



# **Safety Training and Equipment in Students’ Preparedness for Emergencies in Public Boarding Secondary Schools**

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**Abstract:** *School safety is an important aspect of the teaching and learning process. It is therefore recommendable that educational stakeholders focus on safety of school environment to enhance a conducive study environment for students as a way of fostering both retention and completion. Despite the existing disaster management manuals in schools, disasters and their effects are still evident in our schools. This is depicted from the occasionally reported cases of casualties in schools’ emergencies. Therefore, this study investigated the influence of safety trainings and safety equipment provision in students’ emergency preparedness in Malindi Sub County. Using a descriptive survey research design, the study was carried out in Malindi Sub County with a target population of 19 boarding secondary schools and a sample of 2 girls’ schools’ Head teachers, 4 boys’ schools’ Head teachers, 59 teachers and 364 students. Using questionnaire interview schedules and observation checklists, primary data was collected. Data analysis entailed descriptive statistics using computer programme, Statistical Package for Social Sciences (SPSS) version 23.0. The study found that schools’ safety equipment is inadequate hence contributing to emergency unpreparedness. The students are rarely trained in emergency preparedness and only fewer safety equipment, including fire extinguishers, fire alarms and fire exits were available in most schools.*

**Keywords:** *School safety, Safety training, Safety equipment, Emergency preparedness, Secondary schools, Students*

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## **1. Introduction**

Before the 21st century, schools were only confined to educating students unlike today when they are also charged with physically protecting students. When

pupils were faced with natural disasters, fires, health-related pandemics, attention was spent considering better safety measures and emergency preparedness. School safety is a global concern while it is evident that there is many parts of worldwide ignore the steps towards enhancing school safety (Hodes, 2016).

Across the United States, educational institutions across the board are struggling with design and placement of stronger and more resilient learning environments (The Association Press U.S.A Journal, 2018). This came as a result of reported cases of insecurity at the schools. A tragic event took place at Stoneman Douglas high school in May 2018 where some shootings were reported leading to 12 pupils being killed. Again, at Sante Fe high school death of 14 pupils was reported due to shootings (Platoff, 2018).

In Britain, the school shootings cases had also been reported where 16 pupils and one teacher were killed by gunmen who attacked the school. This incident caused unrest among the neighboring schools (Earney, 2011). In 2014, the school safety department of Japan reported having supported efforts to prevent accidents at school by managing, analyzing, and studying the cases of insecurity. This happened after a female student stabbed her colleague in a dormitory at Mbale secondary school (Mafabi, 2017). In Egypt, girls and boys are harassed and abused at school by fellow students and some of the teachers. A report by Reuters (2014) stated that an Egyptian middle school teacher was arrested because of harassing and abusing pupils in the class.

While every educational institution puts efforts into creating a more resilient learning environment, this trend is characterized by the core necessities of providing efficient secondary education. It is important to note that this scenario experiences competing functionalities. This whole process also requires emergency preparedness as planning of daily activities is carried on. The Kenyan Education ministry made suggestions that classrooms should accommodate up to 40 students to minimize overcrowding as one of the safety measures and to provide a favorable environment for students to learn (MOEST, 2007).

Emergency calamities are popular in Kenyan learning institutions. More specifically, fire exposure to institutions of learning can be attributed to several factors such as failure to have safety measures such as lack of exit points, lack of firefighting tools, and inadequate firefighting facilities among others. Incidents of fire have been severally reported where dormitories have been burnt down and students have been losing their belongings. At Highway school in Nairobi, more than 10 students lost property in a dormitory, and at Kirege mixed high school, 78 students were forced to spend the night in the cold as fire gutted their dormitory (Mutura, 2018).

School violence, fires, and unrest have increased the need for emergency preparedness in Kenyan schools (Nation Media, 2016). These disasters are sometimes caused by pupils' indiscipline and unrest. A similar case has been reported at Mokowe secondary school in Lamu County where property worth 7.5 million had been destroyed after a fire gutted a dormitory. It had earlier been reported that students refused to eat and attend classes because they were protesting bad food (Nema, 2018). After fire incidents, suspected students are usually taken to court. This had been evidently exhibited in Lamu boys' high school where ten students were arrested by police for attempting to set the school on fire (Nema, 2018). This move did not solve the problem which led to the loss of property worth millions of shillings, nor did it address school fires by coming up with solutions. A case of the same was reported where the property of unknown value was destroyed after a fire burnt a library and dormitory in Malindi Sub County (Nation media, 2016). With all these reports, our schools in Kenya face a lot of challenges in relation to safety issues, therefore there is a need to come up with solutions on school emergency preparedness. Thus, this study investigated the gap in the students' emergency preparedness as a failure of public boarding secondary schools in Malindi Sub County to set up and implement safety measures including safety training and safety equipment provisions.

## **Theoretical Framework**

This study was guided by two theories that relate to safety preparedness. The first one was the Systems theory as suggested by Peter Senge being part of the sociological theory that stems from systems demand (Czarnecki, 2012). The systems theory is based on the fundamental of a very deep and persistent commitment to real learning. It is important for everyone to get prepared for making a mistake. If it was pretty obvious what people ought to be doing, then they could already be doing it. People should look for appropriateness of dealing with problems other than doing nothing; this is achievable through sharing of ideas and planning what to do. In so doing, this cultivates a culture to solve problems that are based on the understanding that there exists a problem and a solution can be found.

In line with this study, it is important for schools to accept change and embrace it to reap better results. Calamities caused by fire are severe hence they might lead to loss of life and destruction of property, it is therefore important for educational institutions

to take protective measures and prevent any form of loss that might emanate from fire. It is obvious that most people fear the introduction of change however, in most cases change is perceived to be good at all times since it seeks to improve the current situation on account of some weaknesses observed in the present situation (Senge, 2006).

The second theory was the Protection Motivation Theory (PMT) as anchored in the systems theory. PMT is a health behavior-change model, which explains how individuals adopt protective measures when a disaster strikes (Rogers, 1983). This theory elucidates the fear that arises from communication that exposes individuals to an outcome that is risky (Perloff & Bay, 1991). This theory points out that the people intended to protect themselves from any harm are influenced by four beliefs that include risk severity, vulnerability, perceived efficacy, and self-efficacy. The theory notes that people's intent to protect themselves is weakened by perceived costs of minimizing reduction of risk behavior and perceived gains to oppose risk-enhanced behavior (Pechmann et al., 2003). Going by this study, the administration of most schools might perceive disasters as risky and hence equip schools for security. However, the schools are always faced with a shortage of finances that consequently affect the adequacy of strategies employed in ensuring proper safety preparedness against insecurity thus increasing their level of safety unpreparedness.

## 2. Literature Review

A safe school is described as one that poses no risk and dangers to students during the school sessions. This is where; tutors and all students may stay for their daily activities with no intimidation, humiliation, and violence (Prinsloo, 2007). Makhanu (2009) explains the lack of safety departments in educational institutions. This was thought to have been caused by religion (on the belief that God takes care of unpredictable calamities) and negligence. Recommendations were made on the need to educate students on safety measures, what to do in case a disaster strikes, and the preparations to make to mitigate the magnitude of the occurrence of a disaster. Makhanu (2009) insists that students should have a copy of written instructions on the steps to follow whenever there is a disaster. In larger educational institutes, a specific person is held accountable to organize and train students on how to conduct themselves in the event of a disaster.

Disaster safety policy guidelines require that schools should participate in fire drills at least twice per term.

Kukali (2009) notes that lack of basics concerning emergencies or the measures to take in the event of calamity is to blame for a large number of fatalities. Staff and students should participate in an emergence drill constantly to gain skills and to understand the dynamics of emergence calamities - what to expect and how to counter emergencies efficiently. In most cases, this rarely happens in the local schools. They tend to wait until something happens then they engage in unnecessary blame games.

Italy had seen most Student Associations run into political characterization with alignment towards the country's political structures and levels. Across the country, several associations are now registered and charted (Ian, 2010). However, others exist in an informal perspective but with well-organized leadership and stipulated goals. The scope and objectives for such associations vary from one group to another with specific goals confined within international studentships, volunteer services among others. These have played a great role for educational institutions in addressing security concerns. Through the associations, training and dispensation of information regarding safety measures have been achieved. Unfortunately, this is not common for some educational institutions especially in developing countries like Kenya. The students' associations are instead the Centre of conflicts rather than solutions in schools. The untapped resourcefulness of the associations has denied such institutions the power to uphold risk awareness and preaching of safety measures (Ian, 2010).

While this protrudes in Italy and other countries, very few studies have established the consistency of schools' management engaging Student Associations in disaster management. The potential for this approach to safety preparedness is recommendable. This is a strong tool in monitoring and managing many educational institutions' emergency planning strategies. Engaging students in setting risk management practices will enhance dispensation of the guidelines that focus on school safety measures. This will also create training forums on possible response behavior, protective gear, and emergency procedures (Ian, 2010). All educational institutions that focus on such an approach should not find challenges in implementing the goals of associations as the high number of enrollment of students consequently create a pool of such associations.

Torrington, Hall and Tayloy (2008) emphasized the importance of training. They insisted that training create awareness of the regulations and improve discipline in the school environment. Training for school administrators', teachers' school safety officials, school staff, parents, and the community agency partners aids in learning how to prevent insecurity cases. The training sessions are workshops, seminars, and table meetings on crisis preparedness. Training enables schools to be aware of any danger and prepare in advance on how to prevent it before it worsens and destroys property. Schools fire drills prepare students for what they need to know in case of a fire outbreak and they enable the staff and students to escape in advance (Comolloti 1999). While training are necessary it is also good to have group brainstorming activities that can be conducted informally at a round table.

Inadequate funds and failure to understand the importance of safety equipment discourage schools from utilizing this equipment in developing countries (Shaw, 2002). Ians (2010) finds that disaster preparedness was not a priority to most schools in India. Most schools were concerned about the number of students they admitted, little effort is shown concerning safety norms. Safety measures of disasters are planned at the preliminary stages when the construction of a building commences, the occupants of such building are educated on the safety measures including the loss that can be caused by fire (Rowan, 2001). In such a case, materials to address disasters might be inadequate and this might limit handling and thus risking the loss of property and lives through the disasters (Marion & Maingi, 2010).

Oduor (2012) observes that the Education ministry developed suggestions that classrooms should accommodate up to 40 students to minimize overcrowding and to provide a favorable environment for students to learn. Fire calamities are popular in learning institutions locally (MOEST, 2001). Disaster exposure to institutions of learning can be attributed to several factors such as failure to have safety procedures including lack of exit points, lack of firefighting tools, and inadequate disaster handling facilities among others. There's a need to get ready for disaster and minimization risks in educational institutions as a way to raise awareness especially on disasters that cannot easily be predictable such as fire. Preparation for disaster and management of risk empowers educational organizations to mitigate fire-related disasters; this means that there are various strategies that these

institutions can utilize to improve their preparations for disasters.

White (2011) notes that the system of security safety should include plans for emergencies stipulating the procedures and processes that should be followed to respond to cases of emergencies such as fire, terrorism, and violence. The safety of students is of great significance in a learning institution since it guarantees parents and the stakeholders' confidence and trust of a secure environment for students. In their study, Nakitto and Lett (2012) found that most schools in Uganda did not have emergency preparedness plans. This led to suggestions by the Ministry of Education and management of the school to set up safety policies. Ndiang'ui (2006) found that fire exposure to schools in Kenya was inclined by an administrative outline of most schools. They're lacked warning signs, disaster preparations plan, fire drills and first aid tools. The study made a project report on the need to have safety plans to mitigate any form of risks and to counter disasters.

### 3. Methodology

The study employed a mixed-methods approach. involving both quantitative and qualitative techniques amid the same period and with equal weight. The study was carried out in Malindi Sub County, Kilifi County – Kenya with a target population of 19 public secondary schools with an average of 378 student population each and 198 teachers. Guided by Krejcie and Morgan's (1980) sampling tables, a sample size of 6 schools, 6 Headteachers and 59 teachers, and 364 students were used. Krejci and Morgan sampling tables used a formula to come up with recommended sample sizes for given population size. The study subjects were selected using stratified random sampling. This study employed a questionnaire to collect data from students and teachers whereas interview schedules were used among the Headteachers. An observation checklist was used in conjunction with the interviews to collect data on the availability of safety equipment in the schools.

The data collection instruments were piloted with two schools in the neighboring sub-counties in the county. In order to validate the research instruments, the researcher used content validity to check whether the test items were able to answer the researcher's questions (Kombo & Tromp, 2006). The researcher also used expert judgment (supervisor guidance) to improve the validity of the instrument. The estimate

of the reliability of the research instruments was achieved through the test-retest reliability technique. The researcher computed the Cronbach Alpha from the piloted data to ascertain the reliability of the research instrument. The obtained Cronbach's Alpha,  $\alpha=0.785$ . was considered sufficient for the instruments' reliability.

This study generated quantitative and qualitative data. Quantitative data were analyzed using a computer program, Statistical Package for Social Sciences (SPSS) version 23.0. the analysis entailed descriptive statistics and findings presented using tables and figures. Qualitative data were analyzed

thematically using narratives. The findings were presented in quotations and interpreted with comparisons with the earlier existing literature.

## 4. Results and Discussion

### Safety trainings and students' preparedness in emergencies

The teachers were asked whether they had been trained on emergency preparedness. Their responses are shown in Table 1.

**Table 1: Teachers' responses on training**

Response	Teachers	
	F	%
True	3	8.5
False	32	91.4
<b>Total</b>	<b>35</b>	<b>99.9</b>

As shown in Table 1, majority of teachers, that is, 91.4%, felt that they had not been trained on fire preparedness with only 8.5% of teachers indicating that they had undergone training on emergency preparedness.

Through the questionnaires, the teachers were asked to state who trains them on emergency preparedness. Their responses are as shown in Table 2.

**Table 2: Table showing Teachers responses on the personnel who train them on emergency preparedness**

Responses	Frequency	Percent
Fire brigadiers	2	5.7
Community members	1	2.8
Teachers	0	0
Others	32	91.4
Total	35	100

Most teachers, that is 91.4%, indicated that they had not engaged anyone to train them on emergency preparedness while 5.7% of teachers said that training on emergency preparedness was done by fire

brigadiers and 2.8% of teachers said that training on fire disaster preparedness was done by community members, this implies that in most schools training

on emergency preparedness has not been conducted by the right personnel.

Head teachers, teachers and students were asked to state whether training enhances emergency preparedness. Their responses are as shown in Table 3.

**Table 3: Teachers and students’ responses on usefulness of training on emergency preparedness**

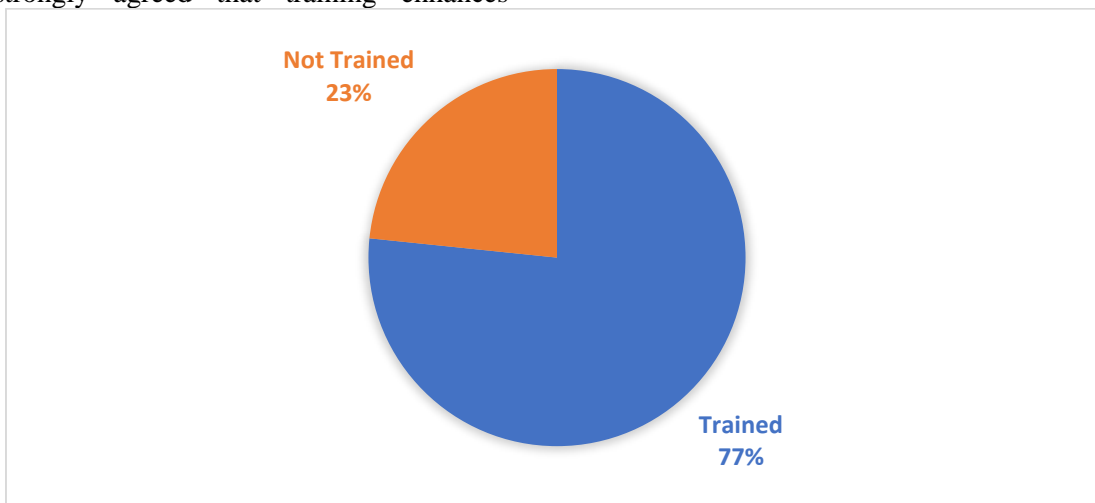
Response	Teachers		Students	
	F	%	F	%
Strongly agree	14	40	263	41.7
Agree	21	60	211	33.3
Neutral	0	0	158	25
<b>Total</b>	35	100	632	100

A significant number of teachers, 40%, strongly agreed that training on emergency preparedness enhances emergency preparedness while majority of teachers, 60% agreed that training on emergency preparedness enhances emergency preparedness. This shows that most teachers acknowledge that training enhances emergency preparedness.

On the other hand, a significant number of students, 41.7% strongly agreed that training enhances

emergency preparedness, 33.3% of students agreed that training enhances emergency preparedness, minority of students, 25% were neutral on whether training enhances fire disaster preparedness.

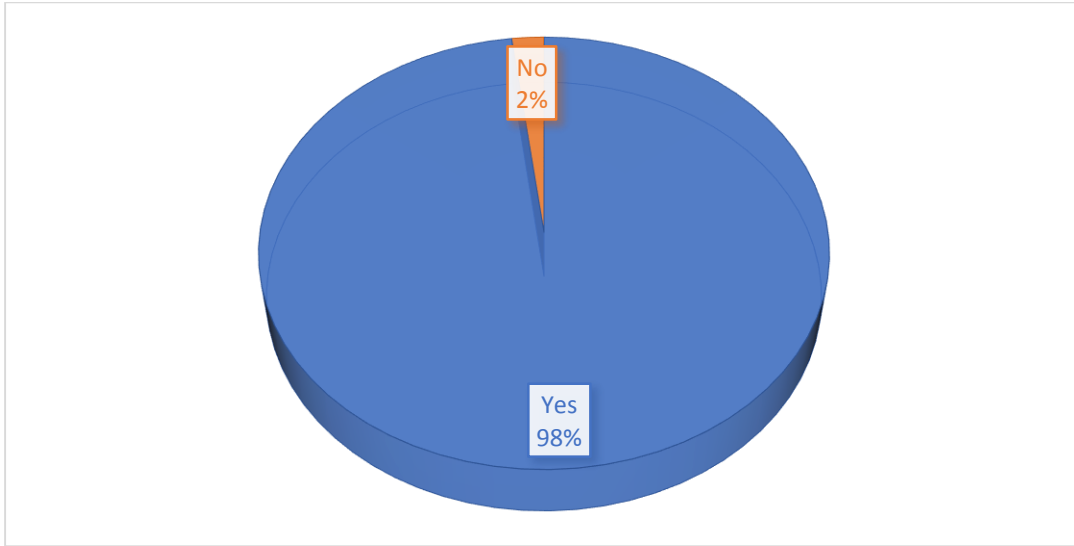
The members of staff and students were asked to indicate whether they had been trained on emergency preparedness. The collected data was analyzed and presented using figures 1 and 2.



**Figure 1: Teachers Trained on Emergency preparedness**

Figure 1 show that the majority of the head teachers (77.8%) said no while 22.2 percent of the head teachers said yes. This implies that while the need to train students on disaster preparedness is a gap, the concern sounds worse when the school principals

haven’t been trained either. It can be argued that only trained head teachers are going to understand the importance of safety and disaster preparedness training and thus plan, organize and execute training for the students.



**Figure 2: Students Trained on Emergency preparedness**

On whether the students had been trained on emergency preparedness, majority of the students (98%) said Yes while 2 percent of the students said No.

***Reasons for Training on Emergency preparedness***

Through the interviews with the head teachers who took part in the study, most said that teachers and students were not trained on emergency preparedness while others reported that teachers are trained on emergency preparedness because fire disaster can occur at any time. The head teachers who said they have not trained their members of staff said that there has never been a need to train them while some said there are no materials to teach them with and others said that there has never been a plan to train them

but now there will be. The teachers reported that the training on emergency preparedness is done because it is required by the ministry of education while the reasons for not training were that there has never been a need to train them (42.9 percent) and that, education officers do not check (17.9 percent). Of the students who participated in the study, 50.5 percent said that there has never been a need to train them, 39.4 percent said that there are no materials to teach them with while 39.4 percent gave other reasons.

The sampled respondents were asked to indicate the status on training of specific school stakeholders on emergency preparedness. The responses were analyzed using descriptive statistic and the results presented using Table 4.

**Table 4: Training of specific school stakeholders on emergency preparedness**

Training on Emergency Preparedness	A		D		SD		TOTAL	
	F	%	F	%	F	%	F	%
Students in the school have been trained to fight fire	15	44.1	0	0.0	19	55.8	34	100
New teaching and non-teaching staff members taken around the primary escape routes of the school	11	32.4	4	11.8	19	55.9	34	100
Some individuals in the school are provided with a personal copy of prepared written instructions on what to do in case of a fire	7	20.6	8	23.5	21	61.8	34	100
Head teacher is trained in fire disaster management	7	20.6	15	44.1	12	35.3	34	100
Teachers are trained in fire disaster management	0	0.0	22	64.7	12	35.3	34	100
Kitchen staffs are trained in fire disaster management	14	41.2	9	26.5	11	32.3	34	100
Lab technicians are trained in fire disaster management	11	32.4	14	41.2	9	26.4	34	100
School drivers are trained in fire disaster management	11	32.4	11	32.4	12	35.3	34	100
School security personnel are trained in fire disaster management	0	0.0	22	64.7	12	36.3	34	100
School nurse is trained in fire disaster management	11	32.4	15	44.1	8	23.5	34	100

The findings in Table 4 showed that students, teachers and the non-teaching staff have not been trained on emergency preparedness. In most schools, new teaching and non-teaching staff members were not taken around the primary escape routes of the school and most schools did not provide new individuals in the school with a personal copy of prepared written instructions on what to do in case of a fire. Failure to train the teachers, non-teaching staffs and students on emergency preparedness shows fire disaster unpreparedness.

**Availability of safety equipment and students' preparedness in emergencies**

The second objective of the study was to establish the influence of availability of safety equipment on students' preparedness in emergencies in public boarding secondary schools in Malindi sub-county. The data collected on the objective was analyzed under various indicators.

The headteachers were asked about the adequacy of specific Safety equipment and their responses are recorded in Table 5.



**Table 5: Adequacy of Specific Safety Equipment**

Safety equipment	Adequate		Inadequate		Very Inadequate		TOTAL	
	F	%	F	%	F	%	F	%
Fire hydrants	0	0	23	67.65	11	32.35	34	100
Fire extinguishers	0	0	23	67.65	11	32.35	34	100
Fire resistive material	0	0	23	67.65	11	32.35	34	100
Fire exits	23	67.65	8	23.53	8.82	11.1	34	100
Fire protection devices	6	17.65	19	55.88	9	26.47	34	100
Fire blankets	12	35.3	7	20.58	15	44.12	34	100
Fire escape ladder	0	0	15	44.12	19	55.88	34	100
Heat/smoke detectors	4	11.76	7	20.58	23	67.64	34	100
Fire alarm	7	20.59	10	29.41	17	50	34	100
Fire hose and nozzles	0	0	8	23.53	26	76.47	34	100
Fire fighters' outfits	4	11.76	7	20.58	23	67.66	34	100
Fire sand bucket	11	32.35	0	0	23	67.65	34	100
Breathing apparatus	7	20.58	0	0	27	79.42	34	100
Reliable water supply	22	64.7	2	5.88	2	5.88	34	100

As shown in Table 5, most headteachers indicated that specific Safety equipment was not adequate. The most adequate Safety equipment was reliable water supply and fire exits. The others were mainly inadequate or very inadequate. This was an indication that most schools are unprepared for

disasters when it comes to adequate Safety equipment.

The teachers were asked to tell when first aid supplies were supplied, their responses are as shown in Tables 6 and 7.

**Table 6: Teachers' responses on supply of first aid supplies**

Response	Frequency	Percentage
Termly	4	15.4
Yearly	13	50
After a disaster	9	34.6
Total	26	100

As referenced in Table 6, 15.4% of the teachers indicated that first aid supplies were availed every term, while 50% of teachers indicated that first aid supplies were provided yearly. A significant number, 34.6% indicated that they were supplied after a

disaster. This implies that some schools may not adequately offer first aid in case of fire disaster due to a lack of first aid supplies, this shows a lack of fire safety preparedness.

**Table 7: Teachers responses on adequacy of first aid supplies**

Response	Frequency	Percentage
Yes	14	40
No	21	60
Total	35	100

Table 7 shows that majority of teachers 60% indicated that first aid supplies were inadequate while 21% of teachers said that first aid supplies were adequate. This report is in line with observation schedule where first aid supplies were found to be inadequate in most schools. This implies that the majority of the schools cannot adequately offer first aid services in case of fire emergency since the supplies are inadequate.

In order to establish whether school buildings are constructed in relation to policy provisions pertaining to fire disaster risk reduction, several indicators were used as follows.

The teachers, teachers, and students were asked to indicate their level of agreement in relation to different areas of school buildings and their fire safety. The responses are summarized in Tables 8, 9, 10, 11, and 12.

**Table 8: Teachers' responses on the area of school buildings and fire safety**

School buildings		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
Windows not Grilled	F	0	23	0	9	3	35
	%		65.7	0	25.7	8.5	100
Halls have emergency exits	F	15	9	2	6	3	35
	%	42.9	25.7	5.6	17.1	8.5	100
Doors open outwards	F	9	9	2	6	9	35
	%	25.7	25.7	5.6	17.1	25.7	100
Assembly points well labeled	F	9	6	3	5	12	35
	%	25.7	17.1	8.5	14.3	34.3	100

As reflected in the Table 8, majority of teachers (65.7%) agreed windows were not grilled and 42.9% strongly agreed that halls have emergency exits, this concurs with observation schedule report where most windows were not grilled, doors were found to be

opening outwards and emergency exits were available in most buildings. All these indicate that schools are well prepared for fire disasters. However, 25.7% of teachers indicated doors were designed to

lock in occupants and 34.3% indicated that assembly points are not well labeled.

**Table 9: Students responses on school buildings**

Area of school buildings		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Exits are well Labeled	f	26	104	26	238	238
	%	4	16.5	4	37.7	37.7
Emergency door well labeled	f	26	52	0	238	316
	%	4	8.4	0	37.7	50
Assembly points well labeled	f	26	52	0	238	316
	%	4	8.4	0	37.7	50
Exits are clear of Obstructions	f	26	79	52	238	238
	%	4	12.5	8.4	37.7	37.7

According to Table 9, 50% of students indicated that emergency doors and fire assembly points were not well labeled, a report which concurs with the observation schedule where fire assembly points were not well labeled and direction post was not available in most schools, also 37.7% of students

reported that fire exits are not well labeled and were not clear of obstructions at all times. The implication is that even though there are fire exits in the buildings, in case of fire disaster people in school may still suffer because they cannot access them. This shows a lack of preparedness.

**Table 10: Students' responses on presence of emergency exits in buildings**

Buildings		SA	A	N	D	SD
Classes	F	211	105	211	52	53
	%	33	17	33	8.4	8.6
Dormitories	F	158	290	26	105	53
	%	25	46	4	17	8
Halls	F	131	238	79	184	0o
	%	20.7	37.7	12.5	29.1	0
Laboratories	F	131	343	0	158	0
	%	20.7	54.3	0	25	0

SA=strongly agree, A=Agree, N=neutral, D=disagree, SD=strongly disagree

As reflected in Table 10, 54.3% of students reported that laboratories had emergency exits, 46% indicated that dormitories had emergency exits and 37.7% and

33% stated that halls and classes respectively had emergency exits. This shows high level of fire safety preparedness in majority of the school.

**Table 11: Students responses on how doors in school buildings open**

Doors	Frequency	Percentage
Open outwards	421	67
Open inwards	211	33
Total	632	100

As reflected in Table 11, 67% of students indicated that doors in school buildings open outwards this implies that occupants can easily escape in case of fire emergency although a significant number (33%)

indicated that doors in school buildings open inwards which shows that there are low levels of fire preparedness.

**Table 12: Students responses on whether exit doors are always locked**

Exit doors locked	Frequency	Percentage
Yes	211	33
No	421	67
Total	632	100

Table 12 indicates that, majority of students (67%) reported that exit doors are always locked; while few students (33%) reported that exit doors were not always locked.

## Discussion

The findings that 91.4% of the teachers had not been trained on emergency preparedness implies that most schools are not well prepared for fire emergencies since they are not trained on how to handle fire emergencies, the findings also concur with Mwangi (2014) that most members of staff and all students have not been trained in fire disaster risk reduction.

Through interviews with the headteachers, there was an expression that several challenges faced training of the school community on safety preparedness. The headteachers noted that budgets are much constrained and thus making it difficult to invest in such training. One principal noted that for about two years now, they had not carried out any training on safety preparedness for all staff and students in his schools.

Most teachers that is 91.4% indicated that they had not engaged anyone to train them on emergency preparedness. In comparison to the findings from the interviews with the headteachers, the majority of them stated that they had been trained on fire preparedness by fire brigadiers, some saying that they had attended trainings on emergency preparedness done by community members. Apparently, some headteachers revealed that they had not engaged anyone to train them on emergency preparedness. Their responses concur with that of teachers that most schools have not engaged the right personnel to train them on emergency preparedness this implies a lack of emergency preparedness in most schools. The implication for this is the poor preparedness in safety and disaster. In accordance with the posting of Hodes (2016), this calls for

empowering the school's staff to protect the students in all aspects through adopting, using, and enforcing the safety strategic plans.

A significant number of students, 41.7% strongly agreed that training enhances emergency preparedness, 33.3% of students agreed that training enhances emergency preparedness, a minority of students, 25% were neutral on whether training enhances fire disaster preparedness showing that they did not understand the importance of training in response to fire disaster preparedness. This implies that the causes of unpreparedness in disaster emergencies emanate from a lack of information on the importance of training.

The majority of the students (98%) said Yes while 2 percent of the students said No. This implies that the concern among most school headships is keen on ensuring that the students are safe by offering the training.

Interview results indicate that majority of the students indicated that there has never been a need to train them. This shows that school managers have not yet taken the issue of emergency preparedness to the teachers' and students' levels. Given that most of the fire disasters in schools are in the dormitories and at night, it would only be prudent to train the students on emergency preparedness. Failure to do that is a sure sign of fire disaster unpreparedness.

A majority of teachers 60% indicated that first aid supplies were inadequate. In comparison to these findings, Ians (2010) finds that disaster preparedness was not a priority to most schools in India due to the inadequacy of safety equipment. Most schools were concerned about the number of students they admitted, little effort are shown concerning safety norms. Safety measures of disasters are planned at the preliminary stages when the construction of a building commences by equipping it.

A majority of teachers (65.7%) agreed windows were not grilled and 42.9% strongly agreed that halls have emergency exits. This means that schools are not fully prepared in case of fire disaster. A study carried out by Gichuru (2013) on fire safety in public secondary schools in Nyeri Central and another one by Makhanu (2009), found that fire and safety departments in most schools do not exist. All these studies as is the case in this study show that most public secondary schools do not have well labeled assembly points. This means that the students do not know where to go in case of a fire disaster.

A majority of students (67%) reported that exit doors are always locked. This implies that in case of a fire disaster, the occupants cannot easily escape since exit doors are not easily accessible which shows that most schools are not well prepared. This is noted that with regard to the key concern of schools as learning facilities, less security concerns are emphasized during the erection of such facilities (Hodes, 2016). Except for laboratories that are designed on specific safety requirements, other structures such as classrooms and offices miss out on emphasis of

safety checks as important for the overall mission during construction. Integration of these many preferences for an educational institution is a tough task that is missed out even by professional architects.

## 5. Conclusion and Recommendations

The study concludes that schools' safety training among students in public boarding secondary schools in Malindi sub-county is inadequate hence contributing to emergency unpreparedness. The Safety equipment available in most schools is fire extinguishers, fire alarms, and fire exits. The other safety equipment is very inadequate, and the headteachers proposed that they should be added.

The study recommends that the Ministry of education implement the existing policy framework on school safety prepared. This will ensure that the various schools allocate resources towards the fulfillment of the requirement.

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