

## Human Contrived Disasters in Public Secondary Schools: A Case Study of Public Secondary Schools Principals in Nigeria

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### Abstract

*This study investigated human contrived disasters: A case study of public secondary schools principals in Nigeria. Two schools were used to represent other schools in Nigeria. One research question and one hypothesis guided this study. Descriptive research survey design was used for this study. One research question and one hypothesis guided this study. The population of this study is 5000 which comprised 2,500 male students from government college Owerri and 2,500 female students from development secondary school Owerri. The sample size of this study is 130 obtained by collecting samples of 65 males and 65 female students from the two schools using stratified random sampling technique. Researcher developed questionnaire “titled human contrived disasters: A case study of public secondary schools principals in Nigeria” was used. The instrument was validated by two experts from Madonna University Anambra state. Reliability coefficient of this study was ascertained using Cronbach alpha and coefficient of reliability indices were 0.87 and 0.97. Mean and standard deviation were used to analyze the data, independent t- test was used to test the hypothesis at 0.05 alpha level. It was suggested that this study should involve private secondary schools in Nigeria. This would enable private secondary schools get ready to provide solutions to disasters cases in Private secondary schools in Nigeria.*

**Keywords:** Disasters, Human contrived disasters, Bad Conditions.

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### Introduction

Disasters have been occurring persistently on human beings and their ecology for many decades ago, till this present generation. Disasters occurs frequently in this new age as a result of evolving technology and industrialization. Its occurrence in this present generation has increased thus, causing palpable fears. Disasters are deadly occurrences that devastates, injure and cause human deaths. Man-made or human contrived disasters as they are widely called, are caused by human carelessness or bad wishes of unscrupulous

individuals in various spheres of human existence. Disasters do not only destroys human beings, by extension, disasters destroys both human, plants and animals ecology (Peek- ASa O e tal 2010). Human contrived disasters are deadly phenomenon, devastating and causing human deaths in both public and private homes, organizations in developing and developed countries of the world. Apart from the natural disasters caused by climate change. Human contrived disasters have caused human sudden deaths and devastations in many public sectors. They are usually caused by human carelessness. On the other hand, disaster man –made disasters

is premeditated to cause human deaths in their ecology (World disaster report 2011).

Majority of human contrived disasters are carried out by an individual to acquire ownership of properties or to deal blows to opponents in disputes or disagreement. Human or man-made contrived disasters are carried out on grudges an individual or individuals may have for being cheated or deprived of properties or positions in families, private or public sectors. Various scenes where disasters have occurred are contrived or done by act of wickedness, man inhumanity to their fellow human beings (Paulina e.tal, 2010). Man-made or human contrived disasters have rendered many families homeless, jobless and hopeless. They have caused people to live as refugees in another states. The saddening effects of man contrived disasters have caused people to cohabit in internally displaced camps. Some people, who cannot withstand these ordeals, flee to the streets begging alms for survival. Various scales of human contrived disasters have caused clampdown on public and private businesses. The effects caused by disasters have caused billions of dollars and naira to offset. Human contrived disasters are also known as anthropogenic disasters.

### **Trauma or Bad Conditions Caused by Human Contrived Disasters in most Countries of the World**

Human contrived disasters have caused survivors into several traumas, ranging from body disfigure, psychological trauma, tantrums, rejections and all manner of regressive tendencies both physical, psychological, social and economic rejections (American public health Association 1996). Human contrived disasters have caused many survivors into untold hardship ranging from famine,

starvation, joblessness and poverty, because of financial and nonfinancial resources lost during the mayhem of human contrived disasters. Human contrived disasters have caused misunderstandings between business men and their partners. Human contrived disasters have been a reoccurring decimals in developed and developing countries of the world. Disasters especially, man-made ones, have reared their ugly heads in different countries of the world, popular Usmar Bill laden bad wishes on U.S.A commercial center in the past is example of human contrived disaster. During occurrence of any disaster, many people lost their lives and their properties destroyed or scattered (Red Cross / Red Crescent, 2006b). The anomalies caused by human contrived disasters are not easy to come by or overcome. It has caused many families to lose their lives while some families that survived the trauma lose their loved ones (Fema, 2006b). These have thus, kept some families into constant regrets.

Financial and psychological effects of mayhems caused by human contrived disasters have continued to echo and re-echo badly on people. Some people that are badly affected in their businesses have sought for government and non-governmental assistance (IPCC, 2019). Human contrived disasters occurs in the broad day lights or nights when people are aware most especially, when people are not aware (Adeyinka, 2005). It is obvious that where disaster has occurred, there are numbered of casualties observed and recorded. Those whom their cases are very severe are sent to the hospital for treatment, some that sustained serious casualties or badly injured with wounds are treated. Sometimes, affected individuals remained casualties forever (Chris 2016). Some that could not persevere with the injuries they sustained die off and their bodies are sent to the

morgue and buried later. In Nigeria for example, human contrived disasters such as those caused by banditry as a result of sporadic shootings, bank robbery, and unknown gun men agitation for safe government are issues that have continued to truncate the lives of many in Nigerians. On the other hand, vast array of human contrived disasters include: firing cannons, tankers explosions, bush burning, careless inhalation of poisonous chemicals, industrial smokes, vehicles bad exhaust fumes, generators bad exhaust fumes, cooking gas explosion, bad electrical wirings, over plugging on low quality or low capacity electrical sockets (Foley, 2005) among others. Stories that come up after human contrived disasters have occurred are not pleasing or agreeable to ears and eyes that sees and hears about them.

### **Human Contrived Disasters in Public Secondary Schools**

Disasters, whether caused by human beings or natural factors are indispensable where human beings takes refuge or have commercial businesses. It is obvious that 99% of human contrived disasters are controlled by human beings that are specially trained to forestall their occurrences (Fema, 2006a).

Human contrived disasters occurs in public secondary schools premises. Vast array of human contrived disasters include: Accidents caused by careless driving of motorists, motor cyclists, bush burning, sporadic shooting by cult boys and girls, bank robbery very close to public secondary schools premises, poor electrical wiring, faulting sockets used by students and lecturers to plug phones. On the other hand, diseases such as severe coughs, hiv, aids, covid -19, small pox, Lassa fever, severe dysentery can get transmitted to students if they are not carefully handled (Gebbie, 2002), In the

same vein, laboratory gas explosions near school compounds, student use of lethal weapons during misunderstandings, careless inhalation of poisonous chemicals and smokes affects asthmatic and ulcer students. In the same vein, careless use of fuels to start generators, indiscriminate gun firing constitutes disaster. It is very obvious that many students' lives are lost in public secondary schools when disasters occurs. However, wreckages on school buildings due to substandard building materials, laboratory gas explosions, are disasters encountered in public secondary schools. Both man- made and natural disasters endangers human lives (Miler 2000 & Udo 2015). It is very saddening that most of these human caused disasters are very imminent, though, teachers and students actually do not know when these human caused disasters can occur.

### **Human Contrived Disasters Mitigation by Public Secondary Schools Principals**

Public secondary schools principals are aware that disasters will occur and therefore establish different management strategies to forestall the occurrence of human contrived disasters in public secondary schools.

Disaster management strategies are used by public secondary schools principals for mitigating the impacts of disasters in public secondary schools. Public secondary schools Principals use approved local and modern methods of reducing human disasters in public secondary schools. Hornby (2010) sees principal's management strategies as activities performed by public secondary schools principals and other school heads in Nigeria. Those strategies include: Planning, organizing, directing, coordinating and control of school businesses. Principal's management strategies are the way and manner public secondary

schools principals shapes secondary schools activities for achievement of public secondary schools goals. These management strategies are important for effective secondary schools management. Glos (1976) & Light (1981) defined management strategies as the process of planning, organizing, directing, coordinating, staffing, commanding, communicating, motivating, representing and innovating geared towards the achievement of goals in organizations. Uche & Okoli (2006), identified that school heads, as a matter of administration, must carry out specific administrative functions especially in public secondary schools to improve teacher's quality with the utilization of available education resources for the achievement of the goals of public secondary schools in Nigeria. Principals like any other heads of an institution must continuously strive for a standardized education in secondary schools especially, in public secondary schools. Onuma (2016) defined principal management strategies as the provision of conducive environment for education, and enhancing quality leadership that develops teacher's and students commitment to effective teaching and learning. Little wonder, Omemu (2017) sees management strategies of principals in public schools as strategy concerned with shaping public schools in the right direction for achieving the set goals of secondary schools education. Principal's management strategies are planning strategy, organizing strategy, directing strategy, coordination and control strategy. Other management strategies of public secondary schools principals include: communication strategy, budgeting strategy, decision making strategy and supervision strategy. Principals' management strategies are pertinent for achievement of set goals and objectives of secondary schools.

Generally principals management strategies in public secondary schools include establishing and communicating high expectation in the lives of students: Helping students to develop sound moral rectitude through obedience to public secondary schools rules and regulations, engagement of students on public secondary schools wide responsibilities or commitments, encouraging all teachers to participate in all university events, increasing lecturers / vice chancellors interactions Jeferson in Onuma (2016). Responsibilities of public secondary schools principals are similitude to principal's management strategies used in private secondary schools that hinged on provision supportive instructional supervision in the classrooms, monitoring students misdemeanors in the school environment, providing teachers and student's welfare services, counseling, supervision and students career planning. Public secondary schools principal's management strategies enable teachers to perform maximally during teaching and learning transactions in classrooms. Supervision as one of the principal's management strategies is used by principals, to ensure quality control through regular and continuous monitoring of instruction and other educational services (FRN, 2004). Principal's management strategies not only enable teachers to put in their best, but enable teachers to showcase professional values. Public secondary schools management strategies helps in subordinating teachers' personal interest to the general interest of public secondary schools as organizations provided for effective teaching and learning.

Principals management strategies in public secondary schools include: planning, organizing, directing, coordinating, staffing , communicating and control of teachers, students, equipment's and facilities for the

realization of the goals of secondary schools Akpakwu (2012). In a piece mill, principal's management strategies include:

**Planning:** This means the process of assessing the future and making decisions for the sake of education of the future generations.

**Organizing:** Means the division of work, allocation of duties, authority and responsibilities to teachers and students in the school.

**Directing:** Involves guiding and supervising subordinates (teachers) towards improved performance.

**Coordinating:** Coordination is the unification of effort and ensuring that all activities of schools are pursued with the policies provided by state and federal ministries of education in Nigeria.

**Staffing:** Ensures that teachers are recruited with requisite qualification and posted to strategic areas of the public secondary schools where their responsibilities can be ensured in schools.

**Command:** Means the giving out of instructions by principals and ensuring that the instructions are carried out by teachers and students.

**Communication:** This is the passing out of information or messages to teachers and students in the school with an accompanied feedbacks.

**Motivating:** Motivating is the process of giving driving force to encourage teachers and students effective performances through gift, awards, promotion and personal recognition.

**Representing:** This is the process of whereby the school manager brings himself closer to

communities and other stakeholders in the school through the parent teachers association formed by principals. It also include synergies created by principals with the stake holders who responds to the demands of secondary school education.

**Innovating:** Is a new or better ways of achieving goals with the teachers and students in the school, by providing changes from the old and ensuring the use of new procedures.

**Monitoring and supervision:** Monitoring and supervision are school leadership responsibilities of school administrators. School administrators plan with each other, talk with each other, about how to improve teaching and learning in the schools.

Providing quality administration in the post primary schools, entails the use of transformative, conceptual, interpersonal or human relation skills that are endearing when harnessed (Nosiri, 2017). The transformative skill of the principal is considered necessary to adopt vision in the school and the principal should ensure that those visions are shared and maintained among teachers and students in the school. Nosiri, further said that, leadership skills are associated with the intellectual stimulation of teachers and other employees of the institution in consideration of the feeling of the group as a way of improving administration in the school where every individual in the school is motivated to input positively to the set goals of the school.

Daminabo (2010) explained that through planning, the principals integrate risks and hazards policies into school programs, create alternative environment and sanctions to control misunderstandings that could results to use of harmful objects in public secondary

schools. Principal management strategies can be helpful for enhancing and creating adjustment in the school time table to pave way for lost grounds. Daminabo further stated that, through planning, organizing, directing and coordination, principals ensure effective monitoring and supervision

of teachers and students in the school to avoid deviation from the school rules and regulations, provision of good sitting arrangement in the classroom to ward off heat and suffocation, good lightening in the classroom, proper ventilation, waste management system, appropriate coordination of students sports activities to avoid riots of any kind. From the above expository it is adduced that principal's administrative strategies include all the enabling conditions put in place to foster students and teachers healthy living, morale, commitments to their responsibilities and professional development.

Principal's management strategies are therefore taken to reflect on environmental friendliness, teachers and student's welfare, school physical facilities development and maintenance (Amakiri, 2010) observed that quality education to a large extent depends on quality learning environment. Amakiri further observed that students education is predicated on the type of equipment and facilities such as laboratories, workshops, libraries, books and most especially, security, good health of teachers and students through planned policies and programs initiated by the principals in public schools, most especially, during disasters. Amakiri however, observed that, teaching and learning can be made more pleasant if the teachers and students stays pleasantly in conducive environment.

Education is can be effective, if the school environment is fit for teach (Edward, 2010). The school environment should be mineable in the sense that teachers and students are not exposed to extreme temperatures such as persistent rainfall, humid weather, high sunny weather, cold and other harsh conditions. Edward reaffirmed that, equipment for use in the classroom should not unnecessarily exposed to under extreme condition of rain or hot weather because they could lost their value. Daminabo (2010), Jones & Jones (2012) identified that principals management strategies are strategies not for the administration of the school budget alone but in managing the impacts of human disasters both on teachers, and physical facilities. Other strategies used by principals in managing the impacts of human contrived disasters in public the schools are:

1. Enactment of risks and hazards policies, readjustment of school programs or making school time table flexible to cover lost grounds as a result of disruption caused by human contrived disasters.
2. Constant supervision of teachers: This strategy ensures that teachers and students are in the classroom and not drifting into self-complacency because of human caused disasters. Appropriate disciplinary measures are instituted on those who fail to comply with laid down rules. The school authority accepts nothing less than compliance. This goes a long way in the realization of school objectives.
3. Provision of student's first aid treatment facilities: first aid treatment facilities are important medical help giving to people that sustained injuries during mayhems until the services of medical doctors are applied on them. This strategy helps to better the conditions of wounded people during disasters to avoid excessive bleedings, muscle cramps and

suffocation especially, in public secondary schools.

4 .Establishment of students and teachers clinics: After first aid treatment, the second treatment giving to an individual or group of individuals that sustained injuries in the school premises are medical treatment or services of medical professionals, especially doctors. Doctors responsible for treatment of patients and those that sustained injuries during human disasters are beckoned. Without the services of medical doctors that synergize with students and teachers many people would have died from their sicknesses, diseases and severe wounds.

5. Invitation of experts to give lectures on disasters management: experts on disaster management are invited by ministries of educations. Sometimes, experts on disaster management are invited by public secondary schools principals to advice both students and teachers on disaster management most especially, possible ways of getting rid of human contrived disasters in public secondary schools.

5. Principals ensures that students and teachers severely wounded or suffering from infectious diseases and sicknesses are referred to major hospitals in the cities. Responsibilities of school management are not only on supervision of instructions. Principals ensure the provision of medical facilities they can afford. They as well, refer severe cases to special doctors if their school clinics cannot manage the health or disaster contrived health problems.

7. School fencing: It has been observed that teachers and students leaves the school premises before the school hours, especially when they are no permitted by principals. Sometimes, some students that leaves the school premises got wounded with motor cycle, motor accidents. To check mate this, the school

administrator ensures that instructions on when to enter or leave the school environment are regulated. Those manning the gate are under serious instruction not to allow teachers and students leave before the closing school hour.

6. Formation of students club: Public school principals ensures that students club which helps in providing solution to human contrived disasters are encouraged in the school. This goes a long way to check mate human contrived disasters in public secondary schools.

7. Creating synergy with the communities surrounding the school: the school administrators synergizes with the communities surrounding the school, hold meetings with community leaders, with agendas on how to develop and get rid of disasters in their schools. This strategy is intensified to encourage community leaders and good spirited individuals to donate in cash and kind to school projects.

8. Proper storage of classroom Resources: Under extreme conditions of rain or hot weather, public school equipment are unnecessarily exposed to sun or rain. During hot weather, equipment like public address system, laboratory equipment and chemicals are exposed to the sun as a result of blown roof and wreckages caused on school building. Impacts of human contrived disasters have tremendously caused damages to public school facilities and equipment. It behooves on public secondary school administrators to ensure that teachers and students take care of those equipment provided by the State Ministry of Education through proper storage systems.

Other administrative services according to Adiele, Chukwuma & Daminabo (2010) were stated below:

1. Proper wiring and Installation of gadgets: This strategy ensure that proper wiring of school buildings and administrative offices are

not carelessly done to avoid electrocution, burning of the school building during hot weather and un-expected thunder storm in the public secondary schools.

**2. Beautification of the school environment:** This strategy ensures planting of trees, flowers and cutting down overgrown ones in the school compound.

**3. Provision of proper sanitary system:** A hygienic school environment inspires teachers, students and parents who brought their children to that school. Effective sanitary practice such as waste basket system, efficient and effective toilet facilities entails an ideal school environment.

**4. Principals ensure maintenance, repair and replacement of worn-out or broken school facilities and equipment's** such as sports or game facilities, laboratory equipment in the public secondary schools.

Expatriating further on the concept of principal's management services Akubue (2002). Observed that principals administrative strategies principals rendered in public secondary schools during human contrived disasters, include providing an enabling environment, improving staff behaviour through performance management, managing rewards, application of supportive supervision, counseling teachers and students and providing career planning and advice to students.

### **Statement of the Problem**

Human contrived disasters are considered significant threats to human being. The threats of human contrived disasters are very high more than the threats of terrorism. Man – made or human contrived disasters are popular news discussed on radios and television. The popular

human caused disasters include fire outbreak caused by human carelessness, gas explosions, fuel tanker explosion among others. In public secondary schools, popular man- made disasters include: fire out break caused by bush burning, gas explosions, faulty electrical wirings, infectious diseases, inhalation of poisonous chemicals, cutting of overgrown tree when students have not gone back to their homes. Sporadic shootings among others. Man – made disasters are dreadful and encompassing in public schools, the dreadful effects of human contrived disasters are related to extreme events of climate change (Anyagogu, 2021). Cases of human caused disasters are problems that retards effective management of public secondary schools in Nigeria. When they occur, public secondary schools principals are constrained with lots of queries to answer.

### **Concept of Principal ship**

Public secondary school principals are the administrative heads of public secondary schools. They are public secondary school heads at helm of managing public secondary schools in Nigeria (Odumodu, 2011). Principals are responsible for management of secondary schools as far as secondary education is concerned. Principals are school managers. Their management function depicts the success or failure of secondary schools. Secondary school principal controls the daily activities of a school for the achievement of the goals of secondary school education in Nigeria. The assertion made by Federal Republic of Nigeria (FRN) 2013) identified the educational objectives of secondary school to include, providing secondary school certificate with opportunity for education to higher level, irrespective of social or ethnic back ground, gender and religion. The (FRN) further affirmed that , secondary school education



system offers diversified curriculum to cater for the differences in talents, disposition, opportunity, and roles in political and in the society, training of manpower in the applied sciences, technology and commerce: Public Secondary schools especially technical secondary schools, provide technical and vocational job mastery skills to students. This enable students to be self- reliant. The duties of principals in the school are important because both students and teachers encounter problems that hinder generally functioning of public secondary schools. If human contrived disasters that rear their ugly heads are not mitigated in public secondary schools, it goes a long way to affect the student's educational and social lives.

The school principal ship position has long permeated in public secondary schools. It is one of the most important educational leadership positions thus; Hornby (1981) sees the principal ship as the highest in the order of importance that occupy leadership roles with authority in secondary schools. Secondary school principals in the state are the chief executive officer of the secondary schools appointed by the state ministries of education. Public secondary schools principals establish contact with their state ministries of education for managing secondary schools according to the directives of the state ministries of education. Nosiri (2007) observed that principals are specialists on school management. Nosiri, highlighted that they are public secondary schools heads. The secondary schools chief executives, supervisors, co-coordinators, solution providers and educational appraisers in the public secondary schools. Principals defined teacher's roles and roles of other staff members especially, in public schools.

Principals are the shortened version of the principal teacher (Njoku, 2008), This assertion

entails that principals are "teacher among other teacher. Secondary school principals are the key persons that helps in building staff morale. Principals do everything possible to provide best climate for good morale.

Morale is exhibited among the teachers, especially, when principals helps teachers to become effective teaching staff. The principals are instructional leaders and supervisors of their schools. As a good instructional leaders, they distributes teaching responsibilities to teachers and makes teaching and learning more relevant to the needs and aspirations of the school and the society in general. The principals peruse at what were given to students by teachers as lessons as way of checking teachers effectiveness. Principals outlines specific procedures for teachers and students arrival to school and their departure from the school. Principals delegate duties or responsibilities to teaching staff and monitor the success or failure of those delegated duties and instructions. Principals are the instructional leaders of secondary schools (Ogunu, 2001). There are high expectations from principals as management of public secondary schools.

The success of instructional programs of secondary schools is dependent on secondary school principals. Ogunu further explained that Principals works closely with teachers in the development of instructional goals and objectives in accordance with national policy on education. Principals of public secondary schools, provide teachers with effective resources for teaching and learning. They provide to teachers all relevant information in education. They stimulate, encourage and facilitate activities that improve teaching and learning in secondary schools. They visits classes to observe how teachers are teaching, hold personal and group conferences with

teachers and students to exchange information with them. Principals assist teachers in evaluation and development of the curriculum. Other responsibilities of principals in public secondary schools include ensuring the provision of a sound school library and instructional resource centers in secondary schools, carrying out inspection of teachers lesson notes, ensure safe keep of students class registers, encourage teachers and other staff in in- service training, ensure students progresses through steady monitoring of students in the school, organize orientation programs for new teachers in the school. Principals provide an effective decision system that help in providing resources to teachers and other school staff when they are needed and most importantly counsel the teachers. Principals need to be aware of responsibilities they are mandated to do by the ministry of education and therefore, should work according to the directives of the policies. Principals keeps everything moving in the school in good order; He or she disciplines defaulted students, submit reports of situations of the school to the State Ministry of Education, performs clerical and administrative duties and keeps track of students' admission records and academic performances in the school.

### **Mary Parker Follet theory of (1868- 1933)**

This theory was put forward by Mary Parker Follet in 1933. Mary Parker Follet emphasized that managers creates sub-ordinate- super-ordinate relationship which takes place in an organization. Managers create activities that motivates or inspire subordinates to exhibit their energy and skills for achieving goals in of organizations. A good manager according to Mary Packer Follet is a manager who listens to the plight of the subordinates, provide the needs of subordinate staff financially and materially and take staff suggestions that are mostly

needed for achievement of goals in the organization.

Subordinate staff scrutinizes the leadership style of managers and give their opinion whether managers make use of the attribute of human relation as propounded by Mary packer Follet. This theory is specifically on how things should be worked out in a co-operative spirit, through building and maintaining dynamic and harmonious human relationship with the subordinate staff members. The relevance of this theory to this present study is that, principals should develop human relation strategies for motivating teachers at the expense of their energy at work. Principals forms teachers and students clubs as awareness creation in the school. Principals establish synergy with community leaders. They also, establish strong parent teachers association (PTA). They preside and discuss issues or needs of secondary schools, most especially issues of facilities dilapidation caused by climate change in public schools. This strategy enables principals to provide ideas for reducing the impacts of disasters in their schools. An effective principal ponders on this theory, by acting fast to communicate, save and rebuild all existing facilities and ensure that students and teachers are protected from human contrived menaces of disasters.

### **Methods**

This study investigated human contrived disasters: A case study of public secondary schools principals in Nigeria. Two schools were used to represent other schools in Nigeria. One research question and one hypothesis guided this study. Descriptive research survey design was used for this study. One research question and one hypothesis guided this study. The population of this study is 5000 which

comprised 2,500 male students from government college Owerri and 2,500 female students from development secondary school Owerri. The sample size of this study is 130 obtained by collecting samples of 65 males and 65 female students from the two schools using stratified random sampling technique. Researcher developed questionnaire “titled human contrived disasters: A case study of public secondary schools principals in Nigeria” was used. The instrument was validated by two experts from Madonna University Anambra state. Reliability coefficient of this study was

ascertained using Cronbach alpha and coefficient of reliability indices were 0.87 and 0.97. Mean and standard deviation were used to analyze the data, independent t- test was used to test the hypothesis at 0.05 alpha level.

**Results**

**Research Question One:**

What are principal’s planning strategies in managing human contrived disasters in public secondary schools in Imo state?

Table 1: Shows the mean responses and standard deviation on principal’s planning strategies in managing human contrived disasters in public secondary schools in Imo state.

S/No	Item Statement	Male Students X	SD	Decision	Female Students X	SD	Decision
1	Invitation of experts to present lectures on disaster management	2.10	0.10	Agree	3.00	0.10	Agree
2	Establishment of students and teachers’ clinics	2.50	0.40	Agree	2.60	0.20	Agree
3	Teaching practice has given me the	3.50	0.30	Agree	2.60	0.40	Agree
4	Provision of first aid treatment facilities to teachers and students	2.30	0.20	Agree	3.70	0.24	Agree
5	Principal ensures proper school fencing	2.40	1.10	Agree	3.50	0.34	Agree
6	Principal procures nose and eye-protecting masks during outbreak of diseases and industrial smoke	2.60	0.30	Agree	3.10	0.11	Agree
7	Principal approves students’ clubs for reduction of human contrived disasters	2.50	0.20	Agree	2.50	0.21	Agree
8	Principal ensures that badly wounded students are evacuated to major hospitals before the attention of the students’ caregivers or their parents is notified	3.10	0.10	Agree	2.60	0.22	Agree
9	Principal synergizes with communities that own most public secondary schools and encourages them to provide their resources for the management of public secondary schools	3.20	0.20	Agree	3.20	0.20	Agree
10	Principal ensures that proper sanitary systems are procured, ensuring effective control of diseases	3.00	0.10	Agree	3.00	0.31	Agree
<b>Total</b>		<b>27.2</b>	<b>2.00</b>		<b>27.2</b>	<b>2.33</b>	

**Test of Hypothesis**

**Hypothesis one:** There is no significant difference in the opinion of male and female

public secondary schools’ students on principals planning strategies in managing human contrived disasters in public secondary schools in Nigeria

.Table 2: shows test of hypothesis on male and female student’s responses on principals planning strategies in public secondary schools in Nigeria with use of Government College Owerri and Development secondary school Owerri.

Here is the table formatted according to your data:

<b>Respondents</b>	<b>N</b>	<b>X</b>	<b>S.D</b>	<b>t-cal</b>	<b>t-crit</b>	<b>Decision</b>	<b>Respondents</b>
Male Students	65	27.2	2.00	27.2	2.082	Reject	Male Students
Female Students	65	27.2	2.33	-	-	-	Female Students

The hypothesis table above showed, mean of respondents X, as 27.2 and 27.2 with standard deviation of 2.00 and 2.33. In the same vein, t-cal is 27.2 while t-crit is 2.082. From the table of analysis above. Since t-cal is greater than t-crit as shown in the table, the hypothesis is rejected. This means that there is no significant difference in the opinion of male and female students of Government College Owerri and Development secondary school Owerri on principals planning strategies in managing human contrived disasters in public schools in Nigeria.

**Discussion**

**Interpretation of findings**

Disasters are significant threats to humans and their ecology. There are observed man -made Disasters in public secondary schools. In view of the observed human or man-made disasters in public secondary schools, this study entails that principal use management strategies to overcome human or man-made disasters. One of those strategy is planning strategy. With planning strategy, principals ensure that: experts on disasters management are invited in public secondary schools to advice students and teachers on preventive mechanism to avoid human or man- made disasters. Public secondary school principals, provide disaster protective materials such as first aid treatment

facilities, non-pharmaceutical materials such as nose and mouth masks to prevent infusions of smokes and dangerous chemicals to human respiratory system.

Principals enact safety and hazards policies, approves students clubs that would create awareness about human contrived disasters in public secondary schools. These responsibilities of principals were identified by (Nosiri, 2017) that Providing quality administration in the post primary schools, entails the use of transformative, conceptual, interpersonal or human relation skills that are endearing when harnessed. The transformative skill of the principal is considered necessary to adopt vision in the school and the principal should ensure that those visions are shared and maintained among teachers and students in the school.

Daminabo (2010) explained that through planning, the principals integrate risks and hazards policies into school programs, create alternative environment and sanctions to control misunderstandings that could results to use of harmful objects in public secondary schools. Principal management strategies can be helpful for enhancing and creating adjustment in the school time table to pave way for lost grounds. Through planning, public schools principals ensure disaster mitigations, provide appropriate coordination of students

sports activities to avoid riots of any kind. From the above expository it is adduced that principal's administrative strategies include all the enabling conditions put in place to foster students and teachers healthy living, morale, commitments to their responsibilities and professional development.

Principal's management strategies are therefore taken to reflect on environmental friendliness, teachers and student's welfare, school physical facilities development and maintenance (Amakiri, 2010) observed that quality education to a large extent depends on quality learning environment. Amakiri further observed that students education is predicated on the type of equipment and facilities such as laboratories, workshops, libraries, books and most especially, security, good health of teachers and students through planned policies and programs initiated by the principals in public schools, most especially, during disasters. Amakiri however, observed that, teaching and learning can be made more pleasant if the teachers and students stays pleasantly in conducive environment.

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planning strategies used by principals in managing the impacts of human contrived disasters in public the schools are:

**1. Constant supervision of teachers:** This strategy ensures that teachers and students are in the classroom and not drifting into self-complacency because of human caused disasters. Appropriate disciplinary measures are instituted on those who fail to comply with laid down rules. The school authority accepts nothing less than compliance. This goes a long way in the realization of school objectives.

**2. Establishment of students and teachers clinics:** After first aid treatment, the second treatment giving to an individual or group of individuals that sustained injuries in the school premises are medical treatment or services of medical professionals, especially doctors. Doctors responsible for treatment of patients and those that sustained injuries during human disasters are beckoned. Without the services of medical doctors that synergize with students and teachers many people would have died from their sicknesses, diseases and severe wounds.

**3. Principals ensures that students and teachers severely wounded or suffering from infectious diseases and sicknesses are referred to major hospitals in the cities.** Responsibilities of school management are not only on supervision of instructions. Principals ensure the provision of medical facilities they can afford. They as well, refer severe cases to special doctors if their school clinics cannot manage the health or disaster contrived health problems.

**4. School fencing among others.**

## **Recommendations**

**The following recommendations guided this study**

1. Federal and state government should provide logistics such as drugs, woools mutilated spirits non pharmaceutical facilities such as funds and nose masks to both students and teachers in public secondary schools.

2. Public secondary schools principals should inculcate proper hygienic practices to students. This would reduce impacts of human contrived disasters on public secondary schools students.

### **Conclusion**

Disasters are sudden occurrences that affect people in different strands, such as market places, industries, churches and educational institutions. Human Disasters affects both children, adults and aged persons in the society. Human contrived disasters are caused by human premeditated acts or human carelessness. Human contrived disasters are devastative, in extreme cases, it causes human death tolls. Man-made disasters also known as human contrived disasters have caused millions of naira for the treatment of affected persons and procurement of facilities for treatment of affected students and procurement of human contrived disaster facilities in public secondary schools. Majority of public secondary schools in Nigeria have suffered from one human contrived disasters or the other. Some human contrived disasters in public secondary schools are: Building wreckage, industrial smokes infused in public secondary schools, faulty electrical wiring, deaths caused as a result of reckless driving by motorists and motorcyclist on school roads and school environment, spread of disease pandemics, fuel tanker explosions, vehicle crashes, fire outbreaks gaseous explosions among others. In view of the many devastations caused by human contrived disasters in public secondary schools, it behooves on public secondary schools

principals to establish disaster reduction mechanism in public secondary schools in Nigeria especially in Nigeria. Some of those disaster reduction or management strategies include: Invitation of disaster management experts to advice students and teachers on safety protocols against human disasters in public secondary schools, provision of first aid treatment facilities, enactment of risks and hazards policies, provision of eyes and nose masks to students during infusion of smokes in public secondary schools among others.

### **Future Research**

Future researchers should carry out more study on man –made or human contrived disasters to forestall the occurrence of disasters in public and private educational institutions, public places in Nigeria and in Diasporas communities.

### **Implication**

Human contrived disaster are considered issues that pose serious threats to human beings and their ecology. The three tiers of government, other educational institutions such as private secondary schools, private universities, public tertiary institutions should protect their educational institutions, sensitize their students and carry out more studies on human contrived disasters so that human or man – made disasters will be overcome. Human contrived disasters occur mostly out of human carelessness. Educational managers should not overlook their occurrence in schools. Effort should be geared to unravel loopholes through which they occur in educational institutions so that they won't affect or impair lives of students in educational institutions and the macro society in general.

### **Limitation**

This study focused in public secondary schools. Other educational institutions were not emphasized. Those educational institutions include: Public primary schools, private primary and secondary schools, public universities, private universities. Future researchers should carry out study on human contrived disasters that will broadly capture these educational institutions in Nigeria.

Larger samples on this study should be generalized to give more impactful results on human contrived disasters.

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