



doi 10.5281/zenodo.6849844

Vol. 04 Issue 09 Sept - 2021

Manuscript ID: #0491

INFLUENCE OF PRINCIPALS' INVOLVEMENT IN STAFF AWARENESS SAFETY STRATEGIES ON DISASTER MANAGEMENT IN PUBLIC SECONDARY SCHOOLS IN NYERI COUNTY, KENYA

Hawa Omari

Arts School of Education, Maasai Mara University. P.O Box 861-20500, Narok, hawaomark@yahoo.com

Dr. Susan Chepkonga

*Department of Educational Administration and Planning, University of Nairobi P.O Box 30197-00100, Nairobi, Kenya
susanyego.sc@gmail.com + 254722647351*

Dr. Justus Gori

School of Education, Garissa University. P.O Box P. O. Box 1801 - 70100, Garissa, mochamagori@gmail.com

Dr. James Mwaura

School of Education, Maasai Mara University. P.O Box 861-20500, Narok, jimo.thinwa@gmail.com

Corresponding author: *Dr. Susan Chepkonga
Email: susanyego.sc@gmail.com

ABSTRACT

It is vital that Kenya is prepared to face disaster management in public secondary school. This will help to minimize the impact of disasters on schools. The objective of the study included to: assess the influence of staff awareness of safety strategies on disaster management in public secondary schools in Nyeri County, Kenya. The study was anchored on the Maslow hierarchy of needs theory of 1943 and the Chaos Theory propounded by Douglas Kiel of 2003. The researcher used the descriptive survey research design. The study targeted 208 principals, 1040 heads of departments in 208 secondary schools in Nyeri County. 15% was used to select 21 principals and 21 schools for interviewing and observation checklist respectively. To validate research instruments, a pilot study was carried in 21 schools (10%) of the targeted 208 Schools. Reliability of the research instruments was done using the test-retest method. A sample of 30% for heads of departments and 10% for principals was considered effective to the study. A stratified sampling method and a mixed-method approach were used. Qualitative data was collected from the principals using interview schedule while Quantitative data were collected using questionnaires from heads of departments and the checklist was used. The study established that staff awareness of safety was significant. The findings showed a significant association between principals' staff awareness and disaster management ($p < .05$). The study recommended that sensitization on disaster management ought to be done more frequently to ensure teachers are well aware of the importance of preventing disasters in order to promote learning and save lives.

KEYWORDS

Principals' Involvement, Staff Awareness Safety Strategies, Disaster Management

INTRODUCTION

Disaster is defined as a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which surpasses the capacity of the affected community or society to survive based on its own resources (Bhat, Sidrat, Geelani and Irfana 2017). Disaster management is a planned, deliberate, organized, directed and visualized effort to mitigate, prepare for, respond to and recover from a disaster or emergency situation or its effect. Disaster preparedness involves an integrated combination of planning, training personnel qualification, drills, acquisition of equipment and standard certification (Fakhruddin, 2016).

2. Background of the Study

In recent past, schools have become unsafe grounds for both students and teachers alike and sometimes their properties contrary to the expectations (Udali, 2020). In the United States of America, the government in an effort to create a safe learning environment has established a SchoolSafety.gov which is a home to a broad range of resources to help school communities, students, and staff prepare for the start of the school year in a safe environment after covid-19 opening of schools (Playbook, 2021). The initiative was meant to assist users in evaluating their respective school's safety posture across ten foundational elements of school safety. The initiative was meant to build awareness within all the school communities to promote vigilance and build capacity to respond to disasters in schools in America (Playbook, 2021). In South Africa, research has shown that school learners are using computers and cell phones to connect to the internet with little or no monitoring from either parents or teachers. The schools are not proactively taking any preventative measures to protect their learners from cyber dangers. Against this background research found it vitally important that the national department of education, through school institutions, should pioneer online safety awareness among staff and students.

In Kenya, safety issues have been addressed since the attainment of independence in 1963. In particular, safety concerns have been well outlined in the Education Act (1968-Chapter 211 - Laws of Kenya, Revised, 1980). The Act stipulates that "where the application is made for the registration of an unaided school, the minister shall cause the school to be provisionally registered for 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" (Republic of Kenya 2013). The Ministry of Public Works building regulations have been given mandate to provide suitable site plans and latter should be adhered to. In case any facility has not been built in conformity with existing regulation, it should be modified and the concerned school management should also adhere strictly to the set building regulations (Republic of Kenya 2013). In this regard, the Directorate of Quality Assurance and Standards of the Ministry of Education (MOE) are required to inspect a school in accordance to compliance with safety standards and guidelines (Republic of Kenya 2013). The Government of Kenya has committed itself to improving the standards of education at all levels (Republic of Kenya, 2008).

3. Statement of the Problem

Kenyan government has tried to put safety and security situation in schools under control by providing safety and security guidelines. Furthermore, it has formulated a National Policy on Disaster Management to institutionalize mechanisms for addressing disasters; however, the objective has not been achieved. In various legislative documents the National Disaster Management Policy Legal Framework of 2004 is available. Despite formation of several educational committees, task forces, and commissions to address multiple challenges affecting our education sector and specifically those that are related to safety at schools, students and teachers are still exposed to work related injuries and poor working conditions that emanate from unsafe conditions. In the recent past, there have been numerous reports on violence, fire outbreaks, destruction of property and student loss of lives across secondary schools in the Nyeri County, Kenya. Many incidences of school safety have triggered a sense of fear among students, parents, leaders and the community. This brings about the need to look for better ways of addressing the issue of student safety in a comprehensive manner (Induli, 2020).

4. Research Hypothesis

This study was guided by the following hypothesis:

HO₁ There is no significant relationship between principals' staff awareness safety strategies and disaster management in public secondary schools in Nyeri County, Kenya.

5. Review of Related Literature

School safety is a significant human concern that each school and community should take seriously and target to achieve based on the National Clearing House of Education facilities. Moreover, it is a moral concern and schools can be held responsible in case they do not make a substantial effort in provision of a safe and secure school enrolment (Alice, Joan, and Cheruto, 2016). Overall, disaster or emergency management entails all activities, measures and programmes which can be applied before, during and after a disaster with an aim of avoiding, reducing the impact or recovering from disaster losses (Chepkonga, 2014). Lindell (2013) described emergency management as the range of activities intended to maintain and overcome disaster and emergency situations. Also to provide a framework especially for helping those who are at risk to avoid or recover from the impact of the disaster.

5.1 Staff Awareness of Safety Strategies and Disaster Management

In the context of disaster risk management, disaster awareness of staff involves categorizing activities to be undertaken for successful management of emergencies. For instance, schools with proper disaster awareness controls the disaster risks very efficiently (Solinska-Nowak, Magnuszewski, Curl, French, Keating, Mochizuki, and Jarzabek, 2018). Based on information from (UNICEF 2009), nearly 4,000 schools were devastated and also roughly 600,000 children were significantly affected. In Vietnam, the Ministry of Education and Training (MOET) (2011) in Vietnam has noted that in case of climate change, education sector was highly vulnerable because it contains huge masses of people, that is, accounting for nearly one quarter of the country's population. An estimated 5,120 schools, most of them located in Central Vietnam were destroyed by Typhoon Xangsane (2006) (CCFSC 2010). The devastated school property, facilities and equipment are the most important assets to children for access to education. More important, mal-function of disaster management and lack of awareness as well as appropriate knowledge on disaster risk reduction even bring more

damages to the school students. For examples, during Tsunami 2004, it is reported that the number of fatalities is more than 60,000 children and tremendous economic losses.

According to SEEDS India (2008) this number of deaths and losses was mainly due to the failure of ineffective management on disaster preparedness and risk reduction measures. Disaster awareness is defined as “having relevant knowledge and skills on disaster management which can help one identifies and mitigates disaster occurrences”. According to Wanjala and Onyango (2018), disaster awareness can be integrated in schools and institutions through various approaches including clearly posting safety rules, installation of firefighting apparatus, creation of evacuation exits and well buildings maintenance (Wanjala & Onyango, 2018). It can also be enhanced through several mediums such as songs, print and electronic media, intervention learning as well as incorporation of disaster risk education in science subjects. Recently, a body of knowledge regarding effective school safety practice is growing significantly Shaw (2012). Additionally, a research on international experiences and actions in enhancing safety in school have been published. Also, tools have been designed and developed for effective practice based on the data collected, while some training materials such as manuals and guides have been written (Bryman, 2016).

Omari (2011) posits that safety awareness will always come from staff and students in schools. If they are trained to look for trouble spots, irregularities, and to report them, then, because of their daily familiarity with their holdings, systems and environment, they will be the first to notice anything unusual, problematic or suspicious (Fraser, 2007). Staff and students should be given responsibilities for specific areas and encouraged to work as a team to protect them. Nyakundi, (2012) stated that staff should be trained in all the areas and drilled at regular intervals. Specifically, staff and student awareness programs should include the following: the formation of departmental or section teams, with appointed team leader; visits and talks with fire prevention officers as well as other officers; training and drills in following the plan, using fire extinguishers and administering first aid using some kits; a certain amount of internal publicity to keep awareness high, for example, posters placed in strategic areas such as dining areas, elevators and given as handouts to new employees and students, articles of publications, and refresher training programme; and teaching safety awareness as part of the curriculum in schools right from primary school level.

6. Research Methodology

The study targeted 208 principals who were in 208 public secondary schools and 1040 heads of departments in public secondary schools in Nyeri County, Kenya as at December 2015 (MoE, 2015). The researcher used stratified sampling where the population was characterized into 8 strata based on the number of sub-counties in Nyeri County so as to ensure equal representation. From each stratum, 30% of the schools were chosen through systematic random sampling. This was because some sub-counties had more schools than others and equal representation was necessary. *By use of systematic random sampling, every 3rd school was sampled to get 62 Schools. This method ensured that there was an equal opportunity for any member of the population to be studied (Gay, Mills & Airasian, 2006). This ensures validity of the data. The researcher further used 30% of the target population of the HoDs (1040) for study. Using 30% of the HoDs the researcher sampled 310 HoDs as respondents for this work. The researcher selected 21 principals for interviewing in this study who formed 10% of the target population. Based on a study by*

Mugenda and Mugenda (2003), a sample size of 10% of the target population is considered adequate for descriptive study. *Sampling saves on time, money and allows generalization to be made for the entire population. Table 1 shows the sample according to the strata. Out of 208 principals, the researcher sampled 21 principals and 310 HODs. The researcher observed and used observation checklists in the schools where the principals were interviewed.*

7. Validity and Reliability of Instruments

Reliability according to Wallen and Fraenkel (2013). is the level of internal consistency or stability over time, of a measuring instrument. (Kothari, 2011). The reliability of the instruments was determined using test-retest technique. The Pearson's product-moment correlation (r) coefficient formula was used to compute the reliability coefficient (Best & Kahn, 2011).

$$r = \frac{\sum(x-x)(y-y)}{\sqrt{[\sum(x-x)^2][\sum(y-y)^2]}}$$

x=the score of the independent variable

Y=the score of dependent variable

X=the mean score for independent

Y=the mean score for dependent variable

Source: Elifson, Runyon and Haber (1990)

The researcher employed Cronbach's alpha index to assess the questions reliability. According to Bryman (2016) and Gay, Mills, and Airasian (2006), calculation of correlation yields a figure called coefficient that varies between 0 (no correlation and therefore no internal consistency) and 1 (perfect correlation and therefore complete internal consistency). Then a result of ≥ 0.80 reflects acceptable level of internal reliability although many writers work with a lower figure that goes to .70. The figure that was arrived at after testing the questions based on Cronbach's Alpha gave the degree to which the questions were reliable. The reliability coefficient/index finding was 0.78, greater than 0.7, which is universally accepted as reliable; otherwise the instruments would have needed to be revised (Cortina, 1993; Kothari, 2011). Reliability of interview schedules was checked by highly restructuring interview questions at the time of design and consistently (using same language and gestures) using similar questions to different interviewees.

Validation was done by subject experts. Pilot study results were also used to detect any other weaknesses. The instruments were then modified accordingly. Again, in order to ensure validity of questionnaires, interview and observation, the instruments were designed as per the aim of the work in order to capture the required information. Thus the researcher requested her supervisors, departmental lecturers and professionals in this field from the ministry of education to act as judges to help in the determination of the extent to which each item in the questionnaire would measure the variable it was designed to before they were administered. Their recommendations helped to enhance the quality, structures and content of the instruments.

8. Presentation of Data Analysis and interpretation of Hypothesis

Data from questionnaires were analyzed using descriptive and inferential statistics. Descriptive analysis involved the use percentages, means and standard deviations to show the relationships between the independent and dependent variables of the study. Data was analysed using the responses from principals and Heads of departments. Questionnaires were arranged in order, from one to the last respondent according to the number that was returned from the filled questionnaires.

All the items (questions) were given value based on numbers 1-4 which stand for strongly agree to strongly disagree. All the values (numbers 1-4) for each question in a questionnaire were prepared and entered into SPSS software for analysis. For nominal or categorical data (gender), for example, female or male and school category, the researcher coded them by numbers 1 or 2.

The researcher used the *Pearson's Correlation analysis method to explore relationship between the dependent and independent variables as stated in the research hypotheses*. This involved the use of means and standard deviations, .05 alpha levels, and degrees of freedom (df). Alpha (.05) is the probability of making type 1 error and this means that there is 5% chance of being wrong if the null is rejected. The p-value for the Pearson Moment Correlation was considered statistically significant at 0.05 level.

Qualitative data was analyzed thematically. The analysis focused on all the individuals' responses to each question. The data was organized by question across all respondents and their answers. Once this was done, the researcher looked for consistencies, similarities and differences for the drawing of generalizations and conclusions. Like quantitatively analyzed data, results were presented using tables. Qualitative data was gathered after interviewing the principals and recording their verbatim from the 10 interview question items. Data was analyzed by comparing responses got from different interviewees' verbatim. Using this method, the researcher had all the answers given by each respondent for each question then comparison was done to get out similarities and differences. Data from observation checklist was analysed by looking at the percentages of availability of safety procedures and processes in relation to the number of schools that were observed.

9. Results and Discussions

In this research, questionnaires were administered to 290 participants to react to items which were measuring various variables involved in the main theme of the relationship between principals' administrative strategies influencing disaster management in public secondary schools in Nyeri County, Kenya. The data collected were scored, coded and analysis done using the SPSS statistical data-analysis package. Reliability of questionnaire items that were used was estimated using Cronbach's alpha and found to be .860. Analysis of data collected quantitatively was done by carrying out Pearson's correlation analysis. The hypotheses were tested at an alpha level of .05, df of 288 (290-2) while *p* value, and *r* value were used for the establishment of relationships among variables that were used in this study. Study variables, means, standard deviations, and *df* are shown in Table 1.

Interviewing of 21 principals was also done using 8 structured questions and data collected was analyzed using focus by question analysis method. Reliability of interviews was ascertained by highly structuring of the interview with the same format and sequence of words and questions for each interviewee. Results from Pearson's correlation analysis and thematic were presented using tables before interpretation of results was done. Study variables, means, standard deviations, and *df* are shown in Table 1.

Table 1

Study Variables' Means and Standard Deviations Principals' Administrative Strategies Influencing Disaster Management in Public Secondary Schools in Nyeri County, Kenya

Statement	Mean	Std. Deviation
Principals' staff awareness safety strategies	1.61	0.37
Principals' adherence to infrastructure standards	1.81	0.33
Principals staff training on safety strategies	1.57	0.53
Principals' policy implementation of safety strategies	1.56	0.46
Principals' monitoring and evaluation of safety standards	1.63	0.41
Disaster management	1.65	0.29

The findings in Table 1 show that on Principals' staff awareness safety strategies (M=1.61, SD=0.37), Principals' adherence to infrastructure standards (M=1.81, SD=0.33), Principals staff training on safety strategies(M=1.57, SD=0.53), Principals' policy implementation of safety strategies (M=1.56,SD=0.46) Principals' monitoring and evaluation of safety standards(M=1.63,SD=0.41) and the dependent variable disaster management (M=1.65,SD=0.29) respectively.

9.1 Principals' Staff Awareness Safety Strategies and Disaster Management

The first objective of this study was to investigate whether there was a relationship between principals' staff awareness safety strategies and disaster management in public secondary schools in Nyeri County. Table 2 shows the Heads of Department responses on principals' staff awareness safety strategies.

Table 2

Heads of departments responses on principals' staff awareness safety strategies and disaster management

Statement	Strongly Agree		Agree		Disagree		Strongly Disagree		Total	
	F	%	F	%	F	%	F	%	F	%
1 I am not aware of the safety security policy and procedures found in this school.	79	27.3	133	46.0	35	12.1	42	14.5	289	100
2 New teachers and students are inducted on the safety security policy and procedures in school	55	19.0	83	28.7	102	35.3	49	17.0	290	100
3 Training on safety issues increases my safety awareness	82	28.4	73	25.3	55	19.0	79	27.3	289	100
4 Teachers and students have no idea on how safety equipment works	71	24.6	66	22.8	74	25.6	78	27.0	289	100
5 I am not aware of the Ministry of Education's safety standards.	66	22.8	62	21.5	77	26.6	84	29.1	289	100
6 My school has a copy of the Ministry of Education safety	80	27.7	51	17.6	77	26.6	81	28.0	289	100

standards manual.							
7	My school has a safety committee	68	68	67	86	29.8	289
		23.5	23.5	23.2			100
8	My school conducts students' roll calls regularly	86	74	56	73	25.3	289
		29.8	25.6	19.4			100

The findings in Table 2 shows that on principals' staff awareness safety strategies a majority 133 (46%) agree they are not aware of safety standards while 79 (27.3%) strongly agree. On new teachers and students' induction on safety standards, the majority 102 (35.3%) disagree that new teachers and students are inducted while 83 (28.7%) agree. On training on safety issues increases my safety awareness majority 82 (28.4%) strongly agree while 79 (27.3%) strongly disagree. Teachers have no idea on how safety equipment works majority 78 (27%) strongly disagree while 74 (25.6%). On awareness of the Ministry of Education, safety standards majority 84 (29.1%) strongly disagree while 77 (26.6%) disagree. Only one school had a copy of the Ministry of Education safety standards manual majority 81 (28%) strongly disagree while 80 (27.7%) strongly agree. 'On my school has a safety committee' majority 29.8% strongly disagree while 23.5% strongly agree and agree respectively. 'On whether my school conducts students' roll calls regularly' 86 (29.8%) strongly agree while 74 (25.6%) agree. According to the observation checklist the researcher made, it was observed that 17 (80%) of safety documents were available. The researcher concluded that there is a positive association between availability of documents of safety and disaster management in public secondary schools in Nyeri County. According to Ng'ang'a (2013) Nyeri County elucidated low levels of awareness of safety standards among the teachers in public high schools. Just as they found in their studies, this study found that even though there was an apparent safety standards' adherence in some schools, the teachers were not incorporated in raising awareness to the students about safety standards. The study noted that some Heads of Departments had never heard or even seen the manual based on the data collected. With this lack of awareness among teachers, the trend is worrying because they are the personnel expected to enforce the safety standards and to create awareness among the students. The findings are in tandem with the results of Muigai (2011) and Ng'ang'a (2013) that "the knowledge of the Ministry of Education safety guidelines among the institutional teacher was poor."

To test the relationship, a Pearson r Product Moment correlation analysis was done to determine staff awareness of safety strategies ($M=1.61, SD=0.37$) and disaster management ($M=1.65, SD=0.29$) as indicated in Table 1. The findings from correlation analysis are displayed in Table 3 which shows the correlation matrix for staff awareness of safety strategies and disaster management. The computation produced a p -value of .000 and an r -value of .400 at a df of 287 at an alpha level of .05. The results of the computation are shown in Table 10. With a Pearson's correlation value of .400, it means that the relationship was moderate but significant. The results also indicated that a p -value of .000 was less than the chosen alpha level of .05 that was used to determine the rejection or retention of the null hypothesis in this study. This means that the null hypothesis was rejected and the Alternate hypothesis accepted thus "There is a significant relationship between principals' staff awareness of safety strategies and disaster management in public secondary schools in Nyeri County. There is a strong and significant relationship between principals' staff awareness of safety strategies and disaster management ($r(289) = .400, p < .05$). The two variables were moderately correlated. There is no significant relationship between principals' staff awareness of safety strategies and disaster

management. This means principals' staff awareness of safety strategies influences disaster management. The fact that the relationship was found to be positive meant that the more principals' staff awareness of safety strategies were done in secondary schools, the better the disaster management.

The results from this study see (Table 3) show that the principals had a very strong opinion that staff awareness safety strategies was useful in ensuring disaster management in secondary schools. The principals noticed significant changes of decrease in disasters since staff awareness safety strategies were conducted in their respective secondary schools. In the immediate discussion, respondents attested that disasters before introduction staff awareness safety strategies were higher compared to after introduction of the same, hence it can further be explained that the difference was significant, and that the introduction of staff awareness safety strategies were responsible for the observed difference. It further indicates that reduction in disasters in secondary schools were positively supported by presence of staff awareness safety strategies since schools had security policy awareness, students roll cards, and school has a safety committee, teachers' idea on safety equipment works, awareness on the Ministry of Education safety standards respectively. Principals' staff awareness safety strategies are among the main indicators of disaster management in secondary schools, though it can be explained that there existed other factors that influenced disaster management.

The correlation findings are summarized in Table 3 which shows the correlation matrix between principals' staff awareness of safety strategies and disaster management.

Table 3
Correlation matrix between principals' staff awareness of safety strategies and disaster management

Variables		principals staff awareness of safety strategies	Disaster management
principals staff awareness safety strategies	Pearson Correlation	1	.400*
	Sig. (2-tailed)		.000
	N	290	290
Disaster management	Pearson Correlation	.400*	1
	Sig. (2-tailed)	.000	
	N	290	290

*. $p < .05$ (2-tailed); $df = 288$; $\alpha = 0.05$

The null hypothesis H01 which states that there is no significant relationship between staff awareness of safety strategies and disaster management in public secondary schools in Nyeri County was rejected at $p < 0.05$. This signifies that the less safety training takes place the more disaster is done. These results concur with studies carried out by (Wafaa A. El-Hosany1, Nadia Mohamed EL-Sayed Ghonem, 2017) who found out that Employees and teaching staff had significantly higher knowledge about evacuation process, fire protection, and safe floors, classrooms and laboratories in the faculty compared to students ($p < 0.05$) The students had significantly higher knowledge about CPR and first aids and public system to make emergency announcements during disaster management in the faculty compared to employees and teaching staff. The results of the study were concurrent with the findings of Wanjala and Onyango (2018) who also sought to find out the extent of planning for disaster awareness in secondary schools in the county. They found out that 62.4% of the principals indicated that disaster awareness and preparedness workshops and seminars have been organized for

school managers and teachers. However, 81.4% of the teachers indicated that they have never attended these workshops and seminars on disaster awareness and preparedness and the few who attended have only done so on rare occasions. This means that disaster awareness and preparedness workshops and seminars have not been given priority or that the dissemination of information on these workshops and seminars to schools is inadequate. It also means that the level of disaster awareness and preparedness among the teachers in these schools is inadequate and they may not be able to effectively cope with those disasters that may affect their schools. Also, 66.75% of the principals indicated that there is no provision of in-service or refresher courses on safety assessment for both principals and teachers in Homa Bay County (Kirimi, 2014). This is a further indication that levels of disaster awareness and preparedness among principals and teachers might be inadequate due to the lack of adequate sensitization and brainstorming. Finally, the research also sought to establish whether students have been sensitized at all to the dangers of man-made disasters such as fires 81.05% of the students were aware of the dangers of fire.

On the same variable, the principals were interviewed on staff awareness of safety strategies and disaster management and their responses were as follows:

Principal No. 1:

"Upon arrival at the school, I was oriented and introduced to safety strategies that can effectively prevent disasters in school such as where to assemble in case of fire outbreak, how to use fire extinguishers and where they are placed in each block and where the safety exits are located."

Principal No 2, 4, 5:

"I was never introduced to any safety strategies of preventing or handling disasters in school. My school does not have any policies to induct new principals on disaster management and moreover there are no fire extinguishers, rams and appropriate stairs for the physically challenged students"

Principal No 3:

"When I reported to this school I was introduced to safety strategies however the appliances were not in good condition hence not usable."

Principal No 16:

"During briefings and staff meetings teachers are made aware of safety strategies on disaster management and specifically how to prevent and control disasters in school"

The responses from the principals on the variable principals' safety awareness strategies and disaster management indicated that 67.5% of the principals agreed that there is provision of in-service or refresher courses on safety assessment for both principals and teachers in Nyeri County. These results concur with the Ministry of Education safety manual 2008 which stipulates that staff awareness should be conducted on safety issues.

10. CONCLUSIONS

There was evidence that staff awareness safety standards were not being implemented in secondary schools in Nyeri County. Evidence showed that the more principals are not involved in safety awareness of safety strategies the more disaster occur. These conclusions indicate that there has been remarkably little attention devoted to disaster management in schools which exposes the school community members to disasters some of which can be averted.

11. Recommendations

Disaster management courses should be introduced and made mandatory for each teacher to attend per term. Sensitization on disaster management should be done more frequently to ensure teachers are well aware of the importance of preventing disasters in order to promote learning and save lives. The principals should foster staff awareness on disaster management with the teachers to promote prompt reaction in terms of mitigating disasters.

12. References

- Adelekan, I., Johnson, C., Manda, M., Matyas, D., Mberu, B., Parnell, S., ... & Vivekananda, J. (2015). Disaster risk and its reduction: An agenda for urban Africa. *International development planning review*, 37(1), 33-43.
- Alice, L., Joan, J., & Cheruto, K. L. (2016). An Evaluation of School Health Promoting Programmes and the Implementation of Child Friendly Schools Initiative in Primary Schools in Kenya. *American Journal of Educational Research*, 4(13), 954-960.
- Bhat, A. B., Sidrat-Ul-Muntaha Anees, S. N. Z., Geelani, N., & Irfana Jan, B. A. Z. (2017). A Study on Disaster Awareness And Preparedness Among College Students In District Ganderball of Kashmir Valley. *IJSART*, 312.
- Bryman, A. (2016). *Social research methods*. New York: Oxford University Press.
- Chepkonga, S. (2014). An Evaluation of the Management of Work Place Safety of Auxiliary Staff and Their Performance in Secondary Schools in Nandi County.
- Dube, A. K., Ibrahim, A. H., & Orodho, J. A. (2016). Disaster management and risk reduction strategies in public secondary schools in Mandera County, Kenya. *International Journal in Management and social science*, 4(04), 398-411.
- Fakhruddin, S. (2016). UNISDR Science and Technology Conference on the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030.
- Gay, L.R., Mills, G.E., & Airasian, P. (2006). *Educational research: Competences for General Directorate on the Status of Women (GDSW), 2014. Woman in Turkey*.
- Jobi, T., & Kritzinger, E. (2014). Online awareness among Sepedi school children in South Africa. In *Proceedings of the Ireland International Conference on Education (IICE)*.
- Kirimi, K. K (2014). Institutional factors influencing adherence to safety standards Guidelines in Secondary schools in Buuri District, Kenya, Unpublished M.Ed project ; University of Nairobi.
- Kothari, C.R. (2011). *Research methodology: Methods and techniques (2nd ed)*. New Delhi, India: New Age International Publishers.
- Lindell, M. K. (2013). Disaster studies. *Current Sociology*, 61(5-6), 797-825.
- Muigai, W. G (2012) Assessment of the level of implementation of Safety Standards Guidelines in public secondary schools in Ngong Division, Kajiado District, Kenya, Nairobi; Kenyatta University.
- Ng'ang'a, A. W. (2013). *Factors influencing compliance with safety standards in public secondary schools in Nyeri Central district, Nyeri County* (Doctoral dissertation, University of Nairobi)
- Nyakundi, O., (2012). *Implementation of Safety Standard and Guidelines in Public Secondary Schools in Marani District, Kisii county, Nairobi*; Kenyatta University.
- Oguye, A. M. (2012). An assessment of the implementation of safety standards in public secondary schools in Borabu District, Nyamira County, Kenya. *Online) Retrieved from itLibrary. ku. ac. ke/bistream/handle/123456789/5472/migiro, AbelOguye. Pdf, sequence, 3.*
- Playbook, C. (2021). Creating Conditions for Student Success.
- Republic of Kenya (1999) Commission of Inquiry into Education System of Kenya, Totally Integrated Quality Education and Training (Koech Report), Nairobi: Government Printer.
- Republic of Kenya (2008). Safety Standard Manual for Schools in Kenya. Nairobi: Government printer.
- Republic of Kenya, (2010). The Constitution of Kenya. Nairobi: The National Council of Law.

Republic of Kenya, (2012). The Policy Framework for Re-aligning education to the Constitution 2010 and Vision 2030 and Beyond: Ministry of Education Science and Technology.

Republic of Kenya. (2013). The Basic Education Act 2013 No.14 of 2013 , commencement date, 25th January, 2013, Ministry of Education. Government Printer, Nairobi.

Republic of Kenya/UNESCO.(2012). First Review of Education for All in Kenya after Decade of EFA. Ministry of Education and UNESCO. Nairobi.

Shaw, M. (2012). *Promoting safety in schools*: International experienced and actions. Crime prevention series No.3. Bureau of justice. Assistance Monograph. Washington, DC: United States Department of Justice. Shilling 850,000 thousand property razed in student riots (2011, 30th July), P.18.

Solinska-Nowak, A., Magnuszewski, P., Curl, M., French, A., Keating, A., Mochizuki, J., & Jarzabek, L. (2018). An overview of serious games for disaster risk management—Prospects and limitations for informing actions to arrest increasing risk. *International journal of disaster risk reduction*, 31, 1013-1029.

Udali, A. J. (2020). Students and Staff Awareness on School Safety Measures in Public Boarding Secondary Schools in Trans-Nzoia County, Kenya. *European Journal of Education Studies*, 7(12).

Wafaa, A., & Ghonem, N. M. E. S. (2017). Knowledge and Awareness of Disaster Preparedness among Faculty of Nursing Members: Designing of Disaster Management Guidelines.

Wallen, N. E., & Fraenkel, J. R. (2013). *Educational research: A guide to the process*. Routledge.

Wanjala, Genevieve, & Onyango, M. A. (2018). Disaster awareness and preparedness of secondary schools in Homa Bay County, Kenya.