CHAPTER 1:   INTRODUCTION

1:1   BACKGROUND TO THE STUDY

School-aged children encounter a wide variety of hazards every day. While the leading causes of mortality for this age group are hazards that typically occur outside of the school environment, many hazards resulting in injury or illness exist in schools (EU-OSHA, 2016). These hazards confront children on their way to school, in the classroom, in the use of potentially hazardous materials in science, art, and industrial arts courses, on playgrounds, in gymnasiums, on athletic fields, and on their way home (Adelman and Taylor , 2015). Schools, like all buildings and institutions, harbor some risks; inspection of records of illnesses and injuries in schools reveals sometimes preventable or reducible hazards (Farina, 2014).

In US, in 1992, children ages 5 to 17 suffered 13 million injuries and some 55 million respiratory infections, contributing to their missing about 214 million school days, roughly 460 days for every 100 students (EU-OSHA, 2016). While local, county, and state governments bear most responsibility for the operation of schools, in US the federal government has taken a role in health and safety issues, as reflected in the 103d Congress considering 66 bills that referenced the "school environment" and 51 that were directed at the goal of "safe schools (EU-OSHA, 2016).

Over the recent years, lives and property worth millions of shillings have been destroyed in fire disasters in secondary schools in the world. In Africa, students' activism started being witnessed in the 1960s. Mwenda (2008) noted that in Kenya students' riots have been on the increase for example in 2001, 240 cases of strikes were recorded while 360 cases were recorded in 2008. In these cases young people were obsessed with burning, vandalism and destruction of their own institutions. In 2008, a form three student at Upper hill school in Nairobi died in a fire believed to have been sparked by students' unrest in the institution (Aluanga, 2008). Other incidents involving students' unrest include the October 25, 2003 classroom fires at Kinyui Boys Secondary School and the July 19, 2004 incident at Mbiuni High School in Machakos where a student died after colleagues' torched dormitories and classrooms and looted the food store. Whereas, the government of Kenya has always put efforts to stem out the culture of students unrest in schools, the very nature of the unrests have taken a turn for the worse. Such incidences

occurring in secondary schools raise doubts on the safety of children in school (Omuterema and Masinde, 2010).

Xaba (2014) asserted that despite these measures and best practices aimed at ensuring safety at schools, incidents resulting in injuries and sometimes death, continue and seem in fact to be on the increase. For instance, recent incidents include firstly, a case of a five year old learner who was killed allegedly when fellow learners pushed him in front of a heavy-duty lawnmower at a primary school in Soweto (Naik, 2014). Secondly, an eight year old girl died at hospital following excessive bleeding due to being kicked and beaten by three bullies at another primary school (*City Press*, 2014). Thirdly, a boy died after falling into a pit toilet at a primary school in the Limpopo Province (Moloto, 2014).

The Zimbabwean government has shown commitment towards OSH issues by the ratifications of international conventions such as the Occupational Safety and Health Convention, 1981 (No 155) and Occupational Safety and Health Convention, 1985 (No 161). Laws have also been developed to supplement international standards and these laws cover hazards in the mining, industrial and agricultural sectors (Wage Indicator, 2016). However, exclusion of specific sectors such as the education sector for instance secondary schools has not been given much attention despite the large populations that exist in secondary schools and various sources of risks and hazards in schools. Several accidents and injuries have been recorded in Zimbabwean secondary schools in recent years. Cases of fire incidents that destroyed property were reported at Lundi High School in Mwenezi in 2016, at Mauya Adventist School in 2016 and at Mukaro High in Gutu District (The Mirror, 2016). In Bikita District, at Rupare High School in Bikita East in the 2006 century, there was a fire incident that destroyed property including an office and documents. At Chisungo High School in 2016, there was an incident that involved two pupils poisoning each with an acid. In September 2016, there was also a road accident that involved school pupils and the teacher from Jichidza High travelling from a seminar to their school and claimed lives and survivors sustained serious injuries and one was left in a state of disability, (The Mirror, 2016). Reports say that the teacher was drunk and driving.

In spite of all these incidences, it seems no adequate efforts or mechanisms are put in place to ensure the safety of learners, teachers, visitors and other stakeholders in secondary schools. In addition, it seems such incidences are not adequately documented implying that safety issues are

not adequately given attention in the education sector. This study therefore seeks to analyse safety management in the education sector particularly in secondary schools.

1:2 STATEMENT OF PROBLEM

Just like any other workplace, schools also harbour physical and psychosocial safety threats that include accidents, injuries, violence and abuses. Hazards confront children on their way to school, in the classroom, in the use of potentially hazardous materials in science, art, and industrial arts courses, on playgrounds, in gymnasiums, on athletic fields, and on their way home. In Bikita district, several cases of fire outbreaks, injuries, accidents and abuses among learners in secondary schools have been reported for example, one of Rupare High School's administration offices was burnt by fire in 2006 losing property and important documents for the school. At Mukore High School, there was also an incident in 2016 that involved the school head committing suicide (Min of Educ, Bikita District, 2017). More of these physical and psychosocial hazards have been reported in various schools and keep recurring in the district. However, issues of safety management seem to be not adequately addressed and documented by authorities and school administrators. Most secondary schools in the district have approximately 700 pupils at their stations and about 25 teachers on average. This gives a greater probability of more incidents recurring and learners are more vulnerable. Most policies in education sector pay more attention on issues of gender, rights and academic performance than safety issues in schools. Similarly, SHE policies focus more on mining, manufacturing, agriculture etc and less if not on the education sector to physical and psychosocial safety threat.

1:3 OBJECTIVES

1:3.1 General Objective

➢ To examine the safety management systems in secondary schools in Bikita District

1:3.2 Specific Objectives

➢ To identify possible sources of hazards from schools' physical and psychosocial school environments

➢ To assess safety management practices in schools

➢ To examine the systems, procedures and maintenance aspects of schools' safety

➢ To analyse the surveillance status of schools' environments

➢ To evaluate the psychosocial aspects of schools' safety

1:4 Hypothesis

Ho: There is no significant relationship between type of school and safety management practices.

H_1: There is a significant relationship between type of school and safety management practices.

1:5 DEFINITION OF TERMS

Safety: Business Dictionary (2016) defines safety as the condition of being protected from or unlikely to cause danger, risk, or injury. Relative freedom from danger, risk, or threat of harm, injury, or loss to personnel and/or property, whether caused deliberately or by accident. To promote the safety of employees, the laws and regulations are enforced by the US Department of Labor to prevent workplace illnesses, accidents, injuries, and fatalities.

Secondary school: A secondary school, often referred to as a high school or a senior high school, is a school which provides secondary education, between the ages of 11 and 19 depending on location, after primary school and before higher education.

Management: Those aspects of the overall management function (including planning) that develop, implement and maintain the HSE policy OGP report 6.36/210, 1994 in OGP, 2000)

Safety Management System: A safety management system involves a systematic, planned and structured tool that aims at reducing and eliminating any workplace injuries, fatalities and near misses.

Administrative Controls: A system of work, or a work procedure, that is designed to eliminate or reduce the risk but does not include; a physical control or use of Personal Protective equipment(e.g. training, installation of signage and warning labels), (Victoria State Government, 2016)

Hazards: A hazard is an object, physical effect, or condition with potential to harm people, property or the environment, (OGP report 6.40/217, 1994 'Generic hazard register' in OGP, 2000). Industrial Accident Prevention Association (2007) also defined hazards as the potential of any machine, equipment, process, material (including biological and chemical) or physical factor that may cause harm to people, or damage to property or the environment. From the two definitions, hazards are therefore possible workplace dangers that employees, employers, visitors, contractors or children are exposed to, and can result in injuries and fatalities.

Injuries: Physical harm or damage to a person resulting from traumatic contact between the body of the person and an outside agency, or from exposure to environmental factors, (OGP< 2000). In short, these are physical damages to the human body after an accident or exposure to a hazard.

Fatality: Death due to work related injury or illness, (OGP, 2000).

Near miss/near accident: Any event which had the potential to cause injury and/or damage and/or loss, but which was avoided by circumstances. (IAGC, 2000).

Accidents: An unintended incident which resulted, or could have resulted in, the injury or exposure to a substance or contagious disease, of one or more persons, (Victoria State Government, 2016). An accident has also been defined as, 'Any event which results in injury, and/or damage and/or loss', (IAGC, 2000).

Workplace: The surroundings and conditions in which a company or individual operates or which it may affect, including living systems (human and other) therein. (OGP report 6.36/210).

Occupational Safety and Health Management System (OSHMS): An OSH management system is a tool combining people, policies and resources. It aims at improving a business' occupational health and safety performance, making for better organisation and continual improvement within the company by ensuring that OSH matters are integrated across the organisation, (INRS, 2009)

Adopting this kind of system is a signal that the company is taking an integrated approach to the prevention of occupational risks. It is a choice that specifically sets out to:

1:6   JUSTIFICATION

- The study will help policy makers to review, improve and develop policies that address issues of safety in schools. Safety can be incorporated into existing legislative frameworks on human rights that govern learning process in secondary schools and beyond. This in turn enables both learners and employees to work in safe and health environments.

- More so, the study will also help the school administrators to develop a safety culture at institutions thereby reducing or eliminating accidents and injuries as well as costs of remediation.

- The dissertation upon completion can be a useful literature for other students in their studies. It can be library material for Midlands State University and can possibly be published for further use.

1:7   LIMITATIONS

Due to wide scope of the study covering the whole district, it was financially costly to run the questionnaires. Some schools in the sample were not easily accessible, and as such it was costly in terms of time as the researcher has to adapt to time schedules of public transport on follow up. Questionnaires were distributed towards end of term so some questionnaires were not returned.

1:8   STUDY AREA

Bikita is one of the districts in Masvingo province which lies in generally the east of Masvingo town. The district has got three secondary boarding schools and thirty- seven day secondary schools. Most secondary schools have an average of 600 pupils and about 25 teachers. Like any other district, all schools in the district are administered by the District Schools Inspector (DSI) in academic, financial and social facets of schools. However, administration does not put emphasis on safety issues and as a result some schools do experience accidents and numerous incidents in the district in and out of the premises during school businesses.

CHAPTER 2: LITERATURE REVIEW

2.1   INTRODUCTION

The safety of learners and staff at schools is of paramount importance for effective teaching and learning. It is therefore imperative to examine the safety management status of secondary schools so that schools become safe haven for educators, learners and staff. This chapter explores safety in terms of physical and psychosocial schools' environments. Components to be reviewed relate to the possible sources of hazards in schools' physical and psychosocial environments, safety management practices, systems and procedures, maintenance and surveillance aspects of schools' environments psychosocial aspects of schools' safety

2.2   THE SCHOOL ENVIRONMENT

Mick Zais (2011) in Lawrence and Vimala (2012), noted that school environment means the extent to which school settings promote student safety and student health, which may include topics such as the physical plant, the academic environment, available physical and mental health supports and services, and the fairness and adequacy of disciplinary procedures, as supported by relevant research and an assessment of validity. Nhlapo (2006) similarly asserted that the school environment comprises both the physical and psychosocial environments. In this context, it becomes clear that the school environment comprises the physical component and the psychosocial component as illustrated by the figure 2.1 below and therefore safety should be viewed and approached from all these dimensions in schools.
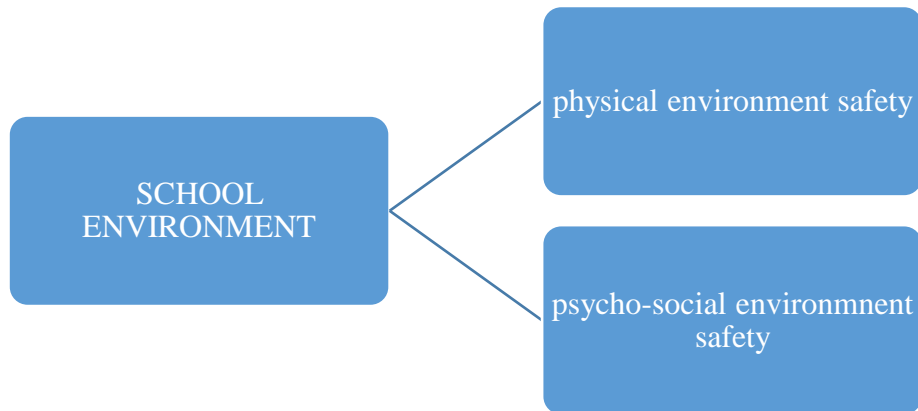
(Nhlapo, 2006)

Figure 2.1   The Schools' Environment

2.2.1   The School's Physical Environment

The physical environment entails those aspects of the school that are concrete, observable and visible and present interactive opportunities for school stakeholders to create a safe physical environment (Nhlapo, 2006). The school's physical environment includes the school buildings and the surrounding grounds and includes physical conditions such as noise, temperature and lighting as well as the physical, biological or chemical agents (Henderson & Rowe, 1998:97 in Nhlapo, 2006). Wargo (2004:l) surmises the school's physical environment as encompassing the school building and all its contents including the physical structures and infrastructure, the site on which the school is located and the surrounding environment.

The physical environment comprises school buildings, school grounds as well as systems and procedures aimed at enhancing safety and security (Henderson & Rowe, 1998:98; Wargo, 2004:2). The safety of the school's physical environment entails ensuring that buildings, grounds and systems and procedures are clean and safe, prevent injuries, provide safe facilities and provide security. The physical condition and on-going maintenance of the school building is an important factor in setting a positive school tone and concomitant high expectations for all members of the school community. Farina (2014) highlighted that a clean, well maintained building is fundamental to the creation of an optimal environment for teaching and learning. Figure 2.2 illustrates the elements of the school's physical environment. The key to creating and

ensuring the safety of buildings entails two critical aspects, namely, maintenance and surveillance.
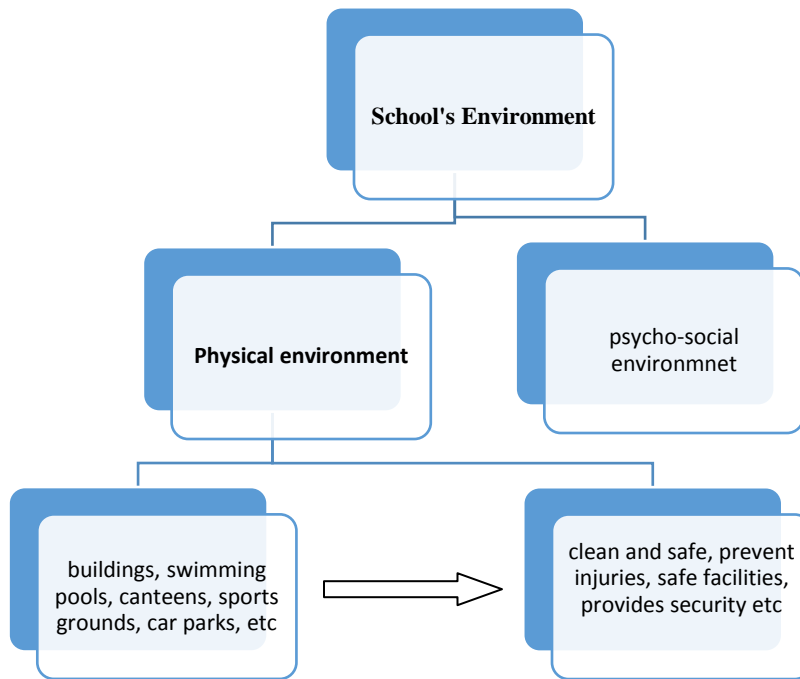
Figure 2.2   The school's physical environment

Source: (Author, 2017)

As depicted by the diagram above, the arrow shows the critical control point for the school's physical environment to provide safety and security to the learners, visitors and the staff. All those areas and activities of the schools' environments need to be clean and safe, free of injuries and provides security. As illustrated by the diagram, the schools' physical environment constitute a number of physical infrastructures that include buildings, canteens, grounds, car parks and many more. All these components or infrastructures of the school's physical environment can harbour dangers, risks and hazards, and as such safety management should pay attention to the physical school environments. American Institutes for Research (2017) asserted that the physical environment of the school speaks to the contribution that safe, clean, and comfortable surroundings make to a positive school climate in which students can learn.

2.2.3 The school's psychosocial environment

The school's psychosocial environment encompasses the attitudes, feelings and values of learners and staff and is reflected in the physical and psychological safety, positive interpersonal relationships, recognition of individuals' needs and successes, support for and building of self-esteem in learners and staff and support for learning (Henderson & Rowe, 1998:97 in Nhlapo, 2006). SSB (2011) also cites that the psychosocial environment refers to the interpersonal relationships in the school, the social environment and how the students and the staff interact with each other. The psychosocial environment is also about the students' experience of the learning situation. UNESCO (2016) noted that considering how much time most children spend at school, psychosocial dimensions of schools have parked the interest of a growing number of researchers concerned with school effectiveness and the emotional well-being of young people. The psychosocial learning environment covers psychological and social factors that have consequences for satisfaction, health and ability to perform at learning places.

It is clear that the psychosocial environment reflects the social and psychological climate of a school and thus gives expression to the way in which learners and staff experience life at the school (Mentz, 2002:147). To that end, a safe and secure psychosocial environment is one that is free from such negative behaviours as discrimination, enhances self-esteem, fosters cooperative, caring and respectful behaviour, respects individual differences and cultural traditions and fosters relationships and communication among the school management, staff and learners. Learners and teachers are psychologically affected by the surrounding social conditions that may disrupt or enhance the quality and effectiveness of learning (UNESCO, 2016). EU-OSHA (2016) also notes that psychosocial risks and work-related stress are among the most challenging issues in occupational safety and health. They impact significantly on the health of individuals, organisations and national economies. Psychosocial risks arise from poor work design, organisation and management, as well as a poor social context of work, and they may result in negative psychological, physical and social outcomes such as work-related stress, burnout or depression (EU-OSHA, 2016)

The WHO (2003) in Nhlapo (2006) adds that such an environment prevents physical punishment, bullying, harassment and violence by developing procedures and policies that do not support physical punishment and that promote non-violent interaction on the playgrounds, in

classes and among staff and learners. It is clear from the foregoing exposition that creating a safe and secure psychosocial environment involves a holistic focus on the school.

2.3   APPROACHES TO MANAGING SCHOOL SAFETY

2.3.1 Conceptual Framework

The study was conceptualized basing on the General Systems Theory propounded by Ludwig Bertalanffy in 1936. The theory states that a system is characterized by interaction of its components and nonlinearity of those interactions, (Gillies, 1982). In this conceptual framework the school is made up of various components which must interact to form a whole. The component safety management was influenced by hazards and risks in the school setting and vulnerability of the learners, visitors and teachers to injuries and other dangers.

Achieving this school environment necessitates a comprehensive and holistic planning process. This should culminate into a holistic school safety plan. The plan should address issues pertinent to the safety of the school's physical environment and the school's psychosocial environment, which should be continuously implemented and evaluated and monitored. Doing so requires paying attention to the management aspects of the plan and its implementation, building security, especially in the light of continuous implementation and changes to the school's developmental conditions, violence prevention and intervention, staff training and crisis management (Adelman and Taylor, 2015)

Managing learner, teacher and visitor safety in the secondary school implies therefore, a consideration of the foregoing aspects of the school environment. This can be enhanced by considering the unique circumstances and needs of secondary school-age learners, which set them apart from other workplace exposures. Vimala and Lawrence (2012) asserted that one obvious factor is their physical disposition to danger, that is, they are at an age where their physical development is such that they do not have strength or the physique to protect and defend themselves from danger. School children are relatively higher risk of exposure and injuries in school environments because they are involved in a variety of school activities that constitute their curriculum. The higher risk of injuries and other dangers are attributed to lack of knowledge and awareness of disaster and hazard management as well as recklessness.

Nhlapo (2006) asserted that as children develop physically, with many being big enough to take on adult tasks such as mowing the lawn and because they want to be considered grown-up, they often want to take on responsibilities they are not ready to handle. However, they are not cognitively able to process information quickly enough to get out of danger many times. These children are at a stage where strong peer pressure abounds, especially during the late primary school-age or pre-teen ages and will often show off or dare one another in company of their friends (Aherin & Todd, *ibid).* Furthermore, they tend to have very weak perceptions of risk-taking as they do not believe that anything can happen to them or they do not have a good perception of their own mortality. Thus, they often are not capable of safely handling complex operational activities, and they are very vulnerable, particularly, in high stress or unusual circumstances that could develop when operating farm equipment.

Children in schools are influenced by psychological factors such as self-esteem, locus of control, need for acceptance, anxiety levels and eagerness to behave like adults (Nhlapo, 2006). This explains why school pupils are particularly more vulnerable to injuries and psychological and social adjustment problems. A consideration of these characteristics clearly reveals the need to ensure that pupils in particular are both physically and psychosocially safe and secure. Therefore, managing safety in schools need to be a holistic approach that focuses on creating a safe school climate.

2.3.2   School Safety Management Practices

Xaba (2006), found in his study *An Investigation into the Basic Safety and Security Status of Schools' Physical Environments*, that while school environments displayed some measure of basic safety, there was lack of conscious efforts aimed at creating safe and secure environments and recommended that schools focus on the basic safety and security of their physical environments, *inter alia*, purposefully planned school-based maintenance, surveillance and collaboration with stakeholders, including outside agencies like law enforcement. Similarly, in his study, *Managing School Safety in the Primary School*, Nhlapo (2006) found that there was poor implementation of safety measures at schools and recommended that schools should embark on proper strategic planning for safety and security, engage all stakeholders and advocate the outcomes of such safety planning so that all involved are knowledgeable about the contents of such plans. Xaba (2014) cited that indeed research on school safety and security related

matters in South Africa, while indicating gaps resultant from poor resources at schools, highlights the lack of implementation of basic safety and security measures

2.3.2.1 The Physical School Environment

- School Buildings

School buildings include classrooms, stairwells and passages, offices, libraries, laboratories, tuckshops, toilets/closets, gymnasia and locker rooms, cafeterias and storerooms (Henderson & Rowe, 1998; Wargo, 2004; Garret, 2005). Other aspects of the physical environment as listed by Henderson and Rowe (1998:98) include materials used in floors, walls and ceilings, signage, safety provisions and access for disabled persons. The safety of school buildings relates to their condition as well as the manner in which they are used. In this regard, Reid (2000) advocates the general appearance of buildings as an indicator of the school's tolerance for misbehaviour, and by implication, safety-threatening situations. Reid *(;bid)* argues that school buildings must be clean, comfortable and devoid of signs of vandalism, damage and graffiti. This implies that school buildings need to be in a clean condition and that damage and graffiti need to be repaired as soon as possible so as to prevent further damage through appearances portraying a non-caring attitude

- Grounds

School grounds entail shrubs, trees and grass, drainage, sidewalks, fencing and gates, and access to the school for transportation and emergency procedures (Henderson & Rowe, 1998:98). In essence, school grounds present the manifestation of safety of the whole school campus. Safety in this sense implies that the schools ground's must be free of any threats to safety, both to property and people in the school. The point of departure in securing the school grounds is to make the campus welcoming, which implies a healthy and friendly school climate that makes everybody feel safe and part of the school (Curriculum Review, 1999). This entails ensuring campus cleanliness and establishing a regular maintenance system, including removal of such eyesores such as graffiti, repairing broken facilities like broken doors and windows (Mackin, 1997).

- The surroundings

Kimbrough and Burkett (1990: 295) advise that the school surroundings must be properly maintained and physically attractive. Reid (2000) sees school surroundings as denoting the school community's tolerance for untoward conditions and behaviour. This is aptly expressed in the general appearance of the school. Accordingly, there should be systems put in place to ensure that school surroundings are kept clean. The school campus must thus be welcoming, both in terms of the general appearance and the kinds of relationships displayed (Curriculum Review, 1999). To this end, UNESCO (2004:l) advocates surroundings that are comfortable, that are conducive to learning, healthy interaction and play and that reduce harassment and anti-social behaviour.

- The perimeter fencing and other boundaries

Boundaries may be perceived as a critical factor in making schools safer places. San Diego County Office of Education (2003) in Nhlapo, (2006) asserts that fencing needs to provide security for learners and staff and is a great way to create territoriality. In addition to defining its boundary and making a visual distinction between public and private property, the fencing and gates that surround and secure a school will typically meet a wide variety of other important criteria - from preventing unauthorised entry to the grounds, protecting pupils, staff and visitors from accidents and injury, deterring theft, anti-social behaviour and reducing the risk of malicious damage (Jacksons, 2015). The type and condition of the fencing and gates along with its aesthetics also project the image of the school and its values to students, staff, visitors and its community. Hanover Research (2013) also asserts that schools may employ fences to maximize natural surveillance, or the ability to easily keep watch over school grounds and monitor the flow of individuals into and out of the campus. Therefore, a secure perimeter fence holds many safety and security benefits. Among other benefits, secure fencing eliminates trespassing. Design National Crime Prevention Council (2003) noted that properly located entrances, exits, fencing, landscaping and lighting can subtly direct both foot and vehicular traffic in ways that decreases criminal opportunities. The use of physical barriers such as fences and access points such as gates give school planners the ability to distinguish between exclusive and non-exclusive access zones.
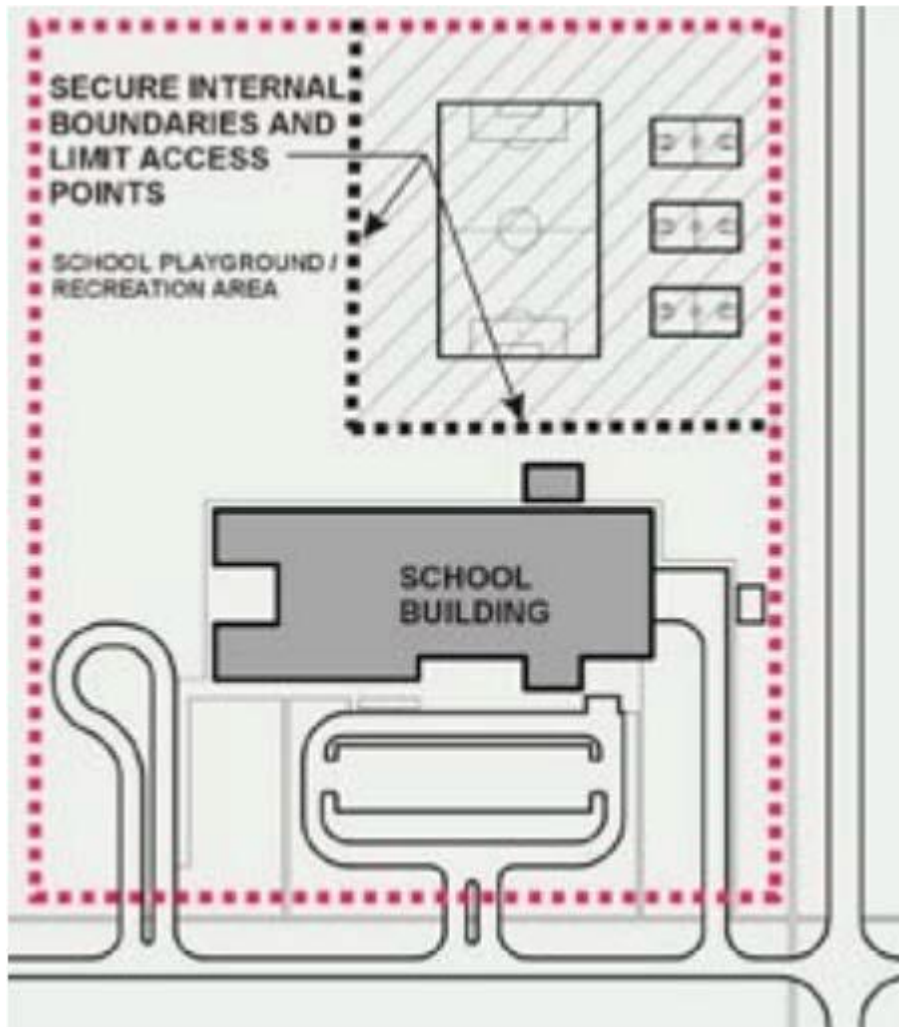
Figure 2.3 Design of school's physical environment

Source: Florida Department of Education (2003)

- Walkways

According to FDoE-Florida Department of Education, walkways should be designed to accommodate occupant loads. The main walkway may need to be wider for overall safety and security and may mean that the learners should be taught to walk on the left hand side of the walkway every time to eliminate or avoid stampede. It can be asserted that orderly use of walkways is critical especially for learners in the primary school. This is because these are learners who are easily excitable and are likely to stampede as they rush to any place of interest, including their urge for competition, for instance, to outrun others. Walk Bike (2013) cited that

some of the best ways to increase the safety of a child's walking or biking trip to school are to provide safe, well-maintained walkways separate from vehicles and teach children to cross streets at marked crossings and to always look left-right-left.

- The playgrounds

Playgrounds are the most critical areas for learner safety. This is where learners play or engage in activities on their own and in their own ways. It is thus important that playgrounds be safe at all times. Vehicular access to these areas should be restricted or eliminated, and playgrounds should be planned with separate areas of activity to keep vehicles out of sports and play areas and restrict entry to other unauthorized areas with infer aha, retaining walls, landscaping and steep slopes or usage of the common and practical method of achieving separation with chain-link fencing (California Department of Education's School Safety and Violence Prevention Offlce: undated). Wargo (2004) in Nhlapo (2006)cited that playgrounds should be fenced off from the main school building so that the school building areas are off-limits during all nonschool hours. He furthermore insists that consideration should also be given to eliminating "learner hangout" areas. These areas are often cluttered with litter, are subject to wear and provide opportunities for graffiti application and harbour smoking, drinking and drug abuse and can provide a setting for conflicts or assaults. It is also important to ensure that playground equipment is in good working order, durable and should be located to afford good visual surveillance by school staff, neighbours and police patrols. vii) Vehicular routes and parking areas

It may be suggested that with regard to vehicular routes and parking areas, the first thing to be done is to separate pedestrians and vehicles. Parking areas should be visible for supervision purposes and not be convenient for racing. These parking areas should be small to reduce vandalism.

- Signage

Signage refers to the display of various signs at school's strategic points to guide children, teachers or staff and all other stakeholders into the school premises, mainly to ensure that they are safe. FDoE (1993) in Nhlapo (2006) highlights that that signs do not provide places for persons to hide behind. Signs need to be well lit in front with care taken to eliminate unnecessary

side shadows. Furthermore, the FDoE (1993:4) adds that the ground behind the sign can be bermed up to prevent people from standing behind it. The alternative, they say, is to raise the sign high enough off the ground that a person's feet would be visible if they were hiding behind it. Therefore signs may be instrumental in cutting down on lost and wandering visitors and they should have large lettering, bold graphic, simple directions and be well lit as well.

Worksafe Australia (2006) through the analysis of cases with limited health and safety management system development reveals the following barriers to improved health and safety performance:

- The lack of knowledge by senior managers of health and safety principles, legislation and management systems.
- A limited and reactive role for the health and safety supervisor typically associated with limited time, resources and support to attend to health and safety, and sometimes in the context of the development of a broader role for the supervisor in relation to quality management.
- Over-reliance on health and safety specialists to drive health and safety

2.3.2.2   Systems and procedures

Safety and security systems and procedures relate to service systems and procedures. Included in safety systems and procedures are, inter aha, systems for drainage and sanitation, waste disposal and management, electricity, alarm, fire, communications, emergencies and evacuations, visitation, vehicular drop off and pick-up, leaving school campus during teaching and learning hours, access control, parking and vehicle control, mail, packages and delivery systems and intrusion detection (Nhlapo, 2006). Some of the above systems and procedures will be discussed in the subsequent paragraphs below.

- Fire control

Fire control equipment includes such items as fire extinguishers, standpipe cabinets, sprinklers and fire hoses (Florida Department of Education, 1993:1). This department posits that fire distinguishers and standpipe cabinets should be located in main circulation paths and should be flush-mounted in walls adjacent to classrooms. Xaba (2005: 17) concurs with the FDoE by

saying that fire systems must be secured in appropriate locations, out of reach and yet accessible for use. According to FDoE (1993:l) fire sprinklers should also be flush mounted in ceilings to avoid damage.

- Drainage and sanitation

Baghri and Wilson (2004:7 in Nhlapo (2006) postulate that safe water and environmental sanitation services, that is, waste facilities are vital for people's dignity and health, and are especially important in ensuring the healthy development of children. Accordingly then, good organisation of cleaning and maintenance of the water and sanitation facilities at schools is of the utmost importance mainly because badly maintained sanitation facilities often cause a health risk (UNICEF, 1998:52). In this regard, stagnant water around tap stands and in blocked drainage channels attracts rodents and forms a breeding place for mosquitoes. Therefore a good cleaning and maintenance system requires funds, spare parts, people and equipment, and a clear division of roles and responsibilities among the actors involved (UNICEF, 1998164). For safe drainage and sanitation the following needs attention (UNICEF, 1998:32): presence of latrines and ratio of latrines for boys and girls; cleanliness of the latrines and presence of cleaning materials; drainage of wastewater; garbage disposal; accessibility of the latrines for the entire school population; and appropriateness of the design.

It is clear from this exposition that the safety of the school's sanitation and drainage relates to ensuring that there is proper water supply and usage, proper waste and garbage disposal and proper practice of hygiene in so far as the sanitation and drainage environment is concerned. In fact, water, sanitation and hygiene (WASH) programs should constitute part of the school's safety and health.

- Electricity

The electrical distribution at a school is of paramount importance. Extra care should be taken for the handling of electric equipment and the maintenance of electricity as a commodity. According to California Department of Education's School Safety and Violence Prevention Office (undated), the school should ensure that there are sufficient numbers of outlets and that these outlets are in a good working condition. There should be no ground fault interruption in wet areas. The school principal and the maintenance committee must ensure that all light switches

are working, properly grounded and wired. Only approved extension cords should be used in schools and it must be ensured that the circuits are not overloaded and all wiring is properly enclosed.

- Access control

Xaba (2005) in Nhlapo (2006) advises that access control systems must be established by the school prjncipal and the School Governing Body (SGB). He cites examples of equipment control like the control of keys: which means that the keys to access the systems must be put in a safe place such as a school's strong-room. Furthermore, access to school facilities should be limited. The school facilities may not be used during school holidays because there might not be a person who will take responsibility for any loss or damage to the school property or other systems.

- Incidence registers

For any repairs that have been done to school property, be they minor or major, a register thereof must be kept (Xaba, 2005) in (Nhlapo, 2006). Maintenance of the school facilities also requires a register in order to be able to see how often one has to maintain or repair some of the amenities of the school. Xaba (2005: 17) is also of the opinion that for any incident pertaining to damage or maintenance caused by a known person, an incident register will have to be kept and updated on a regular basis.

- Emergency systems and procedures

Visser (2003:7) in Nhlapo (2006) recommends that the school's procedures for fire and emergency evacuation must be appended and also be posted in the school entrance passage or hall for obvious reasons. These procedures will be updated as it becomes necessary or appropriate. Furthermore, the principal has to ensure that the First Aid kit is available. The name of the First Aider or the appointed person should be clearly put on the kit. There should also be a person responsible for administering the accident-reporting procedure, the notification of serious accidents causing death or major injury and dangerous occurrences. Nhlapo (2006) cited that the accident book and report forms and arrangements should be easily accessible in case the injured person is unable to complete an accident report form or is someone who is not an employee of the school.

Emergency drills

Emergency drills are meant to test how effective and how well-known the procedures for various emergencies are, by both staff and learners. Emergency drills may be enacted as well as simulated. The log book for the recording and evaluation of practice and evacuation drills must be made available at all times (Visser, 2003: 7) in Nhlapo (2006). Creating a safe and secure physical school environment necessitates therefore, a rigorous and well-planned system of maintenance and surveillance of the school's physical environment

Van Jaarsveld (2011) also had similar findings in her study '*An Investigation of Safety and Security Measures at Secondary Schools in Tshwane, South Africa'*, that most security measures needed attention at schools and these included security guards (stationary fixed position), fire alarm systems, limited number of access entry points to school grounds/building entrances/exits, guards patrolling the premises/perimeter, doors secured with security gates, ID cards/badges for scholars, random drug testing at the school for scholars and adult supervision in halls. She also found that the majority of the scholars and educators were not familiar with the written security plans and most schools did not have the appropriate emergency plans in place at their schools.

2.3.2.3 Maintenance

Maintenance of the features of the school's physical environment involves the repair, replacement and general upkeep of physical features as found in the school's buildings, grounds and safety systems. This basically is in line with the broken window theory alluded to earlier. Szuba and Young (2003:43) in Nhlapo (2006) make the point that maintenance is concerned with ensuring safe conditions for facility users, be they learners, educators, staff, parents or guests. Accordingly, Organization of American States General Secretariat (1998:l) describes school maintenance as an organisational activity carried out by the school community in order to prolong the life expectancy of school buildings, its furniture and equipment. While maintenance is mainly concerned with the repair and fixing of broken equipment, it is important to note that there are four categories of maintenance. Firstly, there is emergency maintenance, routine maintenance, preventive maintenance and predictive maintenance (ibid...)

Emergency maintenance according to UCSC Physical Plant (2004) in Nhlapo (2006), emergency maintenance is concerned with the repair or replacement of facility components or equipment

requiring immediate attention because the functioning of a critical system is impaired or because health, safety, or security of life is endangered. Emergency maintenance may become necessary with little or no advance scheduling when there is a failure of a significant component that either makes the system unusable, or carries significant risk for continued system usability and, at times, a component that may increase the likelihood of a more widespread failure (AITS, 2004).

It is clear therefore that emergency maintenance requires that there be constant vigilance of school facilities and that these should be inspected regularly for any signs of defects. It is also imperative that schools should have plans for dealing with emergency maintenance.

2.3.2.4 Surveillance

Nhlapo (2006) noted that surveillance entails, in the context of school safety, monitoring or watching the whole school environment closely and is categorised into natural surveillance, access control and territoriality. Natural surveillance, according to Simpers (2004:2) in Nhlapo (2006) refers to the placement of physical features to reduce the amount of secluded space, and increase visibility throughout a building and on campus grounds. Kirk and Ward (1998:6) in Nhlapo, (2006) posit that natural surveillance enhances supervision by eliminating architectural barriers, that is, ensuring that open sight lines exist through the design and placement of buildings, landscaping components, lighting and access control. Other examples of natural surveillance include placement of windows as they relate to doors and people, lighting passages, pavements, entrances and exits. Carter and Carter (2001:2) added that the objective of natural surveillance is to provide an environment in which one can see and be seen, to eliminate hiding or hard-to-see places and thereby increase the perception of a human presence.

2.4 HAZARDS AND RISKS IN SCHOOLS

School-aged children encounter a wide variety of hazards every day. While the leading causes of mortality for this age group are hazards that typically occur outside of the school environment, many hazards resulting in injury or illness exist in schools (OTA, 1995). The most common types of injuries and illnesses in schools can be summarised as psychological injuries and illnesses, and injuries resulting from manual handling and slips, trips and falls (Work Safe Victoria, 2015). However, many other types of injuries and illnesses can occur in the school environment and should be addressed in a systematic approach. These hazards confront children

on their way to school, in the classroom, in the use of potentially hazardous materials in science, art, and industrial arts courses, on playgrounds, in gymnasiums, on athletic fields, and on their way home. For many of the hazards in the school environment, the underpinning scientific research is incomplete and thus of limited use (OTA, 1995).

Decision makers, from Congress to individual school boards, are likely to want much more information than just numbers of deaths, illnesses, and injuries when setting priorities for improving school safety (OTA, 1995). Public fear of particular risks and the feasibility and cost of reducing the risk are among other very important considerations. As such, this study represents the first step in the process of setting priorities in risk reduction in schools' environments by relevant authorities. For many of the hazards that this study examined, the Office of Technology Assessment (OTA) could not judge whether schools were safer or not.

2.4.1   Slips and Trips in Schools

HSE (2006) cited that although slips and trips can happen to anyone, it is older people, and particularly women, who are often injured more severely. A simple slip can even lead to death. Safe Work Victoria (2015) also asserted that slips, trips and falls in the school environment can result in a wide range of injuries, including:

• fractures of the forearm and wrist from breaking a fall, falling on uneven ground, slipping on wet floors or being knocked over

 • muscle stress from kneeling, slipping on wet floors, tripping on uneven ground or damaged flooring

• traumatic joint or muscle injury from falling during physical activity, slipping on wet or uneven surfaces, or tripping over objects

HSE (2006) reports that in one accident, a school meals employee slipped on custard spilt on the wooden parquet flooring of a school dining room just as the clearing away and cleaning operations were beginning. She broke her leg and died later from a blood clot. This illustrates the potential severity of these incidents and the importance of immediate action to prevent them. The majority of people in schools, colleges and universities are not employees but students and pupils. Education employers also have responsibilities to protect them from slips and trips. Sites

are often busy and crowded. Structured timetables may lead to large numbers of people moving around at the same time, increasing the potential for slip and trip incidents (HSE, 2006). HSE statistics suggest that slips and trips are a major cause of accidents to education employees, pupils/students and others. Slip and trip incidents can be controlled, provided the subject is given sufficient attention. The control measures needed are often simple and low-cost, but will bring about significant reductions both in human suffering and costs. Developing and implementing a successful policy to control slip and trip risks will require the support of everyone, including senior managers, employees, contractors and others. Schools and colleges may wish to take a 'whole school' approach and also involve the pupils/students in practical discussions on the risks and how they can be controlled. They may also wish this approach to include disability issues that affect staff, pupils and visitors to the premises, (HSE, 2006).

2.4.2   Plant and equipment

Plant and equipment in the technology rooms, science rooms, maintenance sheds, facility sheds and other parts of the school pose significant risks of injury (such as open wounds, amputations, lacerations and burns). Wherever it is reasonably practicable, plant and equipment that has a lower level of risk must be used. If there is still some risk associated with the plant and equipment, physical controls, such as machine guarding and personal protective equipment, must be used to reduce the risk (Work Safe Victoria, 2015).

2.4.3   Hazardous substances and dangerous goods

Hazardous substances are substances that have the potential harm human health. Jacksons, (2015) noted that in the school environment they include chemicals used in science rooms, technology rooms, art rooms and swimming pools, as well as cleaning agents). Pembina Trails School Division (2010) observed that many inorganic chemicals and organic chemicals, such as acid halides, phenols, and so forth are corrosive and often toxic. If these are spilled on the desk, in the hood, or on a shelf, call for assistance in cleaning them up. School leaders must first eliminate any risk associated with hazardous substances so far as is reasonably practicable. If it is not reasonably practicable to eliminate the risks associated with the substance, other control methods should be implemented, so far as is reasonably practicable for instance substituting the substance with a less hazardous substance, isolating people from the substance or using

engineering controls (Work Safe, 2015). If it is not reasonable practicable to use the above risk controls then administrative risk controls such as systems of work should be implemented and if this is not reasonably practicable personal protective equipment, must be used. A register must be kept of all the hazardous substances in the school, and a material safety data sheet (MSDS) must be obtained and be available for each hazardous substance (Work Safe, 2015).

Dangerous goods are substances that can cause injury or death and can also seriously damage property and the environment. Petrol, LPG, pesticides and acids are common dangerous goods that may be found in the school environment. Risks associated with dangerous goods must be eliminated or reduced as far as practicable (Jacksons, 2015)

2.4.4   Psychosocial safety

A safe and secure psychosocial environment is one that is free from negative behaviours such as discrimination, bullying, violence, all forms of harassment and punishment and instead, enhances self-esteem, fosters co-operative, caring and respectful behaviours, promotes respect for individual differences and cultural traditions and fosters relationships and communication among the school management, staff and learners (*Voices & Choices*, 2003). Risks to psychological and physical health can result from work-related stress, violence, harassment and bullying (Work Safe Victoria, 2015). In light of this, a psychologically disturbed learner is at high risk of dangers or hazards that may be existing in a school environment.

2.4.4 Common fire hazards

Farina (2014) noted that improper use and maintenance of gas stoves often create fire hazards. Some common fire hazards emanate from kitchen fires from unattended cooking, such as frying, broiling, and simmering, electrical systems that are overloaded, resulting in hot wiring or connections, or failed components, combustible storage areas with insufficient protection, combustibles near equipment that generates heat, flame, or sparks, leaking batteries, personal ignition sources - matches, lighters, electronic and electrical equipment. This clearly shows that fire is one of the common hazards in schools that require emergency response systems in place.

The U.S.F.A. (2007) in Shibutse et al, (2013) reports that hotels, boarding houses and boarding schools are susceptible to higher incidences of fire because of carelessness, smoking, candles, and simple ordinary home life activities that are not appropriate for a boarding/hotel type atmosphere. Cooking in electric appliances such as toaster ovens or electric plates, discarding flammable materials such as cigarettes, storing towels and sheets where cleaning supplies are kept are just a few of the causes of fires in secondary schools. Secondary schools are susceptible to high incidents of fire because of carelessness, faulty electrical installation and even Arson (U.S.F.A, 2007 in Shibutse et al, 2013).

The Kenya Red Cross Society (KRCS) observes that secondary schools are vulnerable to disasters because of lack of specialized training such as fire drills, lack of appropriate fire fighting equipment, lack of adequate resources, lack of systematic disaster mitigation and response mechanisms (GOK, 2008). According to USFADC (2007) in Omuterema et al (2013), fire drills are the largest contributing factor to the safety of the students in school. Poor management skills are partly to blame for cases of indiscipline that are rising sharply in secondary schools, which in some cases has led to several deaths and injuries. This has resulted to students' unrest being a hazard in issues of fire disasters. Brazil in implementing performance based approach to fire safety code lacked specialist in fire safety engineering to give guidance on implementation (Tavres, 2008).

2.5 CHAPTER SUMMARY

This chapter presented a literature review on schools' physical and psychosocial environments in terms of surveillance, maintenance and management aspects as well as safety systems and procedures. Hazards and risks associated with school environments constituted part of the review. The safe school environment was presented from a social-ecological perspective of the school, which focuses on an understanding of people in the context of their social environment and focused on how people interact with one another and their environment. A safe school environment was thus identified as both physically and psychosocially safe. This implies creating conditions that foster physical, psychological and social safety. The importance of safe school planning which culminates into a holistic school safety plan is thus a quintessential aspect of a safe school environment. The following chapter presents the empirical research method of this study.

CHAPTER 3

3.1   INTRODUCTION

This chapter outlines methods that were used to collect data for the study. The chapter contains a discussion of the research design, the target population, sampling procedures, data collection instruments, pilot testing, data collection procedures, data analysis and presentation. It summarises the methods used to establish the safety status of secondary schools in Bikita District.

3.2   RESEARCH DESIGN

According to Mukore-Rukuni et al (2001) a research design is a plan or structure for an investigation. The researcher used a descriptive survey design. This research design enabled the researcher to obtain in-depth information, which can be used to facilitate the generalisation of one's findings to the larger population (Maree 2007). Descriptive Research describes what exists and may help to uncover new facts and meaning. The purpose of descriptive research is to observe, describe and document aspects of a situation as it naturally occurs (Polit and Hungler, 1999). Thus the researcher employed this research design to establish the safety status and management within secondary schools in the district.

3.3   TARGET POPULATION

The target population was identified as the Secondary School Educators and the Students/ Learners in Bikita District.

3.4   SAMPLING

3.4.1   Sampling techniques

A cluster sampling was used in which all the secondary schools in the district were listed and grouped into 8 Zones or Clusters from Zone A to Zone H. Each zone represented five secondary schools. A quota sampling was used to select groupings or zones based on types and scale of schools within the district. This gave both boarding schools and day schools equal representation in the sample. A stratified random sampling was used to select the learners based on level of education that include ZJC, O'Level and A 'Level at every station or school. Stratified sampling

involves the division of a population into smaller groups known as strata. A convenience sampling was used on the educators that included the School Heads, HODs and teachers because any of these subjects could equally provide relevant data to the study. Educators that were available at the time of data collection were requested to complete the questionnaire.

3.4.2   Sample size

The researcher used a sample size table to determine the sample size. The table states the appropriate sample for given different population sizes at Confidence Level= 95% and Confidence Level= 99% against the ranges of margin of error of 5.0%, 3.5%, 2.5% and lastly 1.0% (The Research Advisors, 2006). Since there is an inverse relationship between sample size and the Margin of Error, smaller samples will yield large Margins of Error. For example, a sample size of only 100 will construct a 95% Confidence interval with a Margin of Error of almost of ±13%, too large a range for estimating the true population proportion with accuracy (ibid.) The researcher used the Confidence Level= 95% and Margin of Error= 5% as suggested by many researchers.

 To use these values, the researcher determined the size of the study population in the selected zones in Bikita District. A miniature survey was conducted to obtain the number of secondary schools in the District. The information was obtained from the District office's Human Resource Department. It was found that there were 40 secondary schools in Bikita district. A snap survey of 10 schools indicated an average of 20 educators per school. This would mean that there are about 400 secondary school educators in the selected four zones, that is N=400. A sample size (n= 196) for educators was thus established through the sample size table. With an average of 800 learners per school, there are about 8000 learners in selected four zones in the district (N=8000). This gave a sample size of 365 (n=365) for the learners. A simple random selection was used to select the educators and the learners to participate in data collection.

3.5   METHODS

Data was collected using quantitative research. Quantitative research is defined as a formal, objective and systematic process where data is used to obtain information about study phenomena (Stubbs, 2005 in Nhlapo, 2006). According to Vockel and Asher (1995) in Nhlapo (2006), quantitative research involves description and data-collection processes, research designs

and statistical procedures and includes among others, questionnaires. To this end, this study made use of a questionnaire and observations techniques to collect primary data, and publications to collect and analyse secondary data.

3.5.1   PRIMARY DATA

3.5.1.1 The questionnaire

McMillan and Schumacher (2001) in Nhlapo (2006) assert that for many reasons the questionnaire is the most widely used technique for obtaining information from subjects. Among other things, a questionnaire is relatively economical, has the same questions for all subjects and can ensure anonymity. In developing a questionnaire, questionnaires can use statements or questions, but in all cases the subject is responding to something written for specific purposes (ibid).

It is noted, however, that questionnaires are limited by certain disadvantages, especially in a survey of this nature, where respondents have to indicate the status of their own school environments (Leedy & Ormrod, 2001). According to Best and Kahn (1993:230) and Tuckman (1994:216), questionnaires are limited by, among others, misleading responses as a result of not being able to check the motivation of respondents, socially desirable responses as a result of respondents being unwilling to respond to questions bordering on private or controversial issues, indiscriminate answering of the questionnaire due to little interest in a particular problem and failure to get a true picture of opinions and feelings as a result of the questionnaire not being able to probe deep enough as in interviews. The questionnaire was, however, preferred for its advantages, especially the anonymity factor, and among other advantages, the relatively low cost of administering it, the ability to cover a large geographic area and the ability to reach a large sample (Delport, 2002).

To all intents and purposes, the questionnaire was used in this study as a data collecting instrument because it would be easy to distribute, thus becoming cost effective with regard to financial resourcing and time. The researcher distributed the questionnaires to schools through the (DSI) District Schools Inspector's office after granted permission to carry out the study. It was stated in the letter that educators should not take more than 15 minutes to complete the

questionnaire. Educators and learners were requested to complete these questionnaires and hand them back to the contact person as soon as was possible.

3.5.1.2 Administering the Questionnaire

The questionnaire was developed by the researcher according to the objectives of the study and based on the literature review. To establish the reliability and validity of the questionnaire, the empirical research question on the status of school safety and the literature review were used as the starting point to ensure that the questionnaire content and the constructs used in relation to school safety were appropriate and would ensure dependability and reproducibility and that the questionnaire would measure what it was supposed to measure. The questionnaire was constructed in two sections A and B, sequentially to provide general information about respondents and schools, and on the status of safety management systems of schools including risks/ hazards and safety management practices, the surveillance and maintenance status, systems and procedures and psychosocial status of schools' safety. On the general information, the questions solicited respondent's gender; age cohort; teaching experience; position held; number of staff members and the number of learners, levels of education and the location of schools under investigation. This information is important to the study as it directly influences the perception of the respondents in as far as safety in their school is concerned and because variables like the location of the school, numbers of staff and learners bear relevance to school safety and perceptions thereof (Nhlapo, 2006)

3.5.1.3 Follow-up on questionnaire

Personal follow-up visits were undertaken to collect outstanding questionnaires. These were mainly in schools where educators were engaged in school activities that required the researcher to allow for delays in collecting the questionnaires.

3.5.2   Observations

The researcher used observation method to augment data collected through the questionnaire. Priyadarshni (2016) cited that in observation method, the information is sought by the way of the investigator's own direct observation without asking from the respondent. Participant Observation was used on secondary schools which were easily accessible to the researcher to

gather data on the safety status in schools. Benard (1994) in Kawulich (2005) defines participant observation as the process of establishing rapport within a community so that its members will act naturally, then removing oneself in the data to understand what is going on and be able to write about it. He includes more than just observation in the process of being the participant observer; he includes observation, natural conversations, and interviews of various sorts, checklists, questionnaires, and unobtrusive methods. The researcher used a checklist to check on the safety status in school environments during observations. The researcher opted for this method as he is oftenly involved in various other curriculum activities within most secondary schools in Bikita District. This offered the researcher some ground truth on safety status, management and culture within schools on issues questionnaires could not adequately reveal. Observation method served to augment data collected through questionnaires.

3.6 DATA ANALYSIS

Frequency statistics were computed and these were scheduled in tabular and graphic form where necessary. Quantitative data collected using questionnaires was coded, processed and analysed using Microsoft Excel 2010 to yield frequencies and percentages. A regression analysis was particularly used to test the significant relationship between type of school and safety management practices.

3.7 CHAPTER SUMMARY

The focus of this chapter was on the research methodology that was used in this research. The next chapter will present the data analysis and its interpretation.

CHAPTER 4: DATA PRESENTATION AND ANALYSIS

4.1. INTRODUCTION

The chapter presents, analyses research data collected. The chapter shows the relationship between the research problem and the research findings. The summary of the data collected is discussed hereunder.

4.2 GENERAL INFORMATION

Data collected in this section relates to the demographic information of the respondents.

4.2.1 Review of respondents

A total of 196 questionnaires for the educators were distributed to secondary schools. Out of 196 questionnaires for the educators, 170 (86.7%) were returned and collected at the district office. Less than 100% return was possibly due to timing of distribution of the questionnaires which was done when schools approached end of term. Some of the educators could have been busy with end of term examinations. Nevertheless, the response rate was satisfactory as it still appropriately represented the target population.

A total of 365 questionnaires were also distributed for the learners or students on the same date. Of this number, 300 (82.1%) questionnaires were returned. The reason for less than 100% return could also be examination related. In all cases, however the response rate was quite satisfactory as it still adequately represented the target population.

4.2.2 Biographical information

Figures 4.1 and 4.2 represent the general information of the respondents (Annexure A and Annexure B questions)

**Figure 4.1 General information of the educators**
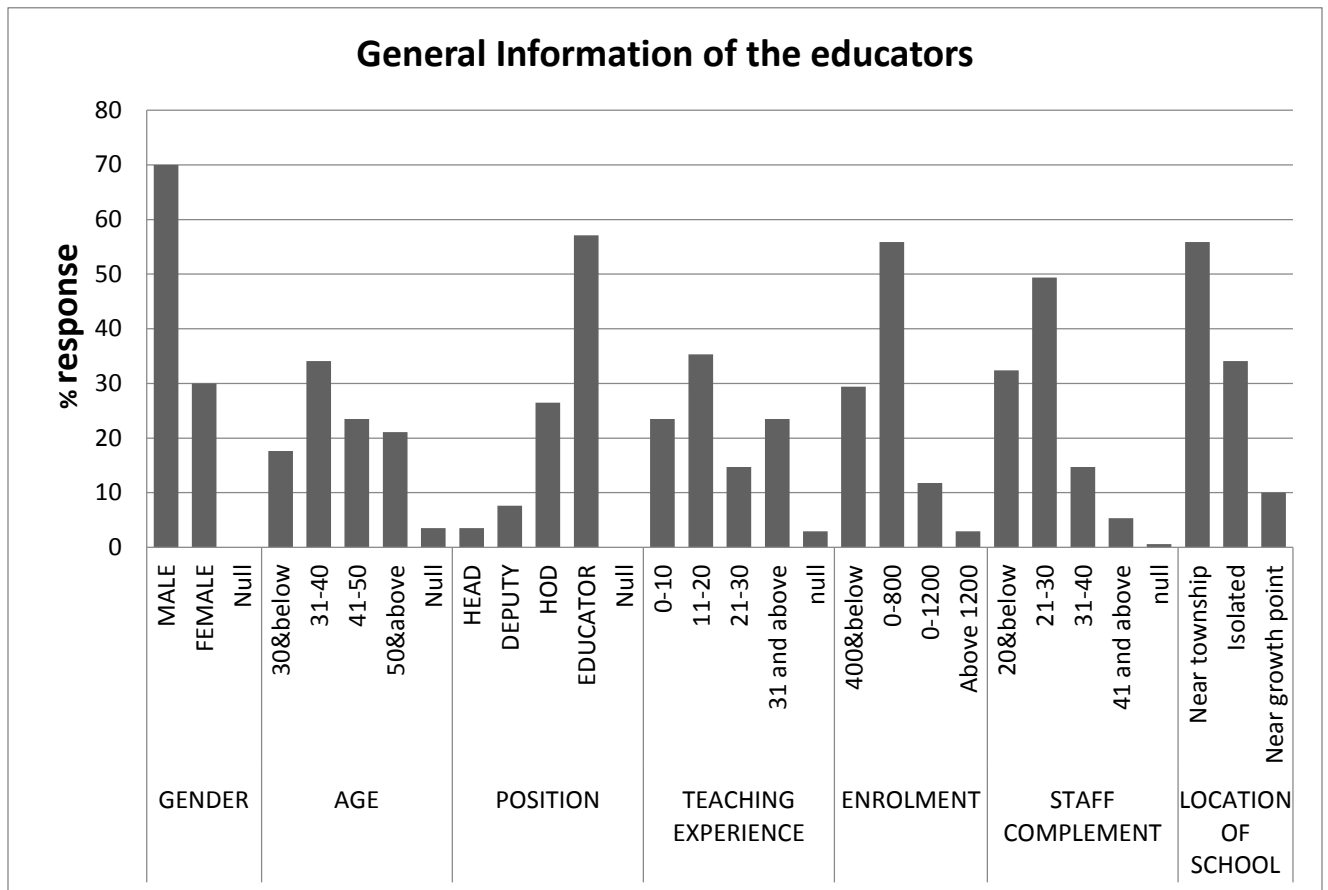
There was 100% response rate from the educators on gender. Of the respondents 30% were female and 70% were male. On the learners, the response rate was equally satisfactory on this question (99%) and a null response of 1%. Of the 99% response rate, 44% were males while 55% were females. From these responses, it is clear that most educators in secondary schools are aged from 31 years to over 50 years. This assures the researcher that the data was generally more reliable and valid data to this study as it was supplied by majority of more experienced educators from different secondary schools. Nhlapo (2006) shares the similar sentiment that experienced educators will have had extensive life experience and capable of judging the status of the safety

and security of their schools. From the responses above, it shows that most learners or students in secondary schools in Bikita District are between the age of 16 and 20 years

In terms of teaching experience, the majority, 73.6%, have teaching experience of more than 10 years. Only 23.5% of the educators have been in the service for 10 years and below. This relates to the age factor where majority of the educators as pointed out earlier are aged between 31 and 50 years. Similarly, the majority of respondents (57.1%) occupy teaching posts while 26.5% are Heads of Departments and 8.8% are School Heads. The least number of respondents (7.6%) are deputy principals. Nhlapo, (2006) echoed that the status quo may have an influence on the status of school safety due to the fact that the safety of the school may primarily be entrusted to the school management, which accounts for only 8.4%. On the other hand, the educators who are the majority of respondents have direct influence on the health and safety of the learners because of their teaching roles.

Figure 4.2 General information of the learners

Biographical Information of learners
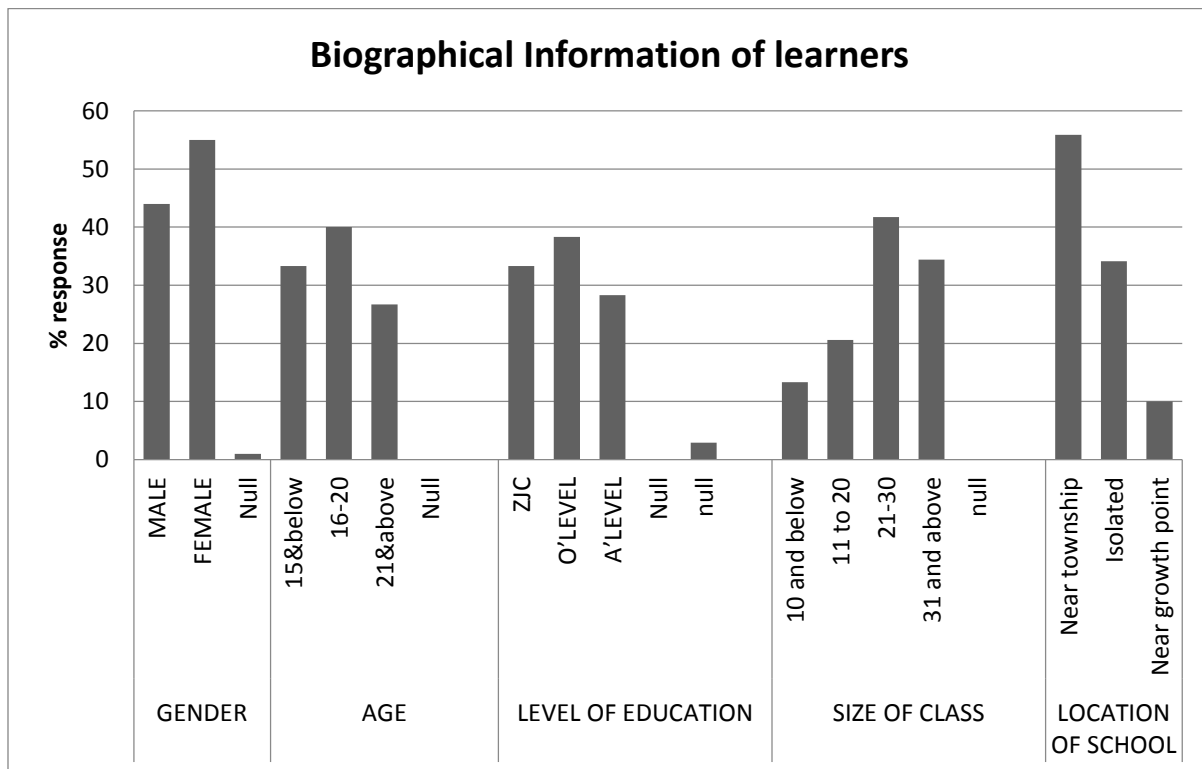
In terms of enrolments and class sizes, majority of respondents (55.9%) are based at stations with enrolments of between 0 and 800 learners. Most schools have got substantial class sizes for example as depicted, 41.7% of learners indicated that they learn in classes of between 21 and 30 followed by 20.6% of between 11 and 20 students in a class and the least response was 13.3% of 10 and less students in a class. In a similar finding, most secondary schools have between 21 and 30 educators (49.4%), while 32.4% work in schools of between 10 and 20 educators

In terms of location, most responses (55.9%) indicated that most schools are located near the townships, 34.1% are located in isolated places while the smallest number of respondents (10%) works in schools that are located near growth points. Close proximity to shopping centres, townships or growth points can influence the behaviour of the learners as well as exposing them to a number of accidents and hazards (Nhlapo, 2006). Safety measures therefore should extend beyond internal school environment to outside school environments for instance road safety.

The next section presents data on schools' physical and psychosocial environments beginning with common hazards that emanate from schools environments.

4.3 POSSIBLE SOURCES OF HAZARDS FROM SCHOOLS' ENVIRONMENTS

There was satisfactory response rate on this question by the learners. Most responses show that there are numerous hazards that emanate from secondary school environments. The hazards emanate from laboratories, sports, classrooms, social interactions and other areas. Work Safe Victoria (2015) in a similar study, cited that the most common types of injuries and illnesses in schools can be summarised as psychological injuries and illnesses, and injuries resulting from manual handling and slips, trips and falls. Figure 4:1 below show the various sources of hazards that are found in schools.

Figure 4:3 Data on possible sources of hazards in schools
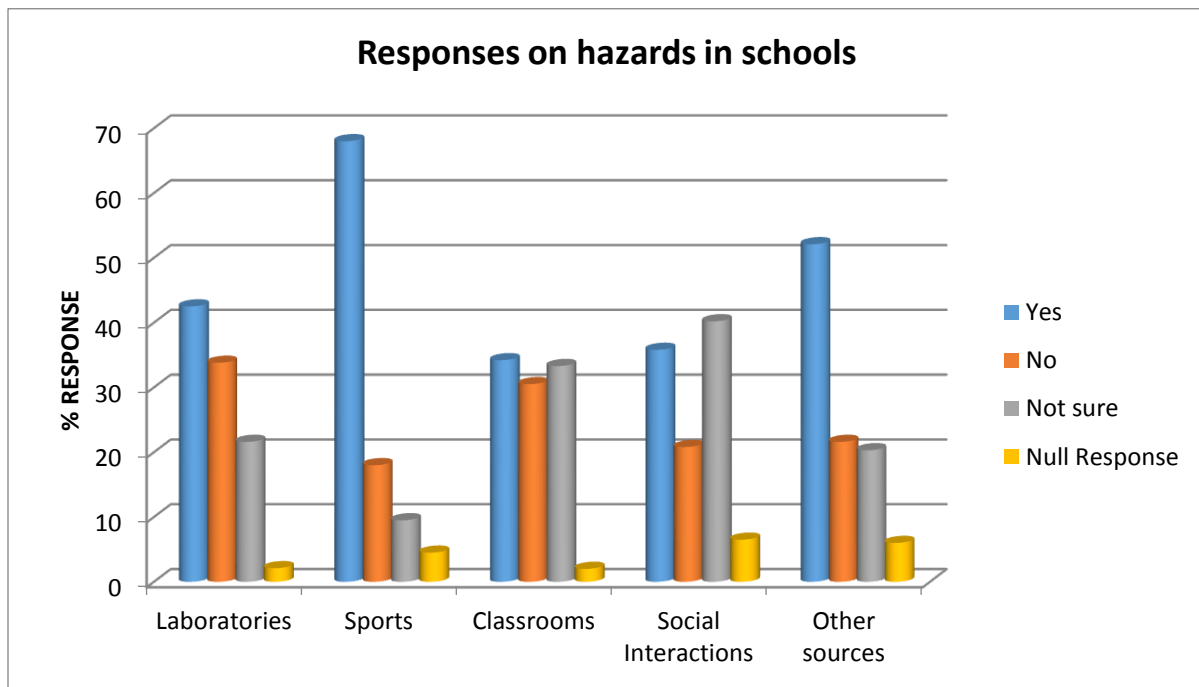
Other common sources that have been noted by the learners through open ended questions include the school gardens, pathways, veld fires and school trips. The researcher's own findings through participant observation compliment most of these findings. A number of schools visited by the researcher during the time of study did not have fire guards and properly surfaced classrooms. Sports had the highest response rate of learners acknowledging the witnessing of accidents and injuries at 68% response rate, followed by other sources at 52.1% , laboratories at 42.5%, social interactions at 35% and the least response was on classrooms at 34.2%. In open ended questions, more learners also cited psychosocial safety threats that include abuses,

corporal punishments and bullying. The findings above clearly show that safety management is equally essential in the education sector just like any other industrial sector. Similar findings were made on hazards from sports by Pembina Trails School Division (2010)) that recommended that all playground equipment, whether purchased by the district or donated by a community or school-related group, should be assessed in terms of suitability and durability and for possible health or safety hazards. This implies that sports constitute part of curriculum elsewhere, as such most hazards emanate during learners' participation in sports activities.

A sizeable number of respondents were not sure if they have witnessed hazards in laboratories (21.6%), social interactions (40.2%), classrooms (33.3%) and other sources (40.2%). This could imply that most schools do not have incidents registers or in cases where the registers are present, they are not strategically displayed for example on notice boards where anyone can easily access. This is supported by the majority of respondents (60%) from the educators who responded that their schools do not have incidents register to record any safety infringement or accidents.

 In a similar study, Pembina Trails School Division (2010) observed that many inorganic chemicals and organic chemicals, such as acid halides, phenols, and so forth are corrosive and often toxic. If these are spilled on the desk, in the hood, or on a shelf, call for assistance in cleaning them up. Jacksons, (2015) also noted that in the school environment hazards include chemicals used in science rooms, technology rooms, art rooms and swimming pools, as well as cleaning agents. Both studies similarly explored on sources and hazards in school environments, the later focused on laboratory hazards. However, OTA (1995) asserted that for many of the hazards in the school environment, the underpinning scientific research is incomplete and thus of limited use.

The next section presents data on the status of schools' physical and psychosocial environments.

4.4 SAFETY MANAGEMENT SYSTEM IN SECONDARY SCHOOLS

This chapter deals with two components of schools' safety that is the physical environment and the psychosocial environment. The safety management system within schools was examined by making an item analysis of data on the status of schools' physical and psychosocial environments. The data on the physical environment is categorised into management aspects, maintenance aspects, surveillance aspects and systems and procedures. Data on the psychosocial environment was presented and analysed later in this chapter.

4.4.1 SAFETY MANAGEMENT PRACTICES IN SCHOOLS

This section presents data on management aspects of school safety. Figure 4.3 presents data from educators in this regard.

Figure 4.4 Data from educators on the management aspect of school safety
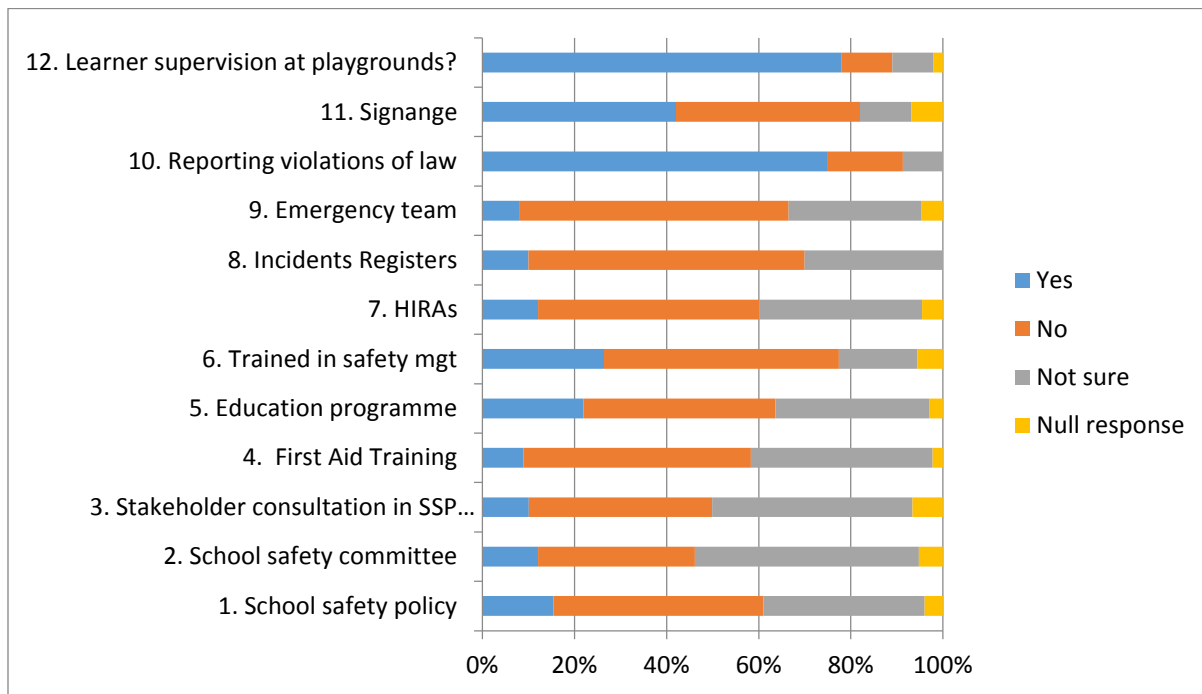
As depicted above, a significant number of respondents (48.7%) the educators indicated that they were not sure if their schools have safety policies. This response rate is compounded by the responses from the learners whose majority (42%) also indicated that they were not sure if their schools do have SSPs. Another significant number of respondents (34%) for the educators

indicated that their schools do not have safety policies while 32.5% of the learner respondents indicated the same. A cumulative percentage of these two response rate clearly indicates that most schools do not have safety policies since drafting this policy requires involvement of the educators. The same observation was made by the researcher in most schools that there are no school safety policies displayed on the notice boards.

Non- existence of SSPs is supported by the responses from the educators on the presence of school safety committee (SSCs) where a significant number of respondents (45.6%) indicated that they do not have school safety committees. Only 15.4% of the respondents indicated that their schools do have school safety committees. On the other hand, majority of respondents from students (52%) also indicated that they were not sure if their schools do have SSCs while a significant number of respondents (35%) indicated that they learn in schools without SSCs. Only 11% of the respondents acknowledged that their schools have got SSCs while a Null Response accounted for 2%. It is disconcerting that some educators indicated that their schools do not have SSCs or are even not sure of this. This has a direct bearing on the involvement of school stakeholders in safety and security matters of schools.

The non-existence of both SSPs and SSCs could be the reason why most management items depicted by figure above had a greater negative response. Nhlapo (2006) noted that in most cases, school safety policies are developed and designed by the school safety committees in the consultation of other stakeholders. A significant number (43.5%) of the educators indicated that they were not sure if their schools consulted the relevant stakeholders in drafting the safety policy while 39.8% responded that there were no consultations that were held. This could also imply that in few secondary schools where the policies are available, these policies might not be practical and may not enjoy the ownership of stakeholders. It could also be that there is a lack of understanding of procedures for drawing up a policy by other stakeholders. Farina (2014) observed that a workplace that does not have a safety committee and safety policy places employees and other stakeholders at risk of hazards because of lack of coordinated system of safety management. The SSCs are responsible for implementing educational programmes on safety and security awareness, proper signage, training and incident reporting. All these items generally scored a low positive response implying that most schools do not have safety management practices in place.

In terms of first aid training of staff, only 8.9% of the respondents (educators) indicated that they are trained in first aid. A sizeable number (49.4%) indicated that no staff member has been trained and 39.5% were not sure. There was a 2.2% null response rate to this question. These statistics can deduce that the majority of schools do not have staff members who are trained in First Aid. This indicates a gap in capacity building of educators at schools in first aid safety. On the other hand, only 24% of the students responded that the members of staff are trained in first aid implying that most schools do not have trained first aiders. It becomes questionable on how the educators attend to athletes or participants in sports activities in the event of injuries. Clearly, much has to be done in this regard since majority of learners (68%) cited sports as the greatest area where they witness injuries. Figure 4.5 below shows learners' response rate on management aspects.

Figure 4.5 Data from learners on the management aspect of school safety

Learners' responses on management

Key
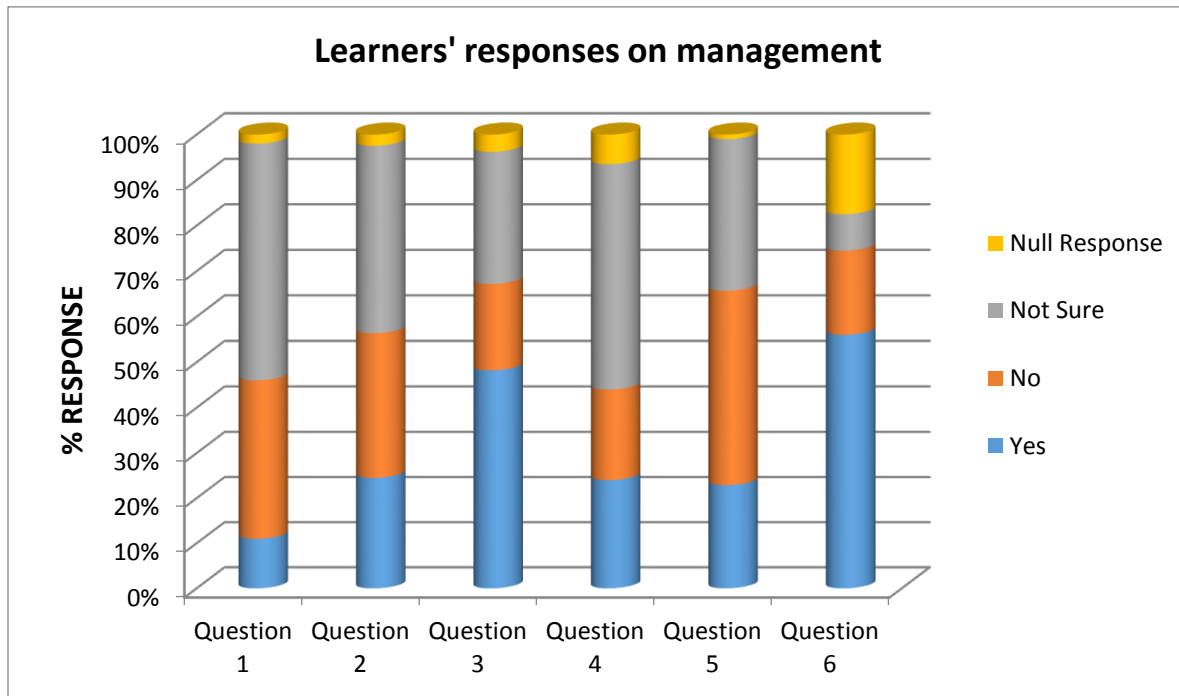
Number and Question

1. Is there a school safety committee?
2. Does the school have a school safety policy?
3. Are signs concerning visitors and trespassing properly displayed at strategic points to the school?
4. Are members of staff trained in First Aid?
5. Is there an education programme in safety and security awareness?
6. Are learners supervised at playgrounds?

On whether schools do have education programmes in safety and security awareness, a sizeable numbers of respondents from the educators (41.3%) indicated that there are no of such programmes in their schools. Similarly, 42.8% response from the learners had the same response. Respondents who were not sure if the programmes are present accounted for 33% for the educators and 33.3% for the learners. This could imply that education programmes in safety and security awareness are not in place or they are not done in most schools. It is essential to have

such safety and security awareness programmes done regularly to conscientise educators, learners and visitors on their safety. From the analysis above, it becomes clear that the learners, staff and visitors are vulnerable to emergencies and other hazards within school environments.

As depicted by the two figures above, majority of respondents in each case indicated that they are not trained. Learners accounted for 62.5% while educators accounted for 51% response rate. The researcher also made that observation during schools sports competitions that it seems learners are not trained in safety precautions during participation as many athletes could collide and get fractured. This clearly shows that there are gaps in terms of on job and off job safety training for the educators and subsequently for the learners. On whether hazards are identified and risks analyzed to establish trends of common school safety problems, majority of respondents from the educators (48%) indicated that they are not. A sizeable number of respondents (35.4%) were not sure if the hazards are identified and analysed. This supports the finding that most schools do not have educators that are trained in safety management as cited earlier on. This could be attributed to the curriculum that does not demand much of issues of safety in schools. Clearly, one can deduce that both staff and the learners are not knowledgeable of how to manage and respond to emergencies within school environments.

On whether schools do have incident registers to record safety violations and accidents. Majority of responses to this question indicate that 60% of the respondents work in schools where incidents registers are not available, 30% where there were not sure if school do have incidents registers, while only 10% indicated that the incidents registers are available. These findings are supported by the researcher's observations that no one of the schools visited during the time of the study had incident registers displayed for example on notice boards. Interestingly, all the educators responded to this question putting a null response to 0. Keeping a record of safety threats and actual occurrences threatening school safety is an important component of hazard identification and risk analysis process (OGP report,1994) The responses clearly indicate that most secondary schools do not have incident registers or where the registers are available; they might not be displayed strategically for easy accessibility. One can deduce that safety is not given attention in schools and as a result little resources are directed towards safety management systems.

In terms of emergency team organized to implement emergency plans, the majority of respondents (58.4%) indicated that there are no emergency teams organised to implement emergency plans at their schools. As opposed to this, just (8.1%) of respondents indicated that there are such teams at their schools, while 28.8% of responses indicated that they were not sure. The null responses accounted for 4.7% of respondents. The low percentage of respondents who indicated their schools as having emergency teams could be from the well-managed and resourced schools probably boarding schools where policies are adhered to. However, more than half of the responses indicated that their schools do not have emergency teams to implement emergency plans, which indicates that most schools do not have proper safety systems in place. This is a serious safety threat. In case of emergencies, staff, visitors and most importantly school children who are more vulnerable will be greatly affected due lack of emergency response plan or procedures.

The findings on management aspect as depicted by the two figures clearly show that most secondary schools do not have management practices in place that include proper signage, training and awareness, HIRAs and incident reporting. This could be attributed to lack of resources or lack of commitment on safety issues by school administrators. As discussed earlier, most management items scores a generally low frequency count. This could be also explained by the lack of school safety committees for most schools. The Kenya Red Cross Society (KRCS) observes that secondary schools are vulnerable to disasters because of lack of specialized training such as fire drills, lack of appropriate fire-fighting equipment, lack of adequate resources, lack of systematic disaster mitigation and response mechanisms (Government of Kenya, 2008). According to USFADC (2007) in Omuterema et al (2013), fire drills are the largest contributing factor to the safety of the students in school.

Worksafe Australia (2006) in a similar study on safety and health systems through the analysis of cases with limited health and safety management system development revealed the following barriers to improved health and safety performance; the lack of knowledge by senior managers of health and safety principles, legislation and management systems and a limited and reactive role for the health and safety supervisor, typically associated with limited time, resources and support to attend to health and safety, and sometimes in the context of the development of a broader role for the supervisor in relation to quality management. A synthesis of these similar findings

commonly reveals lack of attention (ignorance) and responsibility on safety at workplaces, in this case in schools.

Key system elements that were similarly studied by Worksafe Australia (2006) were management organisational arrangements, including responsibility, accountability and planning; integration of health and safety within broader workplace management systems; consultative arrangements, or the contribution of health and safety representatives and committees; and specific program elements, including health and safety rules/procedures, workplace inspections, accident/incident investigation, information and purchasing systems, and training. The method of data collection was also primarily questionnaire. This could explain why findings were similar although, the study extended to health issues.

A regression analysis was conducted to test the significant relationship between type of school and safety management practices. *'P' values for all the safety management practices' items were less than 0.05* (table 4)

Table 4.1: Regression output on significant relationship between type of school (dependent) and safety management practices (predictors)

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.46	0.26	5.63	0.00	0.95	1.97	0.95	1.97
school safety committee	0.00	0.10	-0.04	0.97	-0.20	0.19	-0.20	0.19
signage	-0.05	0.04	-1.33	0.19	-0.14	0.03	-0.14	0.03
HIRAs	-0.02	0.04	-0.50	0.62	-0.10	0.06	-0.10	0.06
first aid training	0.14	0.06	2.28	0.06	0.02	0.26	0.02	0.26
safety training	-0.04	0.06	-0.72	0.47	-0.16	0.08	-0.16	0.08
incident registers	-0.08	0.05	-1.72	0.09	-0.17	0.01	-0.17	0.01
emergency team	0.05	0.06	0.93	0.35	-0.06	0.16	-0.06	0.16
Learner supervision on playgrounds	0.02	0.05	0.36	0.72	-0.08	0.11	-0.08	0.11

4.4.2 Hypothesis testing

Ho: There is no significant relationship between type of school and management practices

Decision: Reject the null hypothesis

Conclusion: Safety management practices are not influenced by type of school.

4.4.3 MAINTENANCE ASPECTS OF SCHOOLS SAFETY

Figure 4.6 below portrays data on the maintenance of the school environment.

Figure 4.6 Data from educators on maintenance aspect of school safety
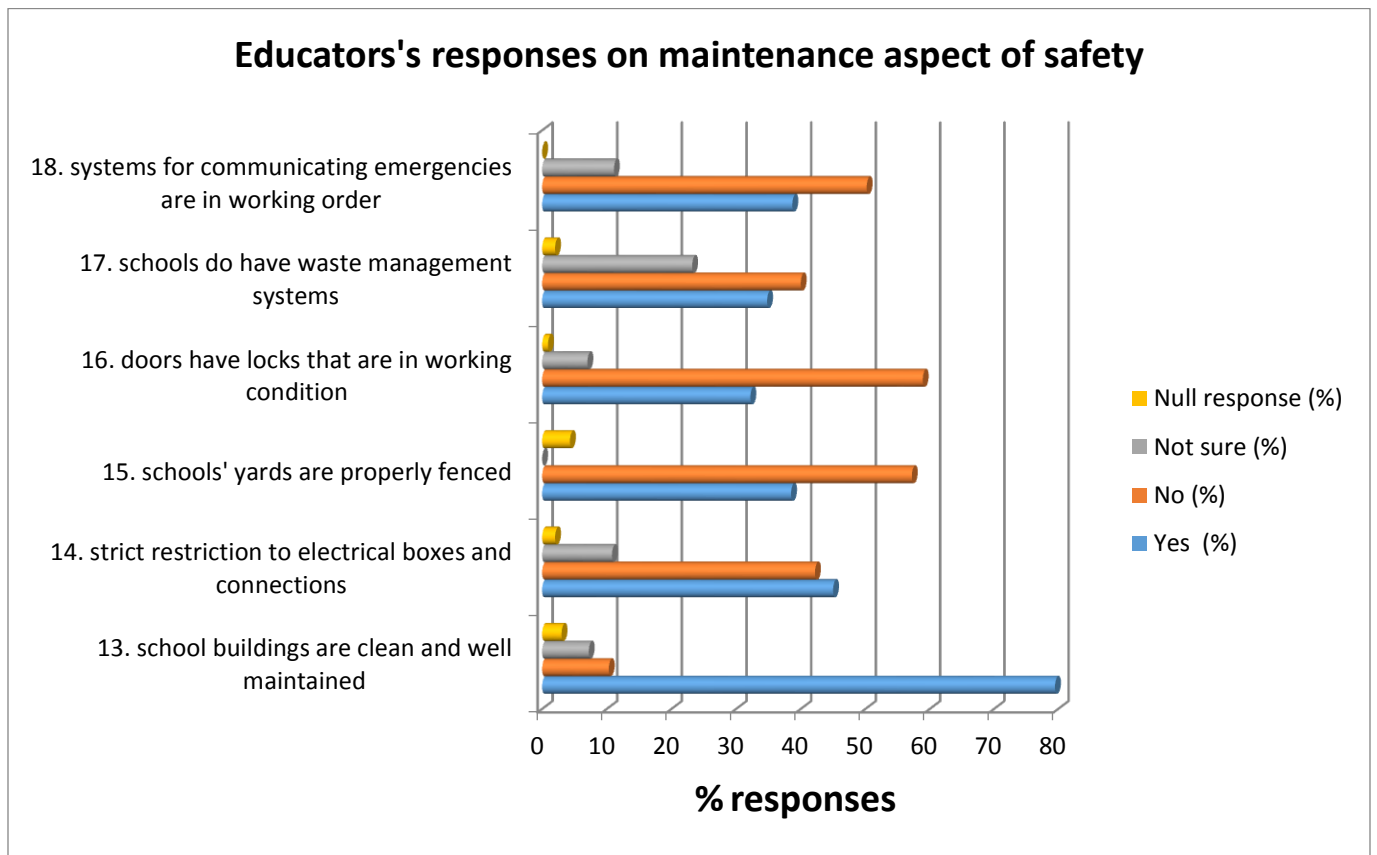

On whether school buildings are clean and well maintained, the majority of respondents indicated that school buildings are clean and properly maintained. A significant number of respondents (79.5%) from the educators indicated that the school buildings are clean and well maintained while 10.3% of the respondents indicated that school buildings are not. There were 3% null responses. This is also supported by majority of respondents from the learners (52.2%) who also indicated that the buildings are clean and well maintained. A very small number of respondents educators (7%) were not sure while a significant number of the learners (38.5%) were not sure if that is done. There was a null response of 2.3%. This shows that school

administrators give more attention to such issues in most secondary schools. The researcher also observed that most schools visited during the time of the study are clean, however not all schools are well maintained especially day schools. This can be attributed to lack of adequate resources by most schools.

The maintenance of school cleanliness can be related to low costs since such responsibilities are usually given to the learners for most day schools in the district. Thus most secondary schools' premises are clean. More so, health authorities in their respective communities also require school administrators to ensure that their schools are clean to prevent spread of diseases. Most schools adhere to this requirement as they also fear to violate the laws. However, reasons for not cleaning and maintaining school buildings by few schools can be attributed to lack of adequate resources and these might be the newly established satellite schools in the district that are financially downtrodden. A substantial number of respondents who were not sure could imply that there is cleanliness and maintenance taking place in school but not adequate enough to please them. This could also imply that there is no consistency in the practices in their schools. It is essential that school buildings are frequently cleaned and well maintained for health and safety reasons. Figure 4.7 below shows the responses from learners on maintenance aspects of school safety.

**Figure 4.7** Data from learners on maintenance aspect of school safety
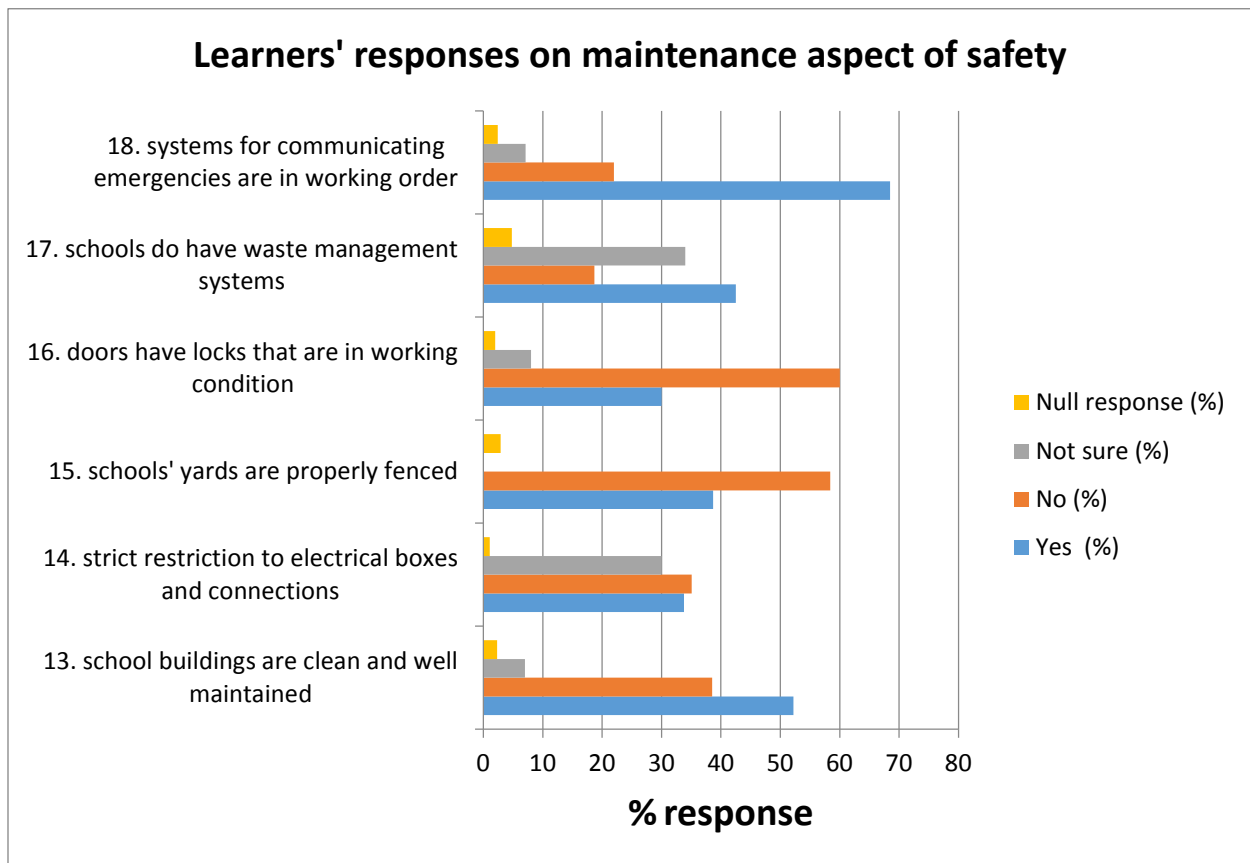
On whether there is strict restriction to electrical boxes and connections, Shumow and Lomax (2000) asserted that this is especially important in schools as most learners at teenage can peer influence one another to temper with electrical points. The majority of responses (45%) from the educators indicated that there is strict restriction, 42.2% indicated being unsure while 10.8% indicated that they were not. There was a null response of 2%. In contrast, the vast majority of respondents (35.1%) from the learners/ students indicated that there is no strict restriction to electrical boxes and connections. More so, 30% of the respondents were not even sure. A cumulative analysis of the two response rates indicates that there is deficiency on electrical safety management in schools.

Statistics of the learners and educators that are not sure could also imply that most secondary schools in the district are not electrified. However, respondents that are unsure of this could be

indicative of the apathy with which school safety aspects are taken. This is indeed cause for concern.

In terms of systems for communicating emergencies are in working order, the majority of respondents from the educators (50.2%) indicated that the systems for communicating emergencies at their schools are in working order. A sizeable number (38.7%) of respondents from educators indicated that such systems are not in working order and 11.1% indicated that they were not sure as depicted by figure 4.8 below.

**Figure 4:8** Responses from educators on emergency communication systems
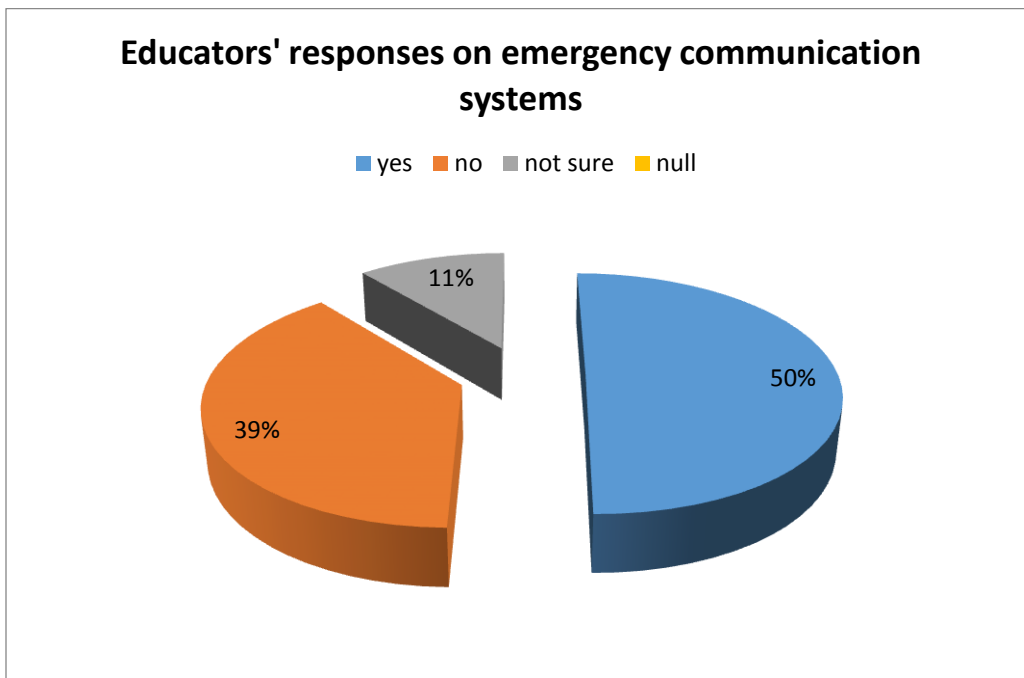
Similarly, vast majority of learners indicated that their schools have got systems for communicating emergencies that are in working order while 22% of respondents from the learners indicated that the systems are not working order and smaller number of respondents (7.1%) was not sure. Null response accounted for 2.4% as shown by figure 4.9 below.

Figure 4:9 Responses from learners on emergency communication systems
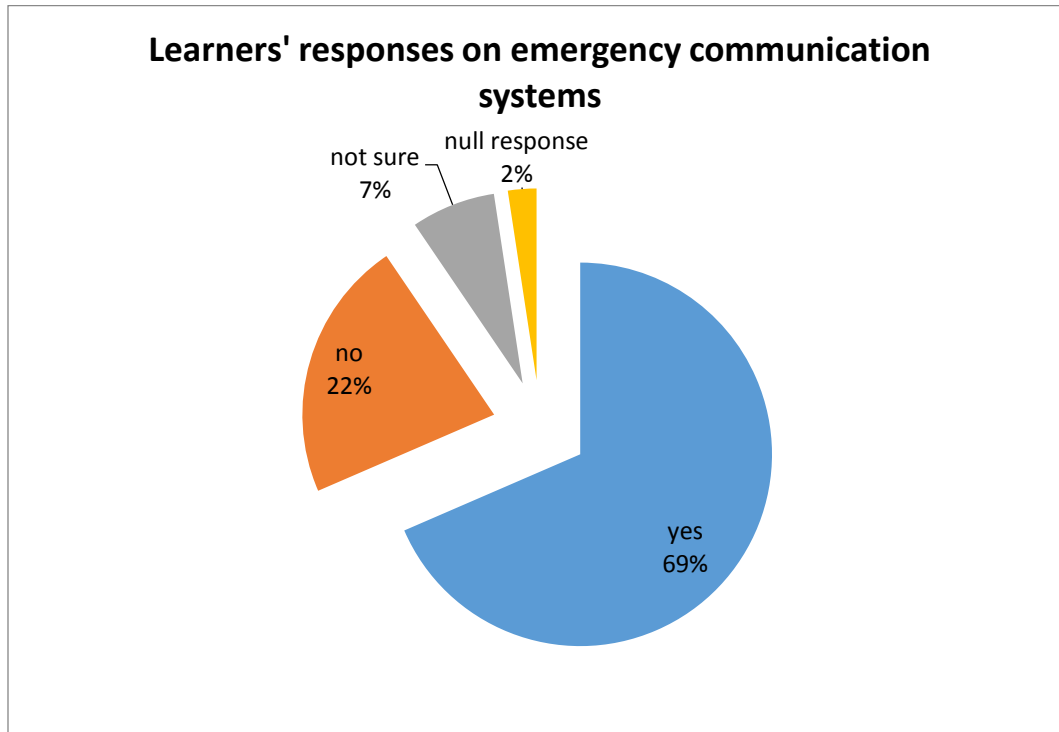
Null responses to this question accounted for 2.4% of the respondents. Respondents who indicated "no" to this question could be from remote schools where there are no electricity and telephone lines. This could also be attributed to lack of adequate resources. However, the bottom line is that most schools could be overlooking the essence of these emergency communication systems since alternative cheaper devices can be used such as siren using solar systems.

Generally the findings indicate that most secondary schools do not maintain their physical systems that can potentially cause hazards on the learners, staff and visitors. The State of Queensland (Department of Education and Training) (2016) noted that maintenance is important in offering safety and security of the learners and staff against intruders. Sadly, the majority of respondents from both educators and learners indicated that their schools are not properly fenced. Educators accounted for a negative response of 38.5% while learners accounted for 58.4%. The researcher also made similar observations that out of ten schools visited on sports during the time

of study, only four were fenced. On whether all doors have locks that are in working condition, majority of respondents from the educators (58.9%) and (60%) from the learners indicated that their schools do not have doors that have locks which are in working conditions. Only 30% of the learners and 32.2% of the educators indicated that doors in their schools have locks that are in working condition. Doors offer safety against destructive winds and other harsh weather conditions (Jacksons, 2015).

A plethora of reasons can be attributed to why most schools do not have proper maintenance systems and these may include among others lack of resources, vandalism by learners or trespassers, poor planning and general apathy. Most schools that constituted target population are day schools and only few are boarding schools, thus most schools might not have the financial muscles to cater for such safety mechanisms. This could also be due to poor planning and could point to schools not having working and effective maintenance plans.

Van Jaarsveld (2011) also had similar findings in her study '*An Investigation of Safety and Security Measures at Secondary Schools in Tshwane, South Africa'*, that most security measures needed attention at schools and these included security guards (stationary fixed position), fire alarm systems, limited number of access entry points to school grounds/building entrances/exits, guards patrolling the premises/perimeter, doors secured with security gates, ID cards/badges for scholars, random drug testing at the school for scholars and adult supervision in halls. She also found that the majority of the scholars and educators were not familiar with the written security plans and most schools did not have the appropriate emergency plans in place at their schools.

Similarly, Xaba (2006), found in his study *An Investigation into the Basic Safety and Security Status of Schools' Physical Environments*, that while school environments displayed some measure of basic safety, there was lack of conscious efforts aimed at creating safe and secure environments and recommended that schools focus on the basic safety and security of their physical environments, *inter alia*, purposefully planned school-based maintenance, surveillance and collaboration with stakeholders, including outside agencies like law enforcement.

A synthesis of all these findings clearly points at generally absence of maintenance and management systems of safety and security in schools. All studies, including this one were carried in similar environments. However, it seems in South Africa, laws are strict in terms of

health and safety issues in schools unlike in Zimbabwe. This could be the reason why most maintenance aspects are being addressed in South Africa where these studies were carried out. However, Xaba (2014) cited that indeed research on school safety and security related matters in South Africa, while indicating gaps resultant from poor resources at schools, highlights the lack of implementation of basic safety and security measures.

4.4.4 SURVEILLANCE STATUS OF SCHOOLS

This section focused on items analysis of surveillance aspects of schools safety. Table 4.2 below portrays data on the surveillance component of school environment.
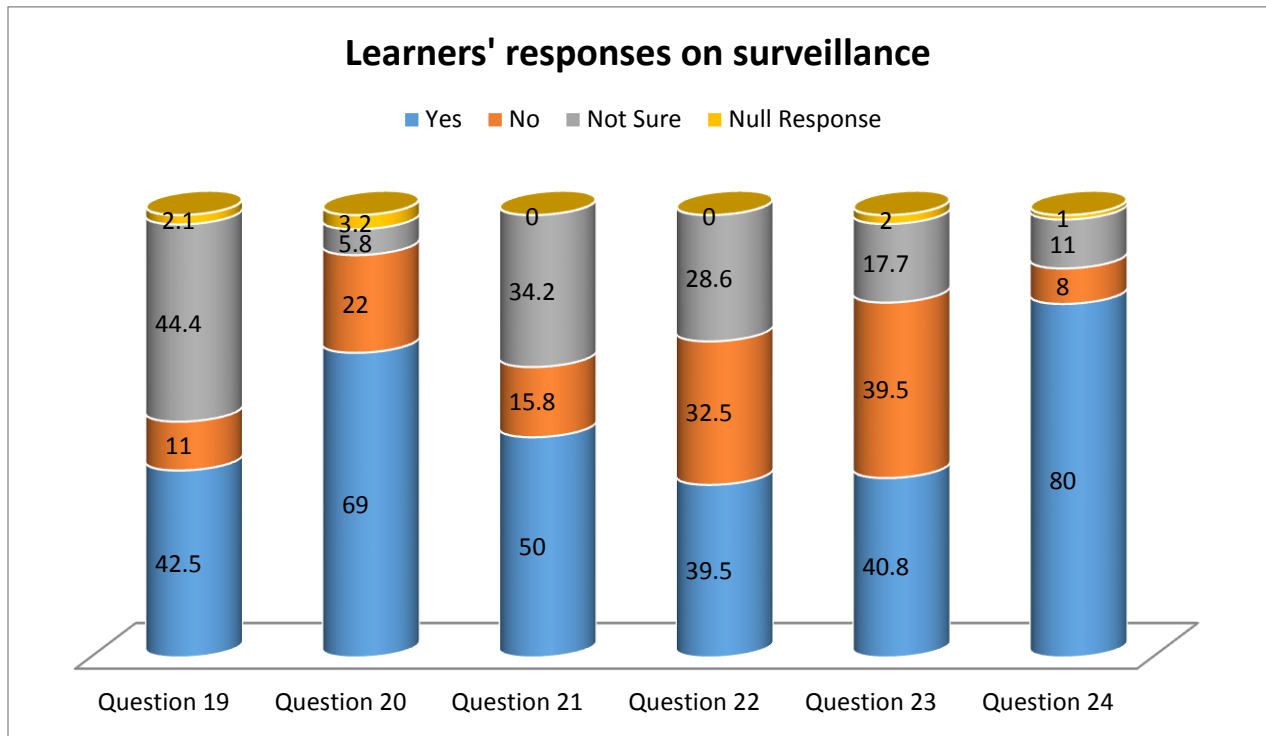
Table 4.2 Data from educators on surveillance aspect of the school safety

Questions	Yes	No	Not sure	Null response
	(%)	(%)	(%)	(%)
19. Is the main entrance always monitored and offers security?	31.2	48.8	15.8	4.2
20. Do shrubs and trees allow good visual surveillance of all areas of the school?	70	17	10.1	2.9
21. Is there regular surveillance and monitoring of all school areas?	52.2	22	23.8	2
22. Is the visitors' parking clearly demarcated, marked and monitored?	52	19	26.5	2.5
23. Are entrances and exits clearly demarcated and marked?	42	40	16	2
24. Are toilets easily accessible and visible to staff, visitors and learners?	89.9	5.8	-	4.2

As depicted by table 4.4 above, it shows that most secondary schools in Bikita District do have proper surveillance of their school environment especially in terms of constant monitoring, demarcation and marking of main entrances and exit points. The majority of responses from the educators (48.8%)) indicated that the main entrances are not always monitored, while 31.2% agree and 15.8% of responses indicated that they were not sure. On the other hand, most learners (44.4%) were not sure, while 42.5% agreed that the main entrances are always monitored in their schools. The researcher observed that many schools do have security guards but sadly they are not constantly monitoring the main entrance as they will be monitoring different areas of school premises. This implies that there might be no consistency in monitoring making learners more vulnerable from external safety threats.

In terms of regular surveillance or monitoring of all school areas (Question 21), 52.2% of the respondents from educators indicated that there is no regular surveillance/monitoring of all areas of their schools. However, a sizeable number of the educators (22%) agreed that regular surveillance is done while 23.8% were not sure if that is done regularly. Additionally, 34.2% of the learners were also not sure if regular surveillance is done while 15.8% indicated that it is not done. The figure 4.6 below portrays response status of the learners on surveillance aspect of school environment.

Figure 4.10 Data from learners on surveillance aspect of the school safety

Learners' responses on surveillance

■ Yes ■ No ■ Not Sure ■ Null Response

	Question 19	Question 20	Question 21	Question 22	Question 23	Question 24
Null Response	2.1	3.2	0	0	2	1
Not Sure	44.4	5.8	34.2	28.6	17.7	11
No	11	22	15.8	32.5	39.5	8
Yes	42.5	69	50	39.5	40.8	80

Key
Number and question
19. Is the main entrance always monitored and offers security?
20. Do shrubs and trees allow good visual surveillance of all areas of the school?
21. Is there regular surveillance and monitoring of all school areas?
22. Is the visitors' parking clearly demarcated, marked and monitored?
23. Are entrances and exits clearly demarcated and marked?
24. Are toilets easily accessible and visible to staff, visitors and learners?

On whether visitors' parking is clearly demarcated, marked and monitored, the majority of responses from the learners (39.5%) indicated that the visitors' parking is clearly marked, demarcated and monitored; 32.5% of the respondents reported that parking for visitors is not clearly demarcated, marked and monitored, while a further 28.6% of respondents were not sure about the status of visitors' parking.. Nhlapo, (2006) echoed that this is a very important component of access control system and this helps to quickly identify visitors within school premises. Monitoring also ensures that school children are safe and do not loiter around parking areas as they risk being hit by vehicles (OTA, 1995).

However, in contrast the majority of respondents (52.8%) from their educators indicated that visitors' parking is not clearly marked, demarcated and monitored while 45% indicated that they work in schools where visitors' parking is clearly demarcated, marked and monitored. There was a null response of 2.2%. All in all, it clearly shows that most schools may have parking areas but they are not clearly marked and constantly monitored as also observed by the researcher.

Similarly, The bulk of responses from the educators (42.%) indicated that entrances and exits are clearly demarcated and marked, while 40.% indicated a negative response and 16% were not sure. On learners, similarly a vast number of respondents 40.8% indicated positive responses on whether entrances and exits being clearly marked and demarcated while a sizeable number (39.5%) also disagreed on this aspect. More so, 17.7% were not sure while a null response accounted for 2%. While, majority of respondents were in agreement about clear demarcation of entrance and exit points within their schools, sadly there a very thin line (only 1.3%) between the 'yes' and 'no' response rates which becomes questionable of the actual situation in most secondary schools. Similarly, from the educators, there was an almost even distribution of the 'yes' and 'no' responses of 2%. This clearly shows that entrances and exits are not clearly marked and demarcated in most schools in the district. This has implications for the ease with which surveillance and access control are exercised. Design National Crime Prevention Council (2003) noted that properly located entrances, exits, fencing, landscaping and lighting can subtly direct both foot and vehicular traffic in ways that decreases criminal opportunities.

These findings imply that most schools do not have surveillance/monitoring systems which are properly managed, thus most secondary schools are vulnerable to external safety threats. In a similar study on managing safety in primary schools, Nhlapo, (2006) also found out that regular surveillance of all areas, signage denoting parking areas for visitors and monitoring thereof, clear marking of entrances and exits and procedures for dealing with unauthorized persons on school property scored relatively low frequency counts. He cited that while these aspects are catered for to a certain degree, this is not done in a conscientious, purposeful and outcome-based manner but as a matter of function, rather than as a matter of safety consciousness and an outcome of a coordinated and planned school safety and security programmes. Similarity of the findings can be attributed to similar methodology that was used that is quantitative particularly use of questionnaires. However, in this study, a participant observation was further used. In terms of

frequency scores, generally there was an even distribution of responses on surveillance aspects unlike in this study. Nhlapo's study was done in an urban set up for two districts while this study was done in a rural environment, thus most items vary in terms of frequency counts. More so, in South Africa under which the study was carried out, there is law governing health and safety in schools whereas in Zimbabwe, no such policy or law is available. Thus a regulatory framework is also required to address safety issues in Zimbabwean schools. However, generally findings were the same.

4.4.5 SYSTEMS AND PROCEDURES OF SCHOOLS SAFETY

This section presents an item analysis of systems and procedures of schools safety. Figure 4:11 below illustrates data from educators on whether learners and staff know how to respond to emergencies.

It seems no actions are known for most emergencies in many secondary schools. Only bullying had the vast number of educators (62.5%) that indicated that learners and staff know the response actions to it. All other emergencies did not even account for at least 50% response. In most cases, a significant number of educators were not even sure if response actions are known for example intruders/trespassers accounted for 39.2%, armed robberies 40%, electrical faults and failures 36% and gang fights 42.5%. This in itself makes it a greater cause of concern. This clearly gives a picture that most secondary schools in the district do not have emergency teams, emergency plans, safety personnel and safety education programmes.

**Figure 4:11:** Responses from educators on whether learners and staff know how to respond to emergencies
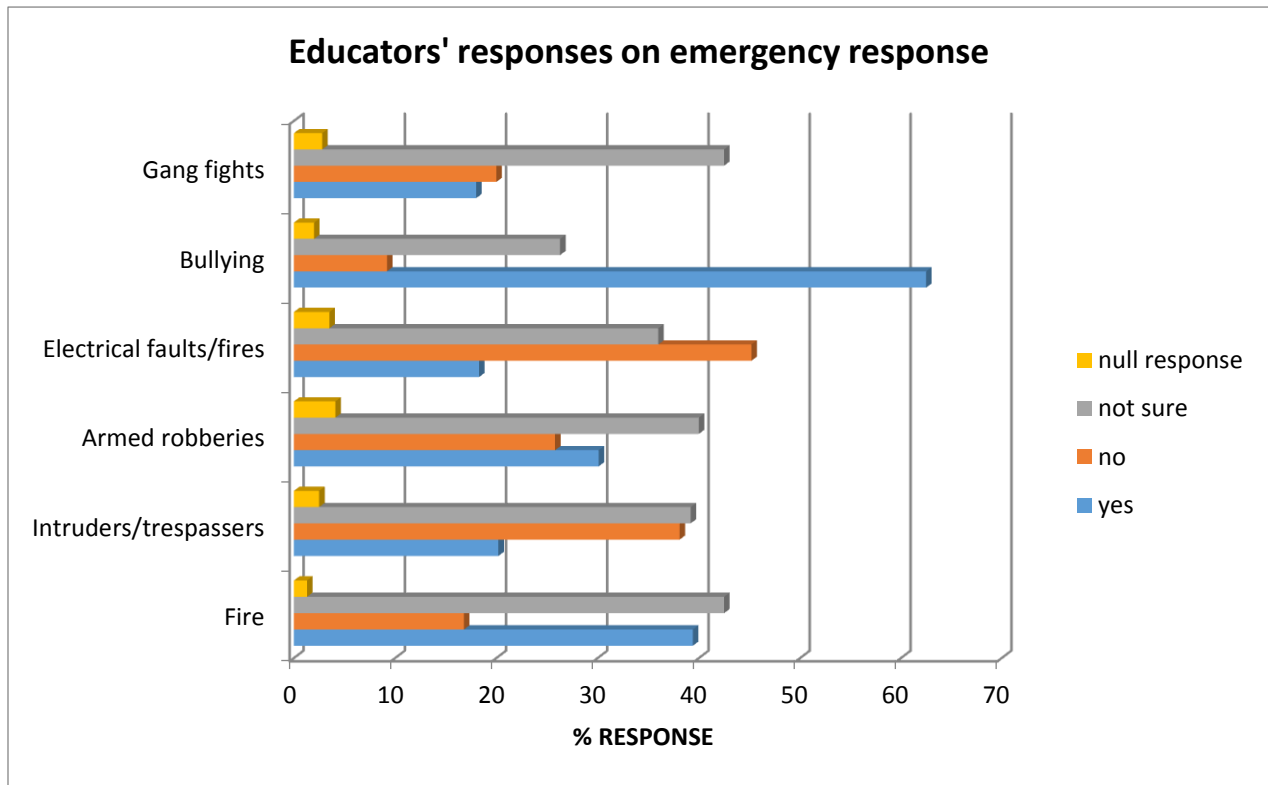
As depicted by figure 4.6 above, only bullying seems to be the most known emergency on how to respond to it. A vast number of learners similarly indicated that they know what to do in case of bullying (71.5%) and in case of gang fights (68.2%). Most schools do have disciplinary committees to deal with bullying issues, immorality and other delinquencies. This is supported by majority of the responses on an open ended question sought to probe if schools do have school behavior safety programmes where most educators cited the presence of disciplinary committees in their schools to deal with undisciplined and misbehaved learners.

More so, a sizeable number of respondents from both educators and learners also noted that their schools engage the police in issues of abuse and misbehavior. Indeed, stakeholder involvement is an important and essential component in safety and security of staff and learners. In response to open ended questions to what actions they take in case of emergencies, a couple of learners noted that they use fire extinguishers or call emergency hotline. However, a lot needs to be done in the case of intruders, fires, electrical faults and armed robberies since most educators and learners do

not know how to respond to them. These hazards could result in fatalities, loss of property, lost time injuries and serious accidents if no response plans are put in place.

Figure 4:12 Data from learners on whether staff and learners know how to respond to the following emergencies
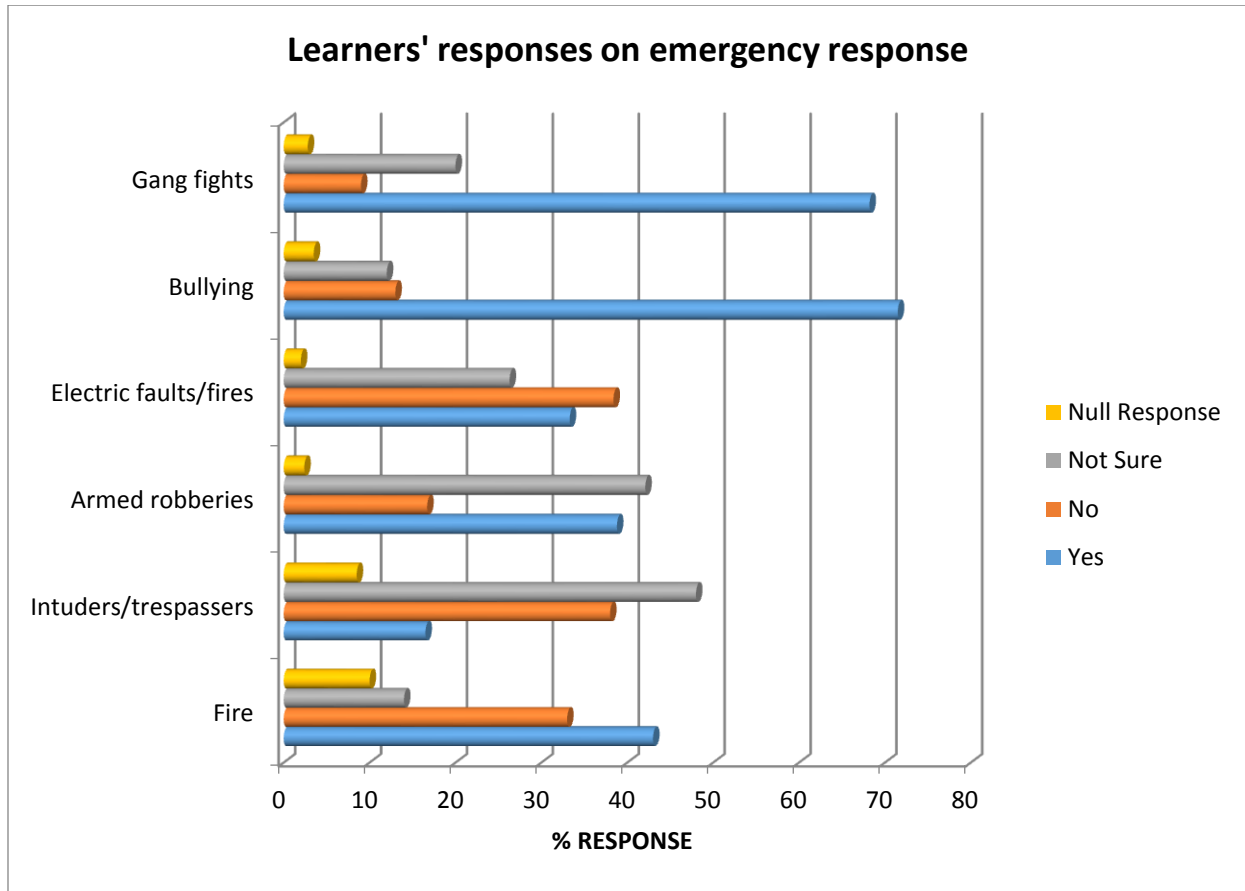
With regards to electric faults for example, quite a significant number of respondents (learners) (38.4%) indicated that they were not sure on how to respond to electrical faults while 33.3% responded that they know and 26.3% of the learners were not even sure on this emergency response. A null response accounted for 2%. This statistics is also similar to that on fire where 33% responded that they do not know how to respond to fire while 14% were not sure and a null response of 10%. Although majority indicated that they know the response action, the other three responses are worrisome. This could imply that most learners do not even know the procedures signifying lack of safety education and unavailability of displayed procedures in various points

of schools as noted earlier on. Most schools do not have emergency response plan and procedures in place.

Figure 4.13 Additional data from educators and learners on systems and procedures
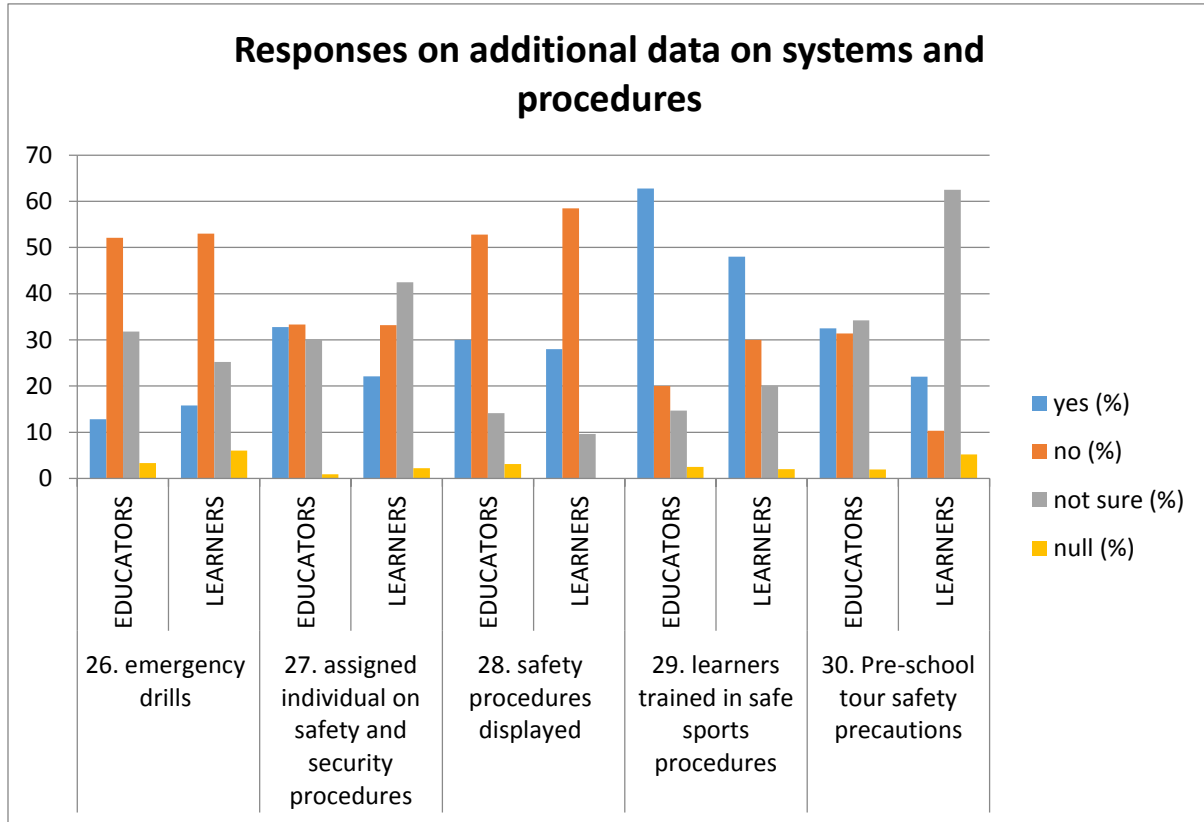
As depicted by figure 4.13 above, the majority of the respondents (52.1%) for the educators and (53%) for the learners indicated that emergency drills are not held regularly, while 12.8% of respondents (educators) and 15.8% (learners) indicated that emergency drills are held regularly and 31.8% of respondents (educators), 25.2% (learners) were not sure. Taken together, 'no' responses and 'not sure' responses, this suggests that emergency drills are not conducted in most secondary schools. Probably, few schools that do this are the boarding schools that accommodate learners at their schools as boarders. This finding confirms findings in relation to question about the issue of trespassers and intruders in the schools that was discussed earlier. All this clearly denotes that staff and learners are at greater risk of hazards, accidents and other safety threats that requires a coordinated emergency system. It is highly likely that in case of emergency, many people will not be able to understand the communication and act immediately.

Of all the respondents (educators), only 32.8% indicated that there is an individual responsible for overall safety and security procedures while 22.1 of the learners shared the same sentiment. These are too small a number considering that safety and security is part and parcel of the overall teaching and learning process in schools. Similarly, the majority of the learners (42.5%) were not even sure if that person exists. On whether schools do have health clubs, majority of respondents cited that they do have health clubs in their schools. This implies that safety is neglected and not given same attention as health in secondary schools yet safety, health and environment make up one management system. As depicted, safety procedures, precautions and responsibility is not given attention. All these items scored less than 50% of positive frequency count and a substantial number of respondents were not sure if such systems and procedures are existing in their schools.

The above findings in totality indicate that most secondary schools in the district do not have safety systems and procedures in place. Nhapo (2006) echoed having an assigned individual responsible for safety and security procedures is an important component of safety that ensures that activities are coordinated from a specific point of responsibility. He observed from his study that procedures for emergencies seem not to be known by staff and learners, a finding which has also been made in this study. This is a clear indication that safety and security issues at schools are addressed as the need arises and are not part of a well-planned, coordinated and comprehensive stakeholder-induced and produced effort (Nhlapo, 2006). This study revealed that most schools hardly do have responsible personnel dealing with safety and security matters of the school. In particular, the Emergency Management Team provides its schools with directives for common safety protocols along with guidance on how to tailor these protocols to a particular school's needs (Massachusetts Task Force, 2014).

The physical environment forms part of the school's social ecology (Nhlapo, 2006). Its safety and security is complemented by the psychosocial environment. The next section therefore deals with the item analysis of data on the school's psychosocial aspects of school safety.

4.5 PSYCHOSOCIAL ENVIRONMENTS OF SCHOOLS

The psychosocial aspect of school environmental safety relates to those aspects that have a bearing on the psychological well-being of the school, in terms of both learners and staff. A safe and secure psychosocial environment is one that is free from negative behaviours such as discrimination, bullying, violence, all forms of harassment and punishment and instead, enhances self-esteem, fosters co-operative, caring and respectful behaviours, promotes respect for individual differences and cultural traditions and fosters relationships and communication among the school management, staff and learners (*Voices & Choices*, 2003).

Table 4.6 below depicts data on the psychosocial aspects of the school environment.

4.5.1 PSYCHOSOCIAL STATUS OF SCHOOLS SAFETY

Table **4.3** Data on the psychosocial aspects of schools' safety

Questions	Respondents	Yes (%)	No (%)	Not sure (%)	Null response (%)
28. Is corporal punishment completely eliminated at your school?	*EDUCATORS*	52.5	33.8	10	32.7
	LEARNERS	8	82.4	9.6	-
29. Are there procedures for dealing with incidents of verbal abuse?	*EDUCATORS*	58.2	12.8	26	3
	LEARNERS	61	22.3	10.5	6.2
30. Are there procedures for handling physical abuse, bullying and fighting?	*EDUCATORS*	60	11.2	25	3.8
	LEARNERS	65	15	18.8	1.2
31. Does the school offer counselling sessions in cases of abuses?	*EDUCATORS*	60.5	20	18.2	1.3
	LEARNERS	88.2	10.5	1.3	-
32. Are there trained counsellors available for troubled learners?	*EDUCATORS*	42.5	30.8	25	1.7
	LEARNERS	35.8	23.7	38.2	2.3
33. Is there an education programme for dealing with substance abuse and sexual abuse?	*EDUCATORS*	40	19.8	36.6	3.6
	LEARNERS	62	15.3	17.4	5.3

The above findings clearly show that corporal punishment is existent in most secondary schools. Majority of respondents (82.4%) of the learners disagreed that corporal punishment has been completely eliminated in their schools, while only 8% indicated that it has been completely eliminated and 9.6% were not sure. This is worrisome because it is against the law of Zimbabwe's education sector. Corporal punishment eliminates the psychosocial safety of

learners (Walk Bike, 2013). It is likely that a significant number of educators (52.5%) who indicated that corporal punishment is completely eliminated responded so to safeguard themselves against the known legal frameworks in this regard. On a sad note, in open responses to what rights do they (learners) deserve in schools, majority cited right to education and only few respondents additionally cited right to a clean and safe environment. This clearly shows that most learners are vulnerable to health and safety hazards.

On whether schools do have trained counsellors for troubled learners, sadly, less than half (50%) of the respondents from both educators and learners responded that they do have trained counsellors in their schools. A substantial number of respondents indicated that they do not have trained counsellors for instance 30.8% of the educators while a significant number of learners (38.2%) and educators (25%) were not sure. It is justifiable for learners being not sure since records of this nature on training are usually known to staff, administrators and the employer. Nevertheless, the findings clearly give the picture that most schools do not have trained counsellors although counselling sessions are said to be done. The pleasant characteristic for many school however is that counselling sessions are taking place in secondary schools. This quite important as it counselling offers learners ability to deal with issues of abuses and issues of HIV/AIDS which has exposed many school children at risk and more vulnerable.

With regard to the availability of programmes aimed at helping to prevent incidents of sexual abuse and substance abuse (Question 33), 62% of the respondents from the learners indicated having these programmes, while the combined number of 32.7% indicated being unsure and not having such programmes. On the other hand, majority of the educators (40%) also indicated that these programmes are available in their schools. The variation in responses on 'yes' between the educators and the students could be that educators considered only formalised educational programmes. 19.8% of the educators indicated that there are no of such programmes while 36.6% were not sure while 3.6% accounted for a null response. In open response to the name of the programmes if available, a significant number of respondents from educators (30%) cited external programmes brought by other organisations for example 'Regai Dzive Shiri' and other civil society organisations to conscientise and advocate for psychosocial safety on school children. However, most schools need to pay attention to formalized programmes to address schools' psychosocial environmental safety aspects.

The findings on the psychosocial environmental aspects of schools safety show a better status on most secondary schools than the physical environmental aspects of schools safety. There is a sign of coordinated systems to deal with issues of bullying, and abuse through counselling. Probably, this is because safety management in this regard is relatively cheaper in terms of cost of resources as compared to safety management on physical components of school safety. Similarly, in his study, Nhapo (2006) concluded from his findings that schools do handle and deal with issues pertinent to these aspects. He observed that however, what seem to be amiss are coordinated systems to deal with them as well as counselling personnel for troubled learners. Clearly, schools should focus on formalising attempts to facilitate advocacy and sensitivity to these issues as well as ensure that there is stakeholder involvement in designing solutions to problems associated with these aspects.

However in this study, it was found out that most schools do not have trained counsellors and formalized education programmes to conscientise learners on psychosocial safety threats and management. Clearly, schools should focus on formalising attempts to facilitate advocacy and sensitivity to these issues as well as ensure that there is stakeholder involvement in designing solutions to problems associated with these aspects. Although the two studies were carried out on different levels institutions that is in primary schools and secondary schools (for this study), similarity of results imply that issues of human rights system are internationally recognized and given more attention especially to school children. Psychosocial issues are mostly addressed to accommodate differences among learners' race, nationalities, cultures, and promote peaceful and safe learning environment against psychosocial safety threats.

4.6   CHAPTER SUMMARY

This chapter presented findings that addressed the main objective of the study through the statistical analysis and interpretation of data on each objective from educators and learners and from participant observation. This recent study gives a conclusion that the current status of school safety in secondary schools needs improvement in terms of purposeful, formalised and stakeholder-inclusive approaches and programmes. Of critical concern is school safety planning. Safety aspects seem to be neglected and therefore no real planning takes place towards it in most secondary schools. The next chapter presents the summary, findings and recommendations of this study.

CHAPTER 5:   CONCLUSION AND RECOMMENDATIONS

5.1   CONCLUSION

The findings of this study have led to the following conclusion on the current status of safety in secondary schools:

5.1.1 *Hazards prevailing in schools*

Like any other workplace, schools also harbour quite a number of hazards that are disastrous to the learners, staff members and their families as well the visitors. Common hazards in secondary schools emanate from laboratories, sports activities, transport, school gardens, surrounding areas (veld fires), classrooms and also social interactions among others. It seems sports activities is the most common source of injuries and accidents especially to the learners in most schools. In spite of all these dangers and risks learners, educators and visitors are exposed to, planning and management of these hazards is so minimal in schools.

5.1.2 *Management aspect of school safety*

Findings on this aspect indicate that generally there is poor management of safety in schools. In fact, the starting point is that most schools do not even have school safety committee SSCs) which implies that safety management practices are not in existent and where they are available are done haphazardly. There are no coordinated systems of safety management in schools, neither do schools have assigned individuals responsible to deal with safety and security matters of schools.

5.1.3 *Maintenance aspect of school safety*

Generally, most schools are relatively well-maintained. Vast responses were affirmative on items in this category. However, while generally well-maintained, most schools do not have coordinated maintenance systems in place which can attributed to poor planning and negligence. Maintenance could be done as a matter of course, rather than on a predictive, preventive and routine classification. It must be conceded, however, that this component of safety could be further explored in terms of facilities maintenance, which is deemed beyond the scope of this research.

5.1.4 *Surveillance aspect of school safety*

From the overall findings on this aspect, it seems surveillance of school's physical environments does need more attention especially on constant monitoring of main entrance, visitors' parking and surveillance procedures. All these items scored a low frequency count. While to a certain degree some secondary do have good surveillance systems and procedures, this is not done in a conscientious, purposeful and outcome-based manner. Clearly, there is generally poor surveillance of school environments in most schools

5.1.5 *Systems and procedures*

From findings in this regard, it can be concluded that schools do not have operational safety systems and procedures. Where the procedures are there, it seems they are not efficient and effective. Drill exercises scored a very low frequency count indicating that the drills are not done. Additionally, learners and staff do not know how to respond to emergencies like fire, armed robberies and electric faults to mention a few. There are no coordinated emergency control and response systems making school personnel at high risk of these dangers. Procedures for emergencies seem not to be known by staff and learners Lack of emergency procedures could be attributed to inexistence of responsible safety and security personnel, negligence, and flexible policy in the education sector or poor management. This gap calls for a further exploration on this component.

5.3.2.5 *The psychosocial aspects of school safety*

Generally, the psychosocial aspects of schools safety are relatively getting more attention and advocacy in most secondary schools. Counselling sessions are held, procedures for dealing with incidences of unwanted behaviours like bullying, substance abuse and sexual violence are there. What is not clear is whether there are formal procedures. Positively, most schools also engage police to maintain order and discipline. There was a relatively higher positive frequency count on this component as compared to the physical aspects of school safety. However, corporal punishment is still being practiced in most secondary schools. Sadly, the current regulatory and legislative framework in the education sector in Zimbabwe does not allow that as the law recognises the psychosocial safety of the learners. Generally, the conclusion is that systems for

dealing with aspects of the psychosocial environment were not in place as part of comprehensive school safety and security planning and implementation strategies.

5.2   RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

5.2.1 To the State

- The government through the ministry of primary and secondary education should seriously include issues of safety and security in schools' curriculum. Schools safety should be a national concern. Secondary Schools Inspectors are thus given responsibility to monitor and evaluate beyond academic to safety.
- There is need for a health, safety and environmental agency particularly to deal with issues of safety and security in the education sector. Similar studies proved that safety is not given equal attention to other components of the education sector in primary, secondary and tertiary institutions. The Agency should also have a funding facility on health and safety of schools.
- Policies in the education sector should extend beyond corporal punishments to adherence to safety and security in schools. The human rights system should incorporate issues of safety on physical schools' environment and not only psychosocial safety.

5.2.2 To the Schools

- School Administrators should include safety and security in their strategic planning, and security, engage all stakeholders and improve on advocacy of safety
- There is a need for a coordinated school safety agency as a part of the department of education's functions.
- School heads should advocate for training of teachers on Guidance and Counselling as well as Safety and Security Management as this would also benefit them in lifetime.

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ANNEXURE A: QUESTIONNAIRE FOR EDUCATORS

COVER LETTER

Dear Colleague

Schools, educators and learners face a number of economic, social and physical problems in the teaching and learning process. One of these problems concerns their health and safety. A number of reports have been made in Bikita district and beyond of learners, teachers and even visitors of school premisis being involved in accidents, injuries fatalities and various forms of abuses. Thus the researcher embarked into a study on safety management in secondary schools in Bikita District. Establishing the status of safety in the psychosocial and physical school environments certainly will help the researcher to recommend some corrective strategies to the relevant authorities and improve health and safety within the education sector.

I am engaged in a study on 'Safety Management in Secondary Schools in Bikita District'. I therefore request you to assist me in this research project by completing the accompanying questionnaire. Your honest and genuine responses will be greatly appreciated.

Your anonymity is guaranteed and please **DO NOT** write your name and name of your school. More so, the information you provide shall be used strictly for the purpose of this research, as such no part of this questionnaire will be used by anyone else or for any other purpose.

This should take about 15 minutes to complete. Thank you in anticipation for your co-operation

Mr Mando E.K

+263 735 404 802/ 772 244 193

 (Email: *ernestkmando@gmail.com*)

❖ *Please indicate your response to the following items with a tick (√) and where it is no applicable indicate 'N/A'.*

❖ *Use space provided for your response/s to open ended questions*

SECTION A: GENERAL INFORMATION

1. Your gender	Male ☐	Female ☐

2. Your age   20-30 ☐   31-40 ☐

                  41-50 ☐   51+ ☐

3. Your teaching experience in years   0-10 ☐   11-20 ☐

                  21-30 ☐   31+ ☐

4. Your current position   Educator ☐   HOD ☐

                  Deputy ☐   Head ☐

5. Number of learners in school   0-400 ☐   0-800 ☐

                  0-1200 ☐   above 1200 ☐

6. Number of staff members   10-20 ☐   21-30 ☐

                  31-40 ☐   above 41 ☐

7. The location of your school   Near Township ☐   Isolated ☐   near a Growth Point ☐

8. Type of School   Boarding ☐   Day ☐

SECTION B: STATUS OF SAFETY IN SCHOOLS

QUESTION	YES	NO	NOT SURE
Is there a school safety committee?			
Does the school has a school safety policy?			
Were all relevant stakeholders consulted in drafting school safety policy?			
Do learners, visitors and staff know how to respond to the following emergencies:			
Fire?			
Trespassers/intruders?			
Armed robberies?			
Electrical failures/faults?			
Bullying?			
Gang fights?			
Does the school hold emergency drills like fire drills at your school?			
If yes, how often?			
Is there an emergency team to implement and evaluate emergency plans?			

State the accidents or hazards that you have encountered at your school and their sources			
Is there an incidents register to record any safety infringements and accidents?			
In case of an accident or hazard, what immediate actions do you take?			
Are violations of the law reported immediately to the police and the department?			
Are hazards identified and risks analysed to establish trends of common school safety problems?			
Are staff and learners trained in safety management?			
Is there an assigned individual responsible for overall school safety and security procedures?			
Is the main entrance always monitored and offers security?			
Do shrubs and trees allow good visual surveillance of all areas of the school?			
1s there regular surveillance and monitoring of all school areas?			
Is access to electrical boxes and connections restricted?			
Is the perimeter of the school properly fenced'?			
Do all doors have locks that are in working condition?			

Is there a system for of waste management?			
Are school buildings clean and well maintained?			
Is the visitors' parking clearly marked and demarcated?			
Can parking areas be monitored by school staff?			
Are entrances and exits clearly demarcated and marked?			
Are toilets easily accessible and visible to staff, visitors and learners?			
Are there procedures for dealing with unauthorized persons on school property?			
Are there safety procedures displayed in every department of the school?			
Are signs concerning visitors and trespassing properly displayed at entrances and other strategic points of the school?			
Are there systems for communicating emergencies available and in working order?			
State the device/s the school uses for communication?			
Are members of staff trained in First Aid?			
Is corporal punishment completely eliminated from your school?			
Is there an education programme in safety and security awareness?			
What school behaviour based safety programs do the school have to promote safety?			

Are there procedures for handling incidents of verbal and non verbal abuse?			
Are there procedures for handling incidents of physical and psycho-social abuse?			
Does the school offer counselling sessions in cases of abuses?			
Is peer mediation for learners used?			
Are there trained counselors available for troubled learners?			
Is there an education programme for dealing with substance abuse?			
If no, what could be the reason for not having such programmes?			
Is there diversity training to encourage an understanding with those of other races, gender, cultures and sexual orientation?			
Are there programmes to help prevent sexual violence?			
If yes, what programmes are there to help preventing sexual violence and other forms of abuses?			
Are learners supervised at the playgrounds?			
Are learners trained in safety procedures on sports activities?			
Are safety precautions taken before learners travel on school business?			
In your own view, is safety considered important and given more attention in schools by learners, educators and the Ministry?			

ANNEXURE B: QUESTIONNAIRE FOR LEARNERS

COVER LETTER

Dear Colleague

Schools, educators and learners face a number of economic, social and physical problems in the teaching and learning process. One of these problems concerns their health and safety. A number of reports have been made in Bikita district and beyond of learners, teachers and even visitors of school premises being involved in accidents, injuries, fatalities and various forms of abuses. I am carrying out a study on 'safety management in secondary schools in Bikita District. I therefore request you to assist me in this research project by completing the accompanying questionnaire. Your honest and genuine responses will be greatly appreciated.

Your anonymity is guaranteed and please DO NOT write your name and name of your school. More so, the information you provide shall be used strictly for the purpose of this research, as such no part of this questionnaire will be used by anyone else or for any other purpose.

This should take about 15 minutes to complete. Thank you in anticipation for your co-operation

Mr Mando E.K

+263 735 404 802/ 772 244 193

 (Email: *ernestkmando@gmail.com*)

DO NOT WRITE YOUR NAME

> *Please indicate your response to the following items with a tick (√) and where it is no applicable indicate 'N/A'.*

> *Use space provided for your response/s to open ended questions*

> *Please note that your teachers can help clarifying on certain questions should you not understand them*

SECTION A: GENERAL INFORMATION

1. Your gender   Male ☐   Female ☐

2. Your age (in years)   15 and below ☐   16- 20 ☐

                                      21 and above ☐

3. Level of education   ZJC ☐   O'LEVEL ☐

                                 A'LEVEL ☐

4. Size of your class   10 and below ☐   11-20 ☐

                               21-30 ☐   31 and above ☐

5. Type of School   Boarding ☐   Day ☐

SECTION B: STATUS OF SAFETY IN SCHOOLS

QUESTION	YES	NO	NOT SURE
Have you ever witnessed injuries, accidents or hazards at your school from			
i) laboratories			
ii) sports			
iii) classrooms			
iv) social interactions			
Any other, state			
What safety management practices are used to address these hazards in your school?			
Is there a safety committee at your school?			
Does the school has a school safety policy?			
Were all relevant stakeholders consulted in drafting school safety policy?			

Do learners, visitors and staff know how to respond to the following emergencies:			
Fire?			
Trespassers/intruders?			
Armed robberies?			
Electrical failures/faults?			
Bullying?			
Gang fights?			
Does the school hold emergency drills like fire drills at your school?			

If yes, how often?

Is there an emergency team to implement and evaluate emergency plans?			

State the accidents or hazards that you have encountered at your school

Is there an incidents register to record any safety infringements and accidents?			

In case of an accident or hazard, what immediate actions do you take?

Are violations of the law reported immediately to the police and the department?			
Are staff and learners trained in safety management?			
Is there an assigned individual responsible for overall school safety and security procedures?			

Is the main entrance always monitored and offers security?			
Do shrubs and trees allow good visual surveillance of all areas of the school?			
1s there regular surveillance and monitoring of all school areas?			
Is access to electrical boxes and connections restricted?			
Is the perimeter of the school properly fenced'?			
Do all doors have locks that are in working condition?			
Is there a system for of waste management?			
Are school buildings clean and well maintained?			
Is the visitors' parking clearly marked and demarcated?			
Can parking areas be monitored by school staff?			
Are entrances and exits clearly demarcated and marked?			
Are toilets easily accessible and visible to staff, visitors and learners?			
Are there procedures for dealing with unauthorized persons on school property?			
Are there safety procedures displayed in every department of the school?			
Are signs concerning visitors and trespassing properly displayed at entrances and other strategic points of the school?			
Are there systems for communicating emergencies available and in working order?			
State the device/s the school uses for communication?			
Are members of staff trained in First Aid?			
Is corporal punishment completely eliminated from your school?			
Is there an education programme in safety and security awareness?			
What school behaviour based safety programs do the school have to promote safety?			

Are there procedures for handling incidents of verbal and non verbal abuse?			
Are there procedures for handling incidents of physical and psycho-social abuse?			
Does the school offer counselling sessions in cases of abuses?			
Is peer mediation for learners used?			
Are there trained counselors available for troubled learners?			
Is there an education programme for dealing with substance abuse?			
If no, what could be the reason for not having such programmes?			
Is there diversity training to encourage an understanding with those of other races, gender, cultures and sexual orientation?			
Are there programmes to help prevent sexual violence?			
If yes, what programmes are there to help preventing sexual violence and other forms of abuses?			
Are learners supervised at the playgrounds?			
Are learners trained in safety procedures on sports activities?			
Are safety precautions taken before learners travel on school business?			
In your own view, is safety considered important and given more attention in schools by learners, educators and the Ministry?			
If no, what could be the reason/s?			

ANNEXURE C: OBSERVATION CHECKLIST

QUESTION	YES	NO
Does the school has a school safety policy?		
Is there an incidents register to record any safety infringements and accidents?		
Is the main entrance always monitored and offers security?		
Do shrubs and trees allow good visual surveillance of all areas of the school?		
Is the perimeter of the school properly fenced'?		
Do all doors have locks that are in working condition?		
Is there a system for of waste management?		
Are school buildings clean and well maintained?		
Is the visitors' parking clearly marked and demarcated?		
Can parking areas be monitored by school staff?		
Are entrances and exits clearly demarcated and marked?		
Are toilets easily accessible and visible to staff, visitors and learners?		
Are signs concerning visitors and trespassing properly displayed at entrances and other strategic points of the school?		
Are learners supervised at the playgrounds?		
Are safety precautions taken before learners travel on school business?		

ANNEXURE D: REGRESSION SUMMARY OUTPUT

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.28181387							
R Square	0.079419058							
Adjusted R Square	0.033675905							
Standard Error	0.474571129							
Observations	170							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	8	3.128176528	0.391022066	1.736195548	0.093741283			
Residual	161	36.26005877	0.225217756					
Total	169	39.38823529						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1.46	0.26	5.63	0.00	0.95	1.97	0.95	1.97
school safety committee	0.00	0.10	-0.04	0.97	-0.20	0.19	-0.20	0.19
signage	-0.05	0.04	-1.33	0.19	-0.14	0.03	-0.14	0.03
HIRAs	-0.02	0.04	-0.50	0.62	-0.10	0.06	-0.10	0.06
first aid training	0.14	0.06	2.28	0.06	0.02	0.26	0.02	0.26
safety training	-0.04	0.06	-0.72	0.47	-0.16	0.08	-0.16	0.08
incident registers	-0.08	0.05	-1.72	0.09	-0.17	0.01	-0.17	0.01
emergency team	0.05	0.06	0.93	0.35	-0.06	0.16	-0.06	0.16
Learner supervision on playgrounds	0.02	0.05	0.36	0.72	-0.08	0.11	-0.08	0.11