through random sampling. As such, the 10 public secondary schools selected, comprised of 1 Girls boarding, 1 Boys boarding, 2 Mixed Partial boarding and 6 Mixed-day Schools. From each of the selected schools, all the 10 principals from the selected schools were purposively included in the sample and 3 teachers were randomly selected. Therefore, the total number of subjects was 10 Principals and 30 Teachers.

3.4. Research Instruments and Data Analysis

The study had three instruments a questionnaire for principals and another one for the teachers and an observation checklist for each school visited. Questionnaires aided the researcher to capture factual data for the study in the field. Observation checklist was essential for capturing the observable physical infrastructure safety features in the sampled schools.

Data analysis refers to examining what has been collected in a survey or experiment and making deductions and inferences' (Kombo & Trump, 2006, p.117). Analysis of data collected was based on the research objectives. During data analysis, raw data edited, coded, classified, tabulated and subjected to descriptive statistics. Collected raw data was also examined to detect errors and omissions. Appropriate corrections were made to ensure the data was accurate, consistent with other facts gathered, uniformly entered and complete (Kothari, 2004).

After editing, the data was coded. Coding involved 'assigning numerical or other symbols to answers so that responses can be put into a limited number of categories or classes' (ibid, p.123). Coding made it possible for several responses to be reduced to a manageable number of categories through classification. Data was grouped depending on the similar characteristics. This allowed for tabulation of data. Statistical package for social sciences (SPSS) assisted in organizing available data as appropriate. Frequencies and percentages were used to analyze the data. Presentation of data was done using tables, charts and graphs.

4. Discussion of Research Results

4.1. Level of Awareness on Safety Guidelines

The first objective of the study was to establish the level of the principals and teachers' awareness on the existence of safety guidelines in public secondary schools in Mbooni East, Makueni County. The findings on the level of awareness on safety guidelines have been discussed under the following sub headings.

4.2. Availability of the MOE Safety Standards Manual

All principals and teachers affirmed that their schools had the MOE safety standards manual. This agreed with the studies done by Kisurulia, Katiambo & Lutomia (2015), Nyakundi (2012) and Muthiani (2016) which also established that majority of schools had the safety standards manual.

4.3 Storage of Safety Standards Manual in Schools

Table 1 below captures principals' and teachers' responses on storage of safety standards manual in schools.

Respondent	Principals' Office		D/principals' Office		Staffroom		library	
	F	%	F	%	F	%	F	%
Principals	8	80	3	30	3	30	1	10
Teachers	17	63	6	22.2	6	22.2	112	44.4
Total	25		9		9		132	

Table 1: Storage of Safety Standard Manuals in Schools

The findings indicated that in most schools, the available safety and standards manuals were largely being kept in the principal's office as opposed to staffroom and library for greater access and readership by both teachers and students. Gatua (2013) in her study also established that majority of students and teachers could not access the safety standards manual in their respective schools. Similarly, Ng'ang'a (2013) also found out that both the teachers and students had little or no awareness of the standards manual.

4.3 Posting of Safety Notices on School Buildings

The study sought to establish whether schools had safety notices posted in the relevant buildings and areas within the school premises. Table 2 shows principals' and teachers' responses on the extent to which safety notices were posted on buildings in schools.

Respondent	Very great extent		Great extent		Staffroom		Moderate extent		None	
	F	%	F	%	F	%	F	%	F	%
Principals	2	20	3	30	3	30	2	20	2	20
Teachers	2	7.4	5	18.5	6	22.2	6	22.2	2	7.4

Table 2: Extent to which Safety notices were on school buildings and premises

Safety notices warn learners and school staff of the inherent dangers and also inform them of the necessary action or precautions to be taken in case of emergencies. As such, from the findings, majority of the staff and students in Mbooni East had not been sufficiently sensitized on safety precautions. These findings are in agreement with similar observations made by Chemeli (2014) and Xaba (2006) regarding safety notices and emergency procedures.

4.4. Training on Safety and Emergency Preparedness

Table 3 summarizes principals' and teachers' responses on the frequency of training on school safety and emergency preparedness.

Respondent	Always		Often		Sometimes		Rarely		Never	
	F	%	F	%	F	%	F	%	F	%
Principals	0	0	1	10	4	40	5	50	0	0
Teachers	0	0	3	11.1	9	33.3	14	51.9	12	44.4
Total	0		4		13		19		12	

Table 3: Frequency of Principals' and teachers' training on school safety and emergency preparedness

The findings indicated that the principals and teachers had undergone minimal training on school safety and emergency preparedness. This was established to be an occasional undertaking as opposed to routine training programme for both the principals and teachers in Mbooni East, Makueni County. These findings are in agreement with the findings by Kirui, Mbugua & Sang (2011) and Rono & Kyalo (2009) who also established that most principals and teachers had not been trained as a way of enhancing preparedness to handle emergencies. Consequently, principals and teachers were not sufficiently informed on matters pertaining to school safety and emergency preparedness.

Figure 1 illustrates the areas of training on school safety and emergency preparedness that those principals and teachers who had been trained were exposed to.

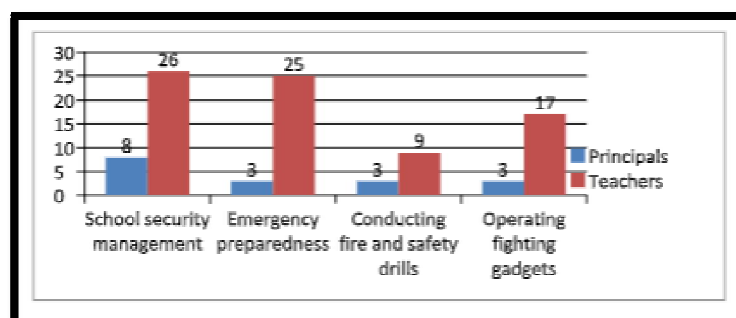


Figure 1: Areas of Training on School Safety and Emergency Preparedness

The areas of training reflected above are pertinent to school safety. However, the irregular and occasional training participation by both the teachers and principals hampered the training effectiveness.

4.5. Frequency of Conducting Safety Drills

The findings indicated that none of the principals had always conducted safety drills in their schools. Majority of them reported to have occasionally conducted safety drills and nearly a third indicated they had never conducted any safety drills in their schools. The teachers' responses also corroborated with the principals' responses where majority of teachers affirmed to have rarely or never conducted safety drills in their schools. Table 4 summarizes these findings.

Respondent	Always		Often		Sometimes		Rarely		Never	
	F	%	F	%	F	%	F	%	F	%
Principals	0	0	1	10	4	40	3	30	3	30
Teachers	1	3.7	2	7.4	8	29.6	6	22.2	11	40.7
Total	1		3		12		9		12	

Table 4: Frequency of Conducting Safety Drills in Schools

4.6. Condition of Physical Infrastructure in Schools

The second objective of the study was to find out the extent to which the principals had implemented the safety guidelines on the physical infrastructure in public secondary schools in Mbooni East, Makueni County. The respondents were tasked to indicate whether the physical infrastructure safety guidelines had been implemented in their respective schools. Table 5 captures the principals' responses.

S/no	Physical infrastructure safety guidelines	Implemented		Partially implemented		Not implemented	
		F	%	F	%	F	%
•	At most 40 learners per classrooms.	2	20	8	80	0	0
•	Classrooms, dormitory and laboratory windows to be without grills and opening out wards.	9	90	1	10	0	0
•	Each classroom block to be fitted with fire extinguishers.	1	10	4	40	5	50
•	Classroom doors to be sufficiently wide for emergency evacuation and to open to the outside.	8	80	1	10	1	10
•	Spacing between beds to be at least 1.2 metres and the corridor space not less than 2 metres in all dormitories.	2	20	3	30	1	10
•	Each dormitory doorway at least 5 feet wide and open outwards.	2	20	3	30	0	0
•	Two dorm doors on both ends and an additional exit in the middle.	1	10	1	10	2	20
•	Functioning fire extinguishers placed at each dormitory exit point.	3	30	4	40	4	40
•	Adequate toilet facilities for the students in line with the school enrolment.	6	60	2	20	0	0
•	Clean and properly maintained toilets.	8	80	4	40	0	0
•	Spacious library with wide alleys of passageways to facilitate evacuation.	0	0	4	40	4	40
•	Centrally located administration block which is not far from classrooms.	5	50	3	30	3	30
•	Use of fire resistant cabinets for storage of essential office items and documents.	1	10	4	40	5	50
•	No congestion in the laboratory during practical lessons.	3	30	4	40	3	30
•	All buildings to be well-ventilated and adequately lit at night.	6	60	3	30	1	10
•	Availability of fire extinguishers in the laboratory, kitchen, library and administration block.	4	40	3	30	30	

Table 5: Principals' Responses on the Extent to Which the Principals Had Implemented the Safety Guidelines on Physical Infrastructure In Their Schools

Majority of the principals reported to have only fully implemented the following physical infrastructure safety guidelines: Classroom, dormitories and laboratories windows to be without grills and opening outwards, Classroom doorways to be adequate for emergency purposes and opening outwards, Adequate toilet facilities for the school in line with the school enrolment, Clean and properly maintained toilets and All buildings to be well-ventilated and adequately lit at night.

These findings agreed with the assertion by Omolo & Simatwa (2010, p.646) that 'no single policy had achieved 100% implementation in any of the schools studied'. Most principals reported to have partially implemented only one guideline that, 'classrooms should at most have 40 learners'. This could be attributed to the pressure to admit more students in secondary schools in line with the 100% transition to secondary school government policy.

It was also established that nearly half of the schools had not implemented at all the following physical infrastructure guidelines: Each classroom block to be fitted with fire extinguishers, Spacing between beds to be at least 1.2

metres and the corridor space not less than 2 metres in all dormitories, Each dormitory to have a door at each end and an additional emergency exit in the middle, No congestion in the laboratory during practical and Availability of fire extinguishers in the laboratory, kitchen, library and administration.

These findings agreed with Gatua's (2013) findings that, classrooms were unsafe in most schools due to overcrowding and poor arrangement of furniture. Similarly, the dormitories were found by Wanjala & Onyango (2017), Ndetu & Kaluyu (2016) and Omolo and Simatwa (2010) to be congested and unsafe. In most schools covered by their studies, fire safety kits were defective and inaccessibly located. Moreover, Wanjala & Onyango (2017) also established that in most schools, dorms had no sufficient emergency exits. Related to these findings, Gatua (2013) observed that laboratories were inadequate in most schools and as such, there was overcrowding during practical lessons.

Indeed from the observation checklist, this researcher was able to establish that most schools did not have fire extinguishers in strategic places. In some schools especially day schools, there were no fire extinguishers at all. In nearly two thirds of the schools, the security lighting was poor or non-existent. This made most buildings and their environs to be unsafe at night there by predisposing the users to numerous perils due to darkness.

The teachers' responses regarding the condition of the physical infrastructure in their respective schools fairly corroborated the principals' responses as discussed above. Table 6 highlights the teachers' responses on the condition of the physical infrastructure in their schools.

S/no	Physical infrastructure safety guidelines	Implemented		Partially implemented		Not implemented	
		F	%	F	%	F	%
•	At most 40 learners per classrooms.	7	25.9	19	70.4	1	3.7
•	Classrooms, dormitory and laboratory windows to be without grills and opening out wards.	21	77.8	6	22.2	0	0
•	Each classroom block to be fitted with fire extinguishers.	7	25.9	19	70.4	1	3.7
•	Classroom door ways to be adequate for emergency purposes and opening outwards.	23	85.2	3	11.1	1	3.7
•	Spacing between beds to be at least 1.2 metres and the corridor space not less than 2 metres in all dormitories.	10	37.0	2	7.4	0	0
•	Each dormitory doorway at least 5 feet wide and opening outwards.	11	40.7	1	3.7	0	0
•	Dormitories have doors on both ends an extra emergency door in the middle.	10	37.0	2	7.4	0	0
•	Functioning fire extinguishers placed at each dormitory exit point.	3	11.1	1	3.7	4	14.8
•	Clean and properly maintained toilets.	22	81.5	6	22.2	0	0
•	Spacious library with wide alleys of passageways to facilitate evacuation.	4	14.8	3	11.1	19	70.4
•	No congestion in the laboratory during practical lessons.	6	22.2	10	37.0	11	40.7
•	All buildings to be well-ventilated.	18	66.7	4	14.8	5	18.5
•	All buildings to be adequately lit at night.	7	25.9	20	74.1	1	3.7

Table 6: Teachers' Responses On The Extent To Which The Principals Had Implemented The Physical Infrastructure Safety Guidelines In Their Schools

4.7. Conclusions of the Study

This study with reference to the findings has resulted in two main conclusions as follows: The level of awareness regarding safety guidelines was quite low in most public secondary schools in Mbooni East, Makueni County and the principals were yet to effectively implement the physical infrastructure safety standards. Hence the condition of the physical structures in most schools with regard to safety was wanting.

5. Recommendations of the Study

The study makes the following recommendations: The Government should enact a policy framework that empowers and compels all principals to effectively implement the MOE safety standards guidelines on physical infrastructure in all public secondary schools. QASOs should be sanctioned to regularly monitor and evaluate the principals' effectiveness in the implementation of physical infrastructure safety guidelines in all public secondary schools.

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