USE OF ICT IN CRIME DETECTION AND SCHOOL SECURITY IN NIGERIA UNIVERSITIES

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**TITLE PAGE**

THE USE OF ICT IN CRIME DETECTION AND SCHOOL SECURITY IN NIGERIA UNIVERSITIES

**APPROVAL PAGE**

THIS RESEARCH WORK HAS BEEN APPROVED FOR THE DEPARTMENT OF SCIENCE AND VOCATIONAL EDUCATION, GODFREY OKOYE UNIVERSITY, ENUGU

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**CERTIFICATION**

I, Chime Kingsley Chika, an undergraduate student of the department of Science and Vocational education (Computer Science Education programme) in the faculty of Education, Godfrey Okoye University, Enugu, with registration number U14/EDU/CSE/002 do hereby certify that, to the best of my knowledge, the work embodied in this research project is original and has not been submitted in part or full for any other Diploma or Degree of this great institution of learning (Godfrey Okoye University) or any other university.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Head of department Supervisor

**DEDICATION**

To the Almighty and eternal God whose grace and strength upholds me.

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***Abstract***

*The prevalence of crime in higher institutions in Nigeria has been on the increase in recent years, this has not only become a concern to the government, but to the university authorities and members of the society. The menace consequently, is crippling the entire educational goals as insecurity, which is a product of crime, disrupts the curriculum. It is quite obvious that crimes like stealing, rape, cultism, examination malpractice, murder and many more has come to stay on campus.*

*This study focuses on the use of information and communication technology (ICT) in crime detection and safety in Nigeria Universities. It reveals ways of implementing ICT facilities to curb these heinous crimes that intercept our educational goals.*

*The study made use of cross sectional survey with validated structured questionnaire as method of data collection from two selected universities in Enugu state (Godfrey Okoye University, and the University of Nigeria, Enugu Campus). In the analysis, mean table was used to present result while frequency table and simple percentage were used to analyze each questionnaire item. The findings revealed major challenges and solutions to the use of ICT facilities for crime detection in Nigeria universities. The challenges includes unavailability of sufficient ICT facilities like metal detectors, biometric finger print identity system, electronic detectors, bomb detectors, car trackers, faraday cage, phone signal jammers and so on; lack of student awareness and usage available tools; poor functionality of available facilities; lack of implementation of newer technologies; poor perception of student on the use of some ICT tools for crime detection, etc.. Findings from the research suggests that as a matter of urgency, the government, university authorities and stakeholders in education should collaborate to make necessary ICT tools available in schools to ensure school safety. Proper orientation to freshers could also curb awareness challenge.*

*It is hoped that the findings in this research work would help in curbing the problems of crime in our tertiary institutions. The study would also help to stimulate further research in this area of study.*

**CHAPTER ONE**

**INTRODUCTION**

**Background to the study**

 Today’s college and universities are faced with many challenges in the attempt to provide a campus that is safe and secure. The college campus has traditionally been known as a safe haven for students, but recent tragic events have left the leaders of higher education with the challenge of preparing for tragedies that could happen on their campuses (Carrico, 2016).

 Nigerian university society is faced with many crimes that go undetected but undeniable. Crimes like stealing, robbery, rape, cultism, vandalism, open threat, homicide etc. have come to stay on campuses. These crimes has turned school environment from the peaceful conducive and safe place it used to be, to an insecure, fearful and uncomfortable place.

 Safety of the students both physical and psychological is central to their academic performance. Every person desires to feel and stay safe for maximum performance. Security is a first-order or necessary precondition for the development of human beings and societies (Etannibi, 2016).

 Crime is not a concept of concern only to Nigerian educational institutions. It is universal, with a very long and difficult history to trace. Many universities in all parts of the worlds have their fair share of crime which has become an issue of national concern. Crime impacts on the society in a variety of ways according to the nature and extent of crime committed. It constitutes a problem when its incidence is so rampant in the society as to constitute a threat to the security of persons and property, as well as social order and solidarity (Adebayo, 2013).

 School security has become an increasingly high priority for higher institutions. Since crime introduces insecurity, detecting crime situations through machines and data mining approaches can be used to promote school safety.

Crime is growing uncontrollably in Nigeria universities despite the enormous effort of university administrators to prevent and control them. Crime is an act committed or omitted in violation of a law for which punishment is imposed upon conviction.

 In the past few decades, there has been a revolution in computing and communication, and all indications are that technological progress and use of information technology will continue at a rapid rate.(Konsbruck, 2018). One of the most striking technological developments of recent years has been the emergence of digital technology as a powerful tool in our lives. Information Communication and Technology could play a great role in crime detection and enhancement of school security. ICT tools like Closed Circuit Television(CCTV), emergency call systems, metal detectors, GPS tracker, biometric scanner, bomb detectors are useful technologies for improved security. These tools reduces crime by giving criminals the thought that they would be seen, identified and possibly be caught if the engage in crime. Since most students don’t want to be known for crimes like rape, stealing etc. because of their law penalty and personal reputation, these tools helps to keep the school environment secure. Students perpetrate most on-campus crime and are the highest victims of such crimes. Crimes among university students could be prevented, detected and enhanced using technologies of ICT.

The tragic situation of Nigeria universities having rapid increase of seemingly uncontrollable criminal acts and the pressure it places on school administrators gave ground for the exploration of Information Communication and Technology tools and how they can be used to detect these heinous crimes and at larger level propagate school security.

 **Statement of Problem**

 University community in recent years has witnessed alarming increase at the rate which crime thrives on campuses. Criminal acts like rape, breaking of offices, stealing, snatching of cell phones and cars, cultism have become the order of the day in our tertiary institutions. Crimes of stronger impact like murder, assassination and group rebellion on campus is germinating and will soon become high ranked crimes if neglected. People no longer feel safe with others. Crime has become borderless in nature and this makes fight against criminals more complicated for law enforcement agents. To successfully tackle crime, African leaders need to gain knowledge from the steps taken by most developed countries in using ICT to combat crime (Akinola and Ogunobi, 2015). Advancement in technology has also benefitted criminals by providing sophisticated tools and making networked-crime possible on campuses and society. People can now invade bank accounts illegitimately, buy guns and other weapons for their selfish uses, and even hack databases. The earlier days of universities has no record of this category of crime. It used to be a true “citadel of learning, garnished with peace and tranquility, where zealous men are changed to sound men and champions”. Unfortunately, crime has striped the university environment of its savour. Crime is outrageously handicapping the curriculum. The learner being an indispensible factor in the evaluation of the effectiveness of the curriculum is also the major victim of crime and violence on campus. If students fail to learn, the curriculum has invariably failed. Governor Deval Patrick asserted that;

*“No child will be able to succeed academically if they don’t feel safe in school. No teacher would be able to teach at their best if they aren’t confident there’s a plan in place to ensure their school is well prepared for an emergency”*

Governor Deval Patrick—Jan 16, 2014

 Institutions spend a lot of money on security and are yet, ready to spend more. Everyone is desperate about finding solution to these crimes that are eroding the reputation of higher education and tarnishing the image of our campuses. It is agreed that the university though may embody people of different languages, tribe, culture, race, value, believes, principles, background and experiences, which contributes to crime like religious killing, rebellion and more. However, higher institutions are purposed to support socio-cultural co-existence. Provision of safety being a top responsibility of university administrators, curbing crime to ensure security requires a concerted effort of everyone to be attainable. The alarming rate of rise in crime and the quest for safety in tertiary institutions especially campuses led the study of the use of ICT as a weapon for detecting these crimes that has besieged the campuses and making school safe without compromising educational goals.

**Purpose of the study**

 Generally, this study aims at finding out how to use ICT in crime detection and school security using Godfrey Okoye University, and University of Nigeria, Enugu Campus as case study.

 Specifically, the study has the following objectives;

1. to identify what ICT tool s are available in campuses using Godfrey Okoye University, and the University of Nigeria, Enugu Campus as case study.
2. to determine the level of student awareness and usage of available ICT tools for school safety in Godfrey Okoye University, and the University of Nigeria, Enugu Campus
3. to examine the adequacy and effectiveness of current ICT facililties employed in both schools(Godfrey Okoye University, and the University of Nigeria, Enugu Campus) for crime detection.
4. to recommend new ways of using modern ICT tools to detect/curb on-campus crimes and enhance school security in Godfrey Okoye University, and the University of Nigeria, Enugu Campus

**Significance of the Study**

The study has both theoretical and practical significance.

 Theoretically, it will add to existing research works and literatures to be used for educational purposes. Hence, it will serve as a databank for any student (or researcher) carrying out a study related to the subject matter. Also, the research findings could lead to further research.

 Practically, the study will be useful to authorities of tertiary institutions in Nigeria and the Nigeria government. By identifying new technologies and ways of using ICT to detect crimes and enhance security, tertiary institutions can have a solid stand against crime and criminals. The safety of the school will allow learning to effectively take place, thereby producing self reliant and employable graduates who are sound in both character and learning. As crime reduces, overall educational goals are achieved in the learners. These people will return to the society as leaders and employers of labour. To the society in general which is the potential victims of uncontrolled crimes, the information obtained from the study will create a consciousness of concerted effort towards a safer society.

 The study will benefit teachers and students who are potential victims of crimes in tertiary institutions. The information obtained from the study will guide students and teachers on steps to take when they perceive crime or are confronted by such.

The study will be useful to security agencies in policing by exposing new technologies that can be used to detect criminal. By employing the use of ICT for crime detection and security, more criminals will easily be detected and caught while crime scenes are observed firsthand with the help of CCTV.

 The study will also be beneficial to other institutions or business organizations who desire environmental safety of the work place or are challenged with invisible crimes that are evident. Information obtained from the study will help them see how ICT can help in monitoring the workplace and detecting intruders.

**Scope of the Study**

 This study focused on the use of ICT in crime detection and school security in Nigeria Universities using Godfrey Okoye University and University of Nigeria, Enugu Campus as case study. However, the researcher is very much constrained by time and resources to confine the study to Godfrey Okoye University and the University of Nigeria, Enugu Campus only. Both universities were selected because they are typical of Nigeria Universities and are more easily accessible to the researcher. Recommendations are made on how to use ICT tools to detect crimes and improve the security of school environment for learning to be effective.

**Research Questions**

The following research questions were formulated to guide the study;

1. What are the ICT tools that are available for crime detection in Godfrey Okoye University, and the University of Nigeria, Enugu Campus?
2. What is the level of student awareness and usage of available ICT tools for school safety in Godfrey Okoye University, and the University of Nigeria, Enugu Campus?
3. How efficient and effective are present ICT facilities employed in crime detection and school security in Godfrey Okoye University, and the University of Nigeria, Enugu Campus?
4. What ways can modern ICT facilities be used to detect/curb on-campus crimes and enhance school security in Godfrey Okoye University, and the University of Nigeria, Enugu Campus?

**CHAPTER TWO**

**Review of Related Literature**

This chapter dealt with the review of related literature for the study. It is divided into Four subheadings;

Conceptual Framework

* The concept of crime
* The concept of ICT

Theories of Criminal Behavior

* Differential Association Theory
* General Strain Theory
* Rational choice Theory

Theoretical framework

Empirical study on the use of ICT to curb crime

**CONCEPTUAL FRAMEWORK**

**The Concept of Crime**

Crime, the intentional commission of an act usually deemed socially harmful or dangerous and specifically defined, prohibited and punishable under criminal law (Thomas, 2018). A crime includes both the act and the intent to commit the act.

Merriam Webster Dictionary(2018) defined crime as an illegal act for which someone can be punished by the government; especially: a gross violation of law.

Dauda(2014) noted that a crime is a reprehensive human conduct which is sanctioned and punished by law. A crime may be defined as an act or omission, sinful or non-sinful, which a society or a study has of thought fit to punish or otherwise deal with under its law for the time being in force.

The Law Dictionary defines a crime as an act committed or omitted, in violation of a public law, either forbidding or commanding it; a breach or violation of some public right or duty due to a whole community. Elizabeth A. Martin noted that crime or offence (or criminal offence) is an act harmful not only to some individual or individuals but also to a community, Society or the state("a public wrong"). It refers to actions that are forbidden by the law; an offence against the state, conducts such as committing murder, stealing property, resisting arrest, driving while under the influence of alcohol and selling illegal drugs.

Igbo(2013) posits that any act or conduct that violates the cherished norms and values of the community or group and which was visited with severe sanction, can be referred to as a crime. In order words, crime is an act that violates moral rule. A crime or an act may be minor or serious depending on the circumstances.

The legal dictionary(2018) defines crime as a violation of law in which there is injury to the public or a member of the public and a term in jail or prison, and/or a fine as possible penalties*. i.e* an offence against a public law.

Wayne(2009) argued that there is no one generalized definition of crime. That crime could be defined from different frameworks; it could be seen as a social construction where crime refers to some actions or omission that causes harm in a situation that the person or group responsible "ought" to be held accountable and punished, irrespective of what the law book of the state says. From a religious framework, crime is seen as an action against the law of God, whether as revealed in the Holy books such as the Bible, Quran, or Torah. Crime could be defined as a reflection of nation-state legality by which it refers to an act or omission that is defined by the validly passed laws of the nation state in which it occurred so that punishment should follow from the behaviour. In this, crime and criminals only exists when a public body has judged them such according to accepted procedures. It implies that without the state and criminal law, there's no crime and without criminal justice system, there are no criminals.

Finally, the definition of crime varies with time and space. An act that was defined as a crime in the past may be decriminalised in the future and vice versa. Similarly, an act that is defined as a crime in one country may not be so defined in another country (Etannibi and Innocent, 2005).

**The concept of ICT**

ICT stands for Information and Communication Technology.

Information and communication Technology (ICT) refers to all the technology used to handle telecommunication, broadcast media, intelligent building management Systems, audiovisual processing and transmission Systems, and network-based control and monitoring functions (Technopedia, 2018). ICT is a diverse set of technological tools and resources used to communicate, and to create, disseminate, store and manage information. These Technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony (wikibooks, 2018). The technological tools includes hardware and software devices used for communication.

Shafack as cited by Akinola and Ogunobi(2015) described ICT as any technology that is used in gathering, storage, and retrieval of information that can be in textual, or numeric, pictorial and vocal forms using combination of all the multi-media including computers telecommunication.

Megha (nd) argues that although ICT is technology that support activities involving information such as gathering, processing, storing and presenting data; a useful concept of ICT depends on the Local culture and the particular ICT available and how it is configured and managed. That the understanding, management and configuration of the available technology might vary the concept of ICT from

* A collection of tools and devices used for particular tasks e.g publishing, course delivery, transaction processing...etc
* An organised set of equipment (like a workshop) for working on Information and Communication
* Components of integrated arrangement of devices, tools, services and practice that enable information to be collected, processed, stored and shared with others.
* Components in a comprehensive system of people, information and devices that enable learning, problem solving and higher order collaborative thinking, that is, ICT as key elements underpinning a sharable workspace. She noted that the term covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form.

From the above definitions, we can say that ICT refers to softwares or hardware devices that enable the collection, procession, storage, retrieval, manipulation, maintenance and transmission of information from one source to another in a digital form.

**THEORETICAL FRAMEWORK**

**Differential association theory**

 D**ifferential association** is a theory developed by  Edwin Sutherland(1978) proposing that through interaction with others, individuals learn the values, attitudes, techniques, and motives for criminal behavior. Differential association predicts that an individual will choose the criminal path when the balance of definitions for law-breaking exceeds those for law-abiding. This tendency will be reinforced if social association provides active people in the person's life. Earlier in life the individual comes under the influence of those of high status within that group, the more likely the individual to follow in their footsteps. This does not deny that there may be practical motives for crime. If a person is hungry but has no money, there is a temptation to steal. But, the use of "needs" and "values" is equivocal. To a greater or lesser extent, both non-criminal and criminal individuals are motivated by the need for money and social gain.

The principles of Sutherland's Theory of Differential Association key-points:

1. Criminal behavior is learned.
2. Criminal behavior is learned in interaction with other persons in a process of communication.
3. The principal part of the learning of criminal behavior occurs within intimate personal groups.
4. When criminal behavior is learned, the learning includes
	1. techniques of committing the crime, which are sometimes very complicated, sometimes simple;
	2. the specific direction of motives, drives, rationalizations, and attitudes.
5. The specific direction of motives and drives is learned from definitions of the legal codes as favorable or unfavorable.
6. A person becomes delinquent because of an excess of definitions favorable to violation of law over definitions unfavorable to violation of the law.
7. Differential associations may vary in frequency, duration, priority, and intensity.
8. The process of learning criminal behavior by association with criminal and anti-criminal patterns involves all of the mechanisms that are involved in any other learning.
9. While criminal behavior is an expression of general needs and values, it is not explained by those needs and values, since non-criminal behavior is an expression of the same needs and values.

One criticism leveled against this theory has to do with the idea that people can be independent, rational actors and individually motivated. This notion of one being a criminal based on his or her environment is problematic. His theory does not take into account personality traits that might affect a person's susceptibility to environmental influences

Another criticism of the differential association theory is that it is not easy to test the interaction and communication processes, because empirical validations are very hard to be obtained (Sutherland 1978; Zakaria, 2012).

**General Strain Theory**

Robert Agnew formulated this theory in 1992. He argues that crime and delinquency are an adaptation to stress, wherever the stress originally comes from. Agnew suggested three major types of strain, namely:

1. Strain as the failure to achieve positively valued goals. In this type, Agnew identifies three subtypes.
* The first subtype is the traditional concept of strain as the disjunction between aspirations and expectation. This strain is typically measured in terms of monetary goal, where an individual in a lower class usually desire in monetary success, but he or she is prevented from achieving this via legitimate ways. However, Agnew’s theory has been criticized because
	+ unable to explain the extensive nature of middle-class delinquency
	+ neglect goal other than monetary success/ middle-class status
	+ neglect barriers to goal achievement other than social class and
	+ do not fully specify why only some stained individuals turn to delinquency”
	+ the most strong criticism is the limitation of empirical support. However, Agnew argues that this type may produce less strain because aspirations are lofty and idealistic.
* The second subtype is a disjunction between expectation and actual achievements. Strain occurs when an individual’s achievement or reward is not as they expected.
* Finally, the third subtype is strain resulting from a disjunction between what an individual’s view as a fair outcome and actual outcome. If an individual experiences imbalance between income and outcome, it would result in personal distress.
1. Strain as the removal of positively valued stimuli from the individual. This source of strain mainly refers to personal experiences with stressful life events, such as the loss of a girlfriend or boyfriend or other great worth i.e. people being fired from a job or moving to a new neighborhood or school.
2. Strain as the presentation of negative stimuli. This type refers to another sort of stressful life events that refers to a personal confrontation with negative action by others, such as experiencing abuse, accident or neglect. Insufficient power to deal with the negative stimulus by an individual, will create greater strain on the individual. This is sometimes the case in our tertiary institutions where people join cult groups in an attempt to deal with negative stimuli and exert revenge on others. Agnew believes that these different of strain can trigger negative affective (emotions) states, such as anger, disappointment, depression and fear. And anger is the most critical emotional reaction. Anger affects an individual in some ways which are conducive to criminal behaviour, such as creating a desire for revenge and energizing an individual for action. Therefore, general strain theory basically explains that an increase in strain would lead to greater negative emotions, which might then lead to an increase of crime (Agnew 1992; Zakaria, 2012).

**Rational Choice Theory (RCT)**

Rational choice theory also known as RCT finds its modern home in an article written by the Nobel-Prize-winning economist Gary Becker (1968). The position of RCT is that criminal behavior is no different from noncriminal behavior in that it is conduct that persons intentionally choose to undertake (i.e., they are not compelled or forced to do crime), and the reason that they choose to commit crime is that they think it will be more rewarding and less costly for them than noncriminal behavior. As implied by its title, rational choice theory presumes that criminal behavior, like legal behavior, is not determined by biological, psychological, or environmental factors acting on the person, compelling him or her to commit crimes. RCT argues that people voluntarily, willfully choose to commit criminal acts such as burglary, car theft, and assault just like they willfully choose to do other things, such as work in a grocery store, go to college, or use recreational drugs. In this theory, then, criminal acts are the product of choice, which means that people make decisions about whether to commit crimes. People with agency act as if they have free choice or free will over which courses of action they can take—they act as agents on their own behalf. The other side of agency might be thought of as determinism—people behave in a particular way not because they want to or choose to do so but because some cause has acted on them to compel them to behave in a certain manner. An example of a more deterministic theory might be some forms of biological theories of crime, such as the theory that violent behavior is caused by an extra male, or Y chromosome. In the XYY theory of violent offending, males unfortunate enough to be given an extra Y chromosome at birth are at greater risk of violent behavior than males with a more common XY complement.

RCT believes that crime is due to people making choices to commit crimes. If this is the case, why do some people commit crime only some of the time? In other words, on what basis is the choice made to commit crime (and, by implication, non-crime)? The answer is that, in deciding whether to commit crime, people are guided by their consideration of the costs and benefits of criminal behavior and the costs and benefits of alternative, noncriminal behavior. Simply, criminal activity comes with both costs and benefits, and the theory presumes that when people are thinking about committing a crime, they consider the related costs and benefits. However, there are costs and benefits of not committing crime, and theory presumes that, before making a decision, people consider the costs and benefits of non-crime as well. For example, if I have a need for cloth that I need to satisfy, there are two ways I can behave to satisfy that need. One way to get the cloth that I think I need is to go and rob a fellow that has one. This involves a deliberate decision to steal what belongs to another, and before I decide to do that, I consider the costs and benefits of stealing cloth. A second way that I can get the cloth that I think I need is to get a job in a factory, or driving a taxi, or working at a construction site or doing any legal work. This second line of behavior will get me what I need—money to buy cloth—but also involves various costs and benefits. According to RCT, before deciding which of the two behaviors to undertake, I consider the costs and benefits of both the criminal and noncriminal activity.

**Theoretical framework**

Of all the theories discussed above, the researcher adopted the Rational Choice Theory (RCT) as the most suitable for the study. The theory was adopted for this study because it provides the explicit view of the issue of criminal behaviors in Nigeria tertiary institutions by explaining criminal behavior in terms of rational choices. The theory has analyzed crime and criminal behavior not from the point of view of heredity or strain, but by using some of the prevailing social situations. The Rational Choice Theory posits that a criminal behavior is a deliberate, intentional and carefully willed action. The process of this intentional decisions involves consideration of the cost and consequence of taking the criminal action. If the cost of being caught, punished or perceived a criminal outweighs the profit derived from the crime, the criminal deters his intentions. Crimes like theft, vandalism, rape, cultism, murder, examination malpractice, burglary found in our tertiary institutions today are however, not impulsive crimes. They are intentional acts that are willingly undertaken. Although needs exist, the choice of means of achieving those needs are intentional and influenced by cost of such actions. The cases with our campuses today are not so different.

**EMPIRICAL STUDIES ON THE USE OF ICT TO CURB CRIME**

The existence of cultism and cults in our universities poses a continuous threat to life and peaceful co-existence (Osezua, 2016). Cultism has remained a plague to tertiary institutions despite tremendous efforts to eradicate it. Udoh and Ikezu (2015) noted that Cultism is caused by laxity among parents in failing to start on time to teach them moral and values of the society. The study revealed that Cultism affects the institution tremendously both in the standard of education and in the area of discipline. The researcher opined that cultism could be minimised by engaging ICT tools like radio (television, Internet etc.) in creating awareness and educating youths about the dangers of cultism.

Okido(2013) observes that the use of mobile phones has made the existence of cultism unnoticeable on campus. But today, with the use of mobile phones, activities of cult groups can be easily reported to school security and top university administrators. (Adeoti, 2013) as cited by Oladunjoye and Felix(2016) lamented that he joined a cult group without knowing the philosophy of the group and he was later informed of the activities of the group after initiation. Before the introduction of modern information and communication Technology in Nigeria, membership form are collected or given to would-be members in a bizarre manner that it is held in utmost secrecy, but today, registration could be done online. To a reasonable extent, mass movement of cult members can be avoided as members can now move individually and converge at designated places without much attention to the non-members.

Even popular slangs used by members are now within the understanding of non-members through the Internet. The "sailings" and "Akutai" music can be downloaded on any mobile device through the Internet.

Folarin(2013) reveals that cult members often use signs and symbols as effective means of communication. A member of Black Axe or Neo Black movement of Africa may simply inscribe "**as"** at a convenient corner of his room, door post or office shelve. A non-member may not make out any meaning from such inscription except initiated member but with the Internet, the language, slangs, signs and symbols of most members are explained at least to the extent they wish a "Jew"(non-member) to know. ICT has helped to reveal the activities and some secrets of cultists; Ex-member through ICT could give information that could aid victory in an attempt to have a cult-free campus.

Oladunjoye and Felix(2016) suggests that installing Closed Circuit Television strategically in schools and connecting them to mobile devices could help to detect criminals and scare cultists away. For school security to be improved, proper means of reporting crimes must be in place.

Heidi(2015), Suggest that sexual assault in university campuses could be tackled through responsive reporting process that are clear and accessible for all students and staff. This implies ICT facilities like mobile phones, Web portal, electronic mail, or emergency systems. Jenny, Dawn, and Gayle(2016), reveals that improving safety and monitoring in schools is one effective strategy to prevent sexual violence in campus. Thus, the use of monitoring devices such as surveillance cameras, CCTV in strategic sites will promote safety.

Task Force on Policies and Procedures Pertaining to Sexual Harassment and Violence(2017) noted that sexual violence has negative effects on the victims ranging from psychological disorder, physical injury, unwanted pregnancies, infections, social marginalization, lack of academic concentration, isolation etc.. The study also suggests that the process of reporting sexual violence must be easy and provide rapid access to services—the means of reporting must be flexible, allowing a number of methods to be used, such as email, telephone, through websites, mobile application etc.

Miami-Dade School introduced a Pilot program to test whether metal detectors would prevent students from bringing weapons to campus, and over time, it was deemed successful enough to expand to all schools(Rachana and Tomeka, 2018) while Gastic(2011) argued that metal detectors bestow an organizational stigma to schools which is perceived by students heightened level of fear at school. His study reveals that students from schools where metal detectors are used feel less safer than those from other schools.

 Findings from study by (Hankin, Hertz, and Simon. 2011) noted that the impact of metal detector use in schools could not be comparatively concluded. The study found out that about 7.8% of students in school with metal detectors still reported carrying a weapon in school and students in these schools were at equal risk of threats and fights as students in schools without metal detector.

(Woodhouse, 2010) reveals that CCTV helps to inculcate self discipline by reminding potential victims of the risk of crime, therefore altering their behavior accordingly through fear of surveillance. Offenders or perpetrators of crime imposes self discipline on themselves whether real or imagined. He also note that CCTV camera captures images of offences taking place and in some cases may lead to punishment of the offender. Kula (2015) observes that the more people think that CCTV cameras invade their privacy, and lower their perceived safety in the day, however, the situation is not true at night.

 Detection devices could be provided and purchased for as low as 100 pounds, which has the capacity to detect the presence and use of mobile phones, PDA’s and other network adapted devices and micro-chips within a limited range. This could be held by the invigilator while he/she walks around the hall (Currant, 2011).

Ini (nd) posits that although ICT has provided new means of malpractice, the use of ICT technologies like Electronic detectors, phone signal jammer, Faraday cage, airport style security scanner, electronic monitoring service; could be very effective in detecting/curbing examination malpractice in the hall.

Shikalgar et. al.(2017) proposed a method used to track the theft of vehicle and trap the thief using GPS and GSM technology. This system puts into sleeping mode vehicles handled by the owner or authorized person, otherwise goes to active mode. The mode of operation can be changed in person or remotely. If any interruption occurred in any side of the door, microcontroller is interrupted and SMS is sent to the microcontroller. The controller issues the message about the place of the vehicle to the car owner or authorized person. When SMS is sent to the controller, it issues the control signal to the engine motor. Engine motor speed gradually decreases and comes to the off place. After that, all the doors are locked. To open the car or restart the engine, authorized person needs to enter the password. This method makes tracking of vehicle easy, and because the doors are locked, the thief cannot escape from the car.

ICT facilities like car tracker could help to detect the location of cars when they are snatched.

**CHAPTER THREE**

**RESEARCH METHOD**

This chapter presents the methods and procedures that were applied in this study. It describes the research design, area and scope of the study, population of study, sample size, sampling technique, and method of data collection. The validation of instrument, reliability of instrument, method of data analysis, is alsp described in this chapter.

**Research design**

The study made use of cross-sectional survey research design. Researchers collect detail description of existing phenomena with the intention of using the collected data to justify current conditions and practice or to make better plans for improving phenomena. Surveys are generally done to collect three kinds of information .

 First, data concerning existing condition. Secondly, comparison of the existing status of a situation and required standard. Finally, data for improving existing condition.

The cross-sectional survey design enables the researcher to collect his data at a particular point or period from the selected sample. This method was selected because it enabled the researcher to use a sample drawn to represent the various element of the population under study.

**Area of study**

Godfrey Okoye University also known as GO university was founded in 2009 by the very Reverend Father Dr. Christian Anieke as the first university owned by a catholic diocese in Africa. It is located at Thinkers corner, Emene, Enugu state with its permanent site at Ugwu-omu Nike, Emene, Enugu state, Nigeria. (Wikipedia, 2018)

 The university of Nigeria commonly referred to as UNN was founded by Nnamdi Azikiwe in 1955 and formally opened on 7th October 1960 with 220 students and 13 staff members. The university of Nigeria was the first full fledged indigenous and first autonomous university in Nigeria with three campus located at Nsukka, Enugu and Ituku-ozalla (all in Enugu state). (Wikipedia, 2018)

 Both universities are located at the heart of Enugu, the administrative capital of Enugu State, Nigeria.

**Scope of the study**

Primarily, the study examines the use of Information and Communication Technology (ICT) in crime detection and school security in Nigeria universities wit particular reference to Godfrey Okoye University (GOU) and the University of Nigeria, Enugu Campus (UNEC). However, the researcher is very much constrained by time and resources to confine the study to Godfrey Okoye University and the University of Nigeria, Enugu Campus only. Both universities were selected because they are typical of Nigeria Universities and are more easily accessible to the researcher. The result of the findings can be used to some extent to extrapolate for other universities in Nigeria.

**Population of study**

The population consisted of all the students of Godfrey Okoye University and the University of Nigeria, Enugu Campus.

Table(1) below shows the population of the study.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **School** | **Faculties** | **Student Population** | **Academic Year**  |
| **1.** | **Godfrey Okoye University(GOU)** | **5** | **2,222** | **2017/2018** |
| **2.** | **University of Nigeria, Enugu Campus (UNEC)** | **7** | **7,762** | **2016/2017** |
|  | **Total** | **12** | **9,984** |  |

**Table 1: Population of Study**

Source1: Registra’s Office, Godfrey Okoye University Source2: Department of statistics, University of Nigeria, Enugu Campus

**Sample size**

The sample size comprises male and female students of Godfrey Okoye University and the university of Nigeria, Enugu campus. From the total population of 9,984 students, a total of 200 students were selected to serve as the respondents. One hundred (100) students were selected from Godfrey Okoye University and also, One hundred (100) students were selected from the University of Nigeria, Enugu campus. The sample size is considered large enough to permit the statistical computation that is involved in the analysis. Also, the size can be effectively taken care of by the researcher given the resources available to him.

**Sampling Technique**

The cluster sampling technique has been used to select the sample for this study. First, the researcher zones the area. Secondly, the units from the zones has to be selected randomly from each zone. Thirdly, the individual elements has to be sampled and selected.

 Godfrey Okoye university consists of five (5) faculties. These includes faculty of natural and applied sciences, Faculty of Management and Social Sciences, Faculty of Education, Faculty of Arts, and Faculty of Law.

The university of Nigeria, Enugu campus consists of seven (7) faculties. These includes Faculty of Business Administration, Faculty of Environmental studies, Faculty of Health science, Faculty of Law, Faculty of medical sciences, Faculty of Dentistry and Faculty of Basic Medical services.

 The cumulative of twelve (12) faculties of both Godfrey Okoye University and the university of Nigeria, Enugu campus served as clusters on which the sampling was based. From these clusters, the simple random sampling was applied to select three (3) faculties from UNEC and two (2) faculties from GOU for the distribution of the sample.

 From the five(5) faculties, another simple random sampling was applied to select two (2) department each, making a total of ten(10) departments that was chosen for this study. The sample size was made up of only students from second year to final year. This was to ensure that only those who have fair knowledge and experience of the school by virtue of the number of years spent are part of the sample.

 Twenty(20) students were sampled from each of the selected departments to serve as respondents. This bring the respondents to a total of two hundred (200).

**Method of data collection**

The questionnaire was the primary instrument for data collection in this study. A well structured and researcher developed questionnaire titled “*the use of ICT in crime detection and school security in Nigeria universities: a case study of Godfrey Okoye university and the University of Nigeria, Enugu Campus”* which consisted 30 questionnaire items based on the four research questions and the purpose of the study was designed for data collection. The questionnaire method was adopted because the researcher deems it of utmost assistance in obtaining the needed data from the respondents. It also gave the respondents the freewill to express their views, opinion and equally assures their anonymity.

 The instrument was divided into two sections. Section (A) contains information about the respondent, Section (B) contains information on the substantive part of the study. The questionnaire was self administered to ensure maximum return.

**Validation of the instrument**

In this research, the questionnaire was designed and given to two (2) experts in the field of computer science education for validation. The corrected copy was taken to the supervisor for approval.

**Reliability of the instrument**

The test-retest method was used in ensuring the reliability of the instrument. The instrument was trial-tested in one of the sample universities with twenty (20) students, and their responses collected. After about two weeks of the administration, the same test items was re-administered to the same group of respondents. However, the result was consistent with a correlation of 0.75. This, the researcher regarded as high enough to be used for the study.

**Method of data analysis**

The analysis of data from the questionnaire was quantitative in nature. Descriptive statistical method of analysis was employed in this analysis.

 The research questions were answered and summarized using the mean table, while each questionnaire item was analyzed using simple percentage, which sought the frequency, percent, cumulative percent, and cumulative frequency of each item. The mean is express as:

$$\overbar{x}=\sum\_{}^{}FX/F$$

$$\overbar{x}=mean score value$$

∑= summation

X= score (Nominal values assigned to the response mode)

F= frequency of the response of items in the column

However, nominal values will be assigned to differentiate scaling items as follows:

For research question 1, 2, and 4, the scaling are:

Strongly Agree (SA) = 4

Agree (A) = 3

Disagree (D) = 2

Strongly Disagree (SD) = 1

For research question 3, the scaling are:

Very great extent (VGE) = 4

Great extent (GE) = 3

Low extent (LE) = 2

No extent (NE) = 1

Hence,

Mean (X) = 4+3+2+1/4 =10/4 = 2.50

**Decision Rule**

Responses on each research question were considered high and accepted when the mean was 2.50 and above, and low and rejected when the mean was less than 2.50

**CHAPTER FOUR**

**DATA PRESENTATION AND ANALYSIS**

This chapter shows the presentation and analysis of the data collected for the study. The instrument for data collection was the questionnaire. The questionnaire was prepared for the students of Godfrey Okoye University and the University of Nigeria, Enugu Campus which are the areas of the study. The questionnaire was divided into two parts namely; the demographic characteristics, and the substantive issue of the research.

The data were analyzed using mean score computation and frequency table (including frequency, percent, cumulative frequency and cumulative percent). The result was presented and finally, the implication of the result of the research question was discussed to prove or refute the research question and also to achieve some objective of the study. Data collected are presented in table showing various results

**Analysis of data**

First of all, 200 copies of the questions were distributed randomly among the selected students of Godfrey Okoye University and the University of Nigeria, Enugu Campus. After the distribution, 192 copies of the questionnaires were retrieved. Eleven (11) of the retrieved questionnaire were partially answered and were not included in the analysis. The total number of questionnaires for this analysis is therefore 181. Descriptive statistics was used to summarize the demographic information and the research question in this study.

**Section A: Demographic characteristics**

This part covers the demographic characteristics of the 181 students who served as respondents in the study.

**Sex of Respondents**

|  |  |  |
| --- | --- | --- |
| **Sex** | **Frequency** | **Percentage(%)** |
| Male | 95 | 52.49 |
| Female | 86 | 47.51 |
| Total | 181 | 100 |

**Table 2: Distribution of the Respondents by Sex**

Table 2 above shows that of a total of 181 students, 95(52.49%) are male, while 86(47.51%) are female. This shows that majority of the respondents are male.

**Section (B): Substantive issue of the research**

**SUMMARY OF RESEARCH FINDINGS USING MEAN TABLE**

**Table 3: Research Question 1** : What are the ICT tools that are available for crime detection in Godfrey Okoye University, and the University of Nigeria, Enugu Campus?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Item: What ICT facilities are available in your school for crime detection and school security?** | **SA****(4 x f)** | **A****(3 x f)** | **D****(2x f)** | **SD****(1 x f)** | **Total****(N)** | **Mean****∑**$\frac{fx}{f}$ | **Decision** |
| **1** | Mobile phones | 62  | 68 |  19 | 29  | 178 | 2.92 | Accepted |
| **2** | Video camera(CCTV) | 74 | 61 | 26 | 19 | 180 | 3.06 | Accepted |
| **3** | Walkie talkie | 15 | 46 | 71 | 47 | 179 | 2.16 | Rejected |
| **4** | Biometric Finger print identity system | 11 | 51 | 61 | 56 | 179 | 2.09 | Rejected |
| **5** | Interactive web portal | 39 | 27 | 52 | 58 | 176 | 2.27 | Rejected |
| **6** | Faraday cage | 8 | 23 | 68 | 81 | 180 | 1.77 | Rejected |
| **7** | Electronic detectors | 15 | 33 | 70 | 61 | 179 | 2.01 | Rejected |
| **8** | Phone signal jammer | 9 | 25 | 61 | 83 | 178 | 1.78 | Rejected |
| **9** | Metal detector | 9 | 60 | 46 | 59 | 174 | 2.11 | Rejected |
| **10** | Car tracker | 11 | 38 | 48 | 79 | 176 | 1.89 | Rejected |

**Table 4: Research Question 2:** What is the level of student awareness and usage of available ICT tools for school safety in Godfrey Okoye University, and the University of Nigeria, Enugu Campus?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** |  **Item: What is the level of student awareness and usage of available ICT facilities in your School?** | **SA****(4 x f)** | **A****(3 x f)** | **D****(2x f)** | **SD****(1 x f)** | **Total****(N)** | **Mean****∑**$\frac{fx}{f}$ | **Decision** |
| **1** | Are students aware of the available ICT facilities for crime detection? | 48 | 68 | 35 | 28 | 179 | 2.76 | Accepted |
| **2** | Are students exposed to the use available ICT tool for crime detection? | 28 | 39 | 70 | 41 | 178 | 2.30 | Rejected |
| **3** | Do students regularly use available ICT tools? | 54 | 51 | 48 | 26 | 179 | 2.74 | Accepted |
| **4** | Are ICT facilities employed in hostels for crime detection? | 22 | 31 | 65 | 59 | 177 | 2.09 | Rejected |
| **5** | Are ICT facilities employed in lecture rooms for crime detection? | 18 | 42 | 49 | 70 | 179 | 2.04 | Rejected |

**Table 5: Research Question 3:** How efficient and effective are present ICT facilities employed in crime detection and school security in Godfrey Okoye University, and the University of Nigeria, Enugu Campus?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** |  **Item: To what extent are present ICT facilities employed in your school for crime detection effective and adequate?** | **VGE****(4 x f)** | **GE****(3 X f)** | **LE****(2 x f)** | **VLE****(1 x f)** | **Total****(N)** | **Mean****∑**$\frac{fx}{f}$ | **Decision** |
| **1** | To what extent are present ICT facilities employed in hostels and classrooms for crime detection functional? | 22 | 30 | 57 | 70 | 179 | 2.02 | Rejected |
| **2** | To what extent are present ICT facilities employed in the school sufficient in detecting crimes of theft? | 16 | 47 | 59 | 55 | 177 | 2.14 | Rejected |
| **3** | To what extent are present ICT facilities employed in exam halls effective in detecting exam malpractices?  | 39 | 43 | 52 | 45 | 179 | 2.41  | Rejected |
| **4** | To what extent do present ICT facilities employed in your campus reduce the crime of cultism and use of weapons? | 23 | 47 | 51 | 58 | 179 | 2.20 | Rejected |
| **5** | To what extent do ICT tools available in your school reduce the rate of sexual violence in the school? | 22 | 45 | 51 | 62 | 180 | 2.15 | Rejected |
| **6** | To what extent do ICT tools available in your campus reduce the rate of car and phone snatching ? | 24 | 40 | 43 | 71 | 178 | 2.10 | Rejected |
| **7** | To what extent do the presence of ICT facilities make you feel safe in school | 25 | 36 | 55 | 65 | 181 | 2.12 | Rejected |

**Table 6: Research Question 4:**  What ways can modern ICT facilities be used to detect/curb on-campus crimes and enhance school security in Godfrey Okoye University, and the University of Nigeria, Enugu Campus?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** |  **Item What ways can ICT facilities be better used to detect/curb crimes and enhance school security?** | **SA****(4 x f)** | **A****(3 x f)** | **D****(2 x f)** | **SD****(1 x f)** | **Total** **(N)** | **Mean****∑**$\frac{fx}{f}$ | **Decision** |
| **1** | The use of metal detectors should be employed in the school to check the use of weapons | 115 | 43 | 9 | 11 | 178 | 3.47 | Accepted |
| **2** | Mobile phones should be encouraged in schools for quick reporting of crimes | 111 | 59 | 7 | 2 | 179 | 3.56 | Accepted |
| **3** | Network jammers should be used in exam halls to avoid malpractice | 87 | 54 | 18 | 20 | 179 | 3.16 | Accepted |
| **4** | Functional CCTV should be installed in strategic scenes to detect criminals | 113 | 48 | 12 | 8 | 181 | 3.47 | Accepted |
| **5** | Should an interactive web portal or e-mail address be made available for students to report crimes? | 96 | 57 | 19 | 7 | 179 | 3.35 | Accepted |
| **6** | Students should be registered to use finger prints to sign-in and out of exam halls | 86 | 63 | 14 | 15 | 178 | 3.24 | Accepted |
| **7** | Government should partner with schools to provide necessary ICT facilities | 125 | 38 | 6 | 11 | 180 | 3.54 | Accepted |

**Table 7**: Are mobile phones available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 62 | 34.8 | 62 | 34.8 |
| Agree | 68 | 38.2 | 130 | 73.0 |
| Disagree | 19 | 10.7 | 149 | 83.7 |
| Strongly disagree | 29 | 16.3 | 178 | 100.0 |
| **Total** | **178** | **100.0** |  |  |

***Source: Field survey 2018***

The table of statistical values above shows that 62(34.8%) of the respondents strongly agree, 68(38.2%) agree, 19(10.7%) disagree, and 29(16.3%) strongly disagree. From the result, majority of the respondents 130(73%) agree and strongly agree while minority 48(27%) disagree and strongly disagree. Hence, we conclude that mobile phones are available in schools for crime detection and school security.

**Table 8:** Are video cameras (CCTV) available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 74 | 41.1 | 74 | 41.1 |
| Agree | 61 | 33.9 | 135 | 75 |
| Disagree | 26 | 14.4 | 161 | 89.4 |
| Strongly disagree | 19 | 10.6 | 180 | 100.0 |
| **Total** | **180** | **100.0** |  |  |

***Source: Field survey 2018***

The table above reveals that 74(41.1%) of the respondents strongly agree, 61(33.9%) agree, 26(14.4%) disagree, and 19(10.6%) strongly disagree. From the result, majority of the respondents 135(75%) agree and strongly agree while minority 45(25%) disagree and strongly disagree. Hence, we conclude that video camera (CCTV) are available in schools for crime detection and school security.

**Table 9:** Are walkie talkie available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 15 | 8.4 | 15 | 8.4 |
| Agree | 46 | 25.7 | 61 | 34.1 |
| Disagree | 71 | 39.6 | 132 | 73.7 |
| Strongly disagree | 47 | 26.3 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

The table of statistical values above shows that 15(8.4%) of the respondents strongly agree, 46(25.7%) agree, 71(39.6%) disagree, and 47(26.3%) strongly disagree. From the result, minority of the respondents 61(34.1%) agree and strongly agree while majority 118(65.9%) disagree and strongly disagree. Hence, we conclude that walkie talkie are not available in schools for crime detection and school security.

**Table 10:** Are biometric finger print identity system available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 11 | 6.1 | 11 | 6.1 |
| Agree | 51 | 28.5 | 62 | 34.6 |
| Disagree | 61 | 34.1 | 123 | 68.7 |
| Strongly disagree | 56 | 31.3 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

The table of values above shows that 11(6.1 %) of the respondents strongly agree, 51(28.5%) agree, 61(34.1%) disagree, and 56(31.3%) strongly disagree. From the result, minority of the respondents 62(34.6%) agree and strongly agree while majority 117(65.4%) disagree and strongly disagree. Hence, we conclude that Biometric finger print identity system are not available in schools for crime detection and school security.

**Table 11:** Are Interactive web portal(s) available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 39 | 22.2 | 39 | 22.2 |
| Agree | 27 | 15.3 | 66 | 37.5 |
| Disagree | 52 | 29.5 | 118 | 67.0 |
| Strongly disagree | 58 | 33.0 | 176 | 100.0 |
| **Total** | **176** | **100.0** |  |  |

***Source: Field survey 2018***

From the table above, it is seen that 39(22.2%) of the respondents strongly agree, 27(15.3%) agree, 52(29.5%) disagree, and 58(33.0%) strongly disagree. From the result, minority of the respondents 66(37.5%) agree and strongly agree while majority 110(62.5%) disagree and strongly disagree. Hence, we conclude that interactive web portal(s) are not available in schools for crime detection and school security.

**Table 12:** Are Faraday cage available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 8 | 4.4 | 8 | 4.4 |
| Agree | 23 | 12.8 | 31 | 17.2 |
| Disagree | 68 | 37.8 | 99 | 55.0 |
| Strongly disagree | 81 | 45 | 180 | 100 |
| **Total** | **180** | **100.0** |  |  |

***Source: Field survey 2018***

Table 12 above shows that 8(4.4%) of the respondents strongly agree, 23(12.8%) agree, 68(37.8%) disagree, and 81(45%) strongly disagree. From the result, minority of the respondents 31(17.2%) agree and strongly agree while majority 149(82.8%) disagree and strongly disagree. Therefore, we conclude that Faraday cage are not available in schools for crime detection and school security.

**Table 13:** Are electronic detectors available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 15 | 8.4 | 15 | 8.4 |
| Agree | 33 | 18.4 | 48 | 26.8 |
| Disagree | 70 | 39.1 | 118 | 65.9 |
| Strongly disagree | 61 | 34.1 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

The statistical table above shows that 15(8.4%) of the respondents strongly agree, 33(18.4%) agree, 70(39.1%) disagree, and 61(34.1%) strongly disagree. From the result, minority of the respondents 48(26.8%) agree and strongly agree while majority 131(83.2%) disagree and strongly disagree. We therefore conclude that electronic detectors are not available in schools for crime detection and school security.

**Table 14:** Are phone signal jammers available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 9 | 5.1 | 9 | 5.1 |
| Agree | 25 | 14.0 | 34 | 19.1 |
| Disagree | 61 | 34.3 | 95 | 53.4 |
| Strongly disagree | 83 | 46.6 | 178 | 100.0 |
| **Total** | **178** | **100.0** |  |  |

***Source: Field survey 2018***

Table 14 above shows that 9(5.1%) of the respondents strongly agree, 25(14.0%) agree, 61(34.3%) disagree, and 83(46.6%) strongly disagree. From the result, minority of the respondents 34(19.1%) agree and strongly agree while majority 144(80.9%) disagree and strongly disagree. Hence, we conclude that phone signal jammers are not available in schools for crime detection and school security.

**Table 15:** Are metal detectors available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 9 | 5.2 | 9 | 5.2 |
| Agree | 60 | 34.5 | 69 | 39.7 |
| Disagree | 46 | 26.4 | 115 | 66.1 |
| Strongly disagree | 59 | 33.9 | 174 | 100.0 |
| **Total** | **174** | **100.0** |  |  |

***Source: Field survey 2018***

The above table shows that 9(5.2%) of the respondents strongly agree, 60(34.5%) agree, 46(26.4%) disagree, and 59(33.9 %) strongly disagree. From the result, minority of the respondents 69(39.7%) agree and strongly agree while majority 105(60.3%) disagree and strongly disagree. We therefore conclude that metal detectors are not available in schools for crime detection and school security.

**Table 16:** Are car trackers available in your school for crime detection and school security?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 11 | 6.3 | 11 | 6.3 |
| Agree | 38 | 21.6 | 49 | 27.9 |
| Disagree | 48 | 27.3 | 97 | 55.2 |
| Strongly disagree | 79 | 44.8 | 176 | 100.0 |
| **Total** | **176** | **100.0** |  |  |

***Source: Field survey 2018***

Table 16 above reveals that 11(6.3%) of the respondents strongly agree, 38(21.6%) agree, 48(27.3%) disagree, and 79(44.8%) strongly disagree. From the result, minority of the respondents 49(27.9%) agree and strongly agree while majority 125(72.1%) disagree and strongly disagree. Hence, we conclude that car tracker(s) are not available in schools for crime detection and school security.

**Table 17:** Are students aware of the available ICT facilities for crime detection?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 48 | 26.8 | 48 | 26.8 |
| Agree | 68 | 38.0 | 116 | 64.8 |
| Disagree | 35 | 19.6 | 151 | 84.4 |
| Strongly disagree | 28 | 15.6 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

Table 17 shows that 48(26.8%) of the respondents strongly agree, 68(38.0%) agree, 35(19.6%) disagree, and 28(15.6%) strongly disagree. From the result, majority of the respondents 116(64.8%) agree and strongly agree while minority 63(35.2%) disagree and strongly disagree. Hence, we conclude that students are aware of available ICT facilities for crime detection.

**Table 18:** Are students exposed to the use of available ICT tools for crime detection?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 28 | 15.7 | 28 | 15.7 |
| Agree | 39 | 22.0 | 67 | 37.7 |
| Disagree | 70 | 39.3 | 137 | 77.0 |
| Strongly disagree | 41 | 23.0 | 178 | 100.0 |
| **Total** | **178** | **100.0** |  |  |

***Source: Field survey 2018***

From table 18, 28(15.7%) of the respondents strongly agree, 39(22.0%) agree, 70(39.3%) disagree, and 41(23.0%) strongly disagree. From the result, minority of the respondents 67(37.7%) agree and strongly agree while majority 111(62.3%) disagree and strongly disagree. Hence, we conclude that students are not exposed to the use of available ICT tools for crime detection

**Table 19:** Do students regularly make use of available ICT tools?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 54 | 30.2 | 54 | 30.2 |
| Agree | 51 | 28.5 | 105 | 58.7 |
| Disagree | 48 | 26.8 | 153 | 85.5 |
| Strongly disagree | 26 | 14.5 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

From Table 19 above, it is shown that 54(30.2%) of the respondents strongly agree, 51(28.5%) agree, 48(26.8%) disagree, and 26(26.8%) strongly disagree. From the result, majority of the respondents 105(58.7%) agree and strongly agree while minority 74(41.3%) disagree and strongly disagree. Hence, we conclude that students regularly make use of available ICT tools.

**Table 20:** Are ICT facilities employed in the hostels for crime detection?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 22 | 12.5 | 22 | 12.5 |
| Agree | 31 | 17.5 | 53 | 30.0 |
| Disagree | 65 | 36.7 | 118 | 66.7 |
| Strongly disagree | 59 | 33.3 | 177 | 100.0 |
| **Total** | **177** | **100.0** |  |  |

***Source: Field survey 2018***

Table 20 above shows that 22(12.5%) of the respondents strongly agree, 31(17.5%) agree, 65(36.7%) disagree, and 59(33.3%) strongly disagree. From the result, minority of the respondents 53(30.0%) agree and strongly agree while majority 124(70.0%) disagree and strongly disagree. Hence, we conclude that ICT facilities are not employed in hostels for crime detection.

**Table 21:** Are ICT facilities employed in the lecture halls for crime detection?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 18 | 10.1 | 18 | 10.1 |
| Agree | 42 | 23.5 | 60 | 33.6 |
| Disagree | 49 | 27.4 | 109 | 61.0 |
| Strongly disagree | 70 | 39.0 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

The table of statistical values above shows that 18(10.1%) of the respondents strongly agree, 42(23.5%) agree, 49(27.4%) disagree, and 70(39.0%) strongly disagree. From the result, minority of the respondents 60(33.6%) agree and strongly agree while majority 119(66.4.0%) disagree and strongly disagree. Hence, we conclude that ICT facilities are not employed in lecture rooms for crime detection.

**Table 22:** To what extent are present ICT facilities employed in hostels and lecture halls for crime detection functional?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Very Great Extent | 22 | 12.3 | 22 | 12.3 |
| Great Extent | 30 | 16.8 | 52 | 29.1 |
| Little Extent | 57 | 31.8 | 109 | 60.9 |
| Very Little Extent | 70 | 39.1 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

Table 22 above shows that 22(12.3%) of the respondents affirmed very great extent, 30(16.8%) affirmed great extent, 57(31.8%) affirmed little extent, while 70(39.1%) affirmed very little extent. From the result, minority of the respondents 52(29.1%) affirmed very great extent and great extent while majority 127(70.1%) affirmed little extent and very little extent. Hence, we firmly conclude, to a very little extent the present ICT facilities employed in hostels and lecture rooms for crime detection are functional.

**Table 23:** To what extent are present ICT facilities employed in yours school sufficient for detecting the crime of theft?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Very Great Extent | 16 | 9.0 | 16 | 9.0 |
| Great Extent | 47 | 26.6 | 63 | 35.6 |
| Little Extent | 59 | 33.3 | 122 | 68.9 |
| Very Little Extent | 55 | 31.1 | 177 | 100.0 |
| **Total** | **177** | **100.0** |  |  |

***Source: Field survey 2018***

From Table 23, 16(9.0%) of the respondents affirmed very great extent, 47(26.6%) affirmed great extent, 59(33.3%) affirmed little extent, while 55(31.1%) affirmed very little extent. From the result, minority of the respondents 63(35.6%) affirmed very great extent and great extent while majority 114(64.4%) affirmed little extent and very little extent. Hence, we firmly conclude, to a little extent the present ICT facilities employed in schools are sufficient for detecting the crime of theft.

**Table 24:** To what extent are present ICT facilities employed in exam halls effective in detecting exam malpractices?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Very Great Extent | 39 | 21.8 | 39 | 21.8 |
| Great Extent | 43 | 24.0 | 82 | 45.8 |
| Little Extent | 52 | 29.1 | 134 | 74.9 |
| Very Little Extent | 45 | 25.1 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

Table 24 above reveals that, 39(21.8%) of the respondents affirmed very great extent, 43(24.0%) affirmed great extent, 52(29.1%) affirmed little extent, while 45(25.1%) affirmed very little extent. From the result, minority of the respondents 82(45.8%) affirmed very great extent and great extent while majority 97(54.2%) affirmed little extent and very little extent. Hence, we firmly conclude, to a little extent the present ICT facilities employed in exam halls are effective in detecting exam malpractices.

**Table 25:** To what extent do the present ICT facilities employed in yours school reduce the crime of cultism and use of weapons?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Very Great Extent | 23 | 12.8 | 23 | 12.8 |
| Great Extent | 47 | 26.3 | 70 | 39.1 |
| Little Extent | 51 | 28.5 | 121 | 67.6 |
| Very Little Extent | 58 | 33.4 | 179 | 100 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

Table 25 shows that 23(12.8%) of the respondents affirmed very great extent, 47(26.3%) affirmed great extent, 51(28.5%) affirmed little extent, while 58(32.4%) affirmed very little extent. From the result, minority of the respondents 70(39.1%) affirmed very great extent and great extent while majority 109(60.9%) affirmed little extent and very little extent. Hence, we firmly conclude, to a very little extent the present ICT facilities employed in schools reduce the crime of cultism and use of weapons.

**Table 26:** To what extent do the present ICT facilities employed in yours school reduce the rate of sexual violence in the school?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Very Great Extent | 22 | 12.2 | 22 | 12.2 |
| Great Extent | 45 | 25.0 | 67 | 37.2 |
| Little Extent | 51 | 28.3 | 118 | 65.5 |
| Very Little Extent | 62 | 34.5 | 180 | 100.0 |
| **Total** | **180** | **100.0** |  |  |

***Source: Field survey 2018***

From the table above, 22(12.2%) of the respondents affirmed very great extent, 45(25.0%) affirmed great extent, 51(28.3%) affirmed little extent, while 62(34.5%) affirmed very little extent. From the result, minority of the respondents 67(37.2%) affirmed very great extent and great extent while majority 113(62.8%) affirmed little extent and very little extent. Hence, we firmly conclude, to a very little extent the present ICT facilities employed in schools are sufficient for detecting the crime of theft.

**Table 27:** To what extent do the present ICT facilities employed in yours school reduce the rate of car/phone snatching ?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Very Great Extent | 24 | 13.5 | 24 | 13.5 |
| Great Extent | 40 | 22.5 | 64 | 36.0 |
| Little Extent | 43 | 24.2 | 107 | 60.2 |
| Very Little Extent | 71 | 39.8 | 178 | 100.0 |
| **Total** | **178** | **100.0** |  |  |

***Source: Field survey 2018***

From the table above, 23(13.5%) of the respondents affirmed very great extent, 40(22.5%) affirmed great extent, 43(24.2%) affirmed little extent, while 71(39.8%) affirmed very little extent. From the above result, minority of the respondents 64(36.0%) affirmed very great extent and great extent while majority 114(64.0%) affirmed little extent and very little extent. Hence, we firmly conclude, to a very little extent the present ICT facilities employed in schools reduce car/phone snatching.

**Table 28:** To what extent do the presence of ICT facilities make you feel safe in school?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Very Great Extent | 25 | 13.8 | 25 | 13.8 |
| Great Extent | 36 | 19.9 | 61 | 33.7 |
| Little Extent | 55 | 30.4 | 116 | 64.1 |
| Very Little Extent | 65 | 35.9 | 181 | 100.0 |
| **Total** | **181** | **100.0** |  |  |

***Source: Field survey 2018***

From the table above, 25(13.8%) of the respondents affirmed very great extent, 36(19.9%) affirmed great extent, 55(30.4%) affirmed little extent, while 65(35.9%) affirmed very little extent. From the result, minority of the respondents 61(33.7%) affirmed very great extent and great extent while majority 120(66.3%) affirmed little extent and very little extent. Hence, we firmly conclude, to a very little extent the presence of ICT facilities makes students feel safe in schools.

**Table 29: T**he use of metal detectors should be employed in the school to check the use of weapons

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 115 | 64.6 | 115 | 64.6 |
| Agree | 43 | 24.2 | 158 | 88.8 |
| Disagree | 9 | 5.1 | 167 | 93.9 |
| Strongly disagree | 11 | 6.1 | 178 | 100.0 |
| **Total** | **178** | **100.0** |  |  |

***Source: Field survey 2018***

The table of values above shows that 115(64.6%) of the respondents strongly agree, 43(24.2%) agree, 9(5.1%) disagree, and 11(6.1%) strongly disagree. From the result, majority of the respondents 158(88.8%) agree and strongly agree while minority 20(11.2%) disagree and strongly disagree. Hence, we conclude that the use of metal detectors should be employed in the school to check the use of weapons.

**Table 30:** Mobile phones should be encouraged in schools for quick reporting of crimes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 111 | 62.0 | 111 | 62.0 |
| Agree | 59 | 33.0 | 170 | 95.0 |
| Disagree | 7 | 3.9 | 177 | 98.9 |
| Strongly disagree | 2 | 1.1 | 179 | 100.0 |
| **Total** | **178** | **100.0** |  |  |

***Source: Field survey 2018***

Table 30 above shows that 111(62.0%) of the respondents strongly agree, 59(33.0%) agree, 7(3.9%) disagree, while only 2(1.1%) strongly disagree. The result reveals that majority of the respondents 170(95.0%) agree and strongly agree while minority 9(5%) disagree and strongly disagree. We therefore conclude strongly that mobile phones should be encouraged in schools for quick reporting of crimes

**Table 31: N**etwork jammers should be used in exam halls to avoid malpractice

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 87 | 48.6 | 87 | 48.6 |
| Agree | 54 | 30.2 | 141 | 78.8 |
| Disagree | 18 | 10.0 | 159 | 88.8 |
| Strongly disagree | 20 | 11.2 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

The table of values above shows that 115(64.6%) of the respondents strongly agree, 43(24.2%) agree, 9(5.1%) disagree, and 11(6.1%) strongly disagree. From the result, majority of the respondents 158(88.8%) agree and strongly agree while minority 20(11.2%) disagree and strongly disagree. Hence, we conclude that the use of metal detectors should be employed in the school to check the use of weapons.

**Table 32: F**unctional CCTV should be installed in strategic scenes to detect crime

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 113 | 62.4 | 113 | 62.4 |
| Agree | 48 | 26.6 | 161 | 89.0 |
| Disagree | 12 | 6.6 | 173 | 95.6 |
| Strongly disagree | 8 | 4.4 | 181 | 100.0 |
| **Total** | **181** | **100.0** |  |  |

***Source: Field survey 2018***

The table of values above shows that 113(62.4%) of the respondents strongly agree, 48(26.6%) agree, 12(6.6%) disagree, and 8(4.4%) strongly disagree. From the result, majority of the respondents 161(89.0%) agree and strongly agree while minority 20(11.0%) disagree and strongly disagree. Hence, we conclude that functional CCTV should be installed in strategic scenes to detect crimes.

**Table 33:** Should interactive web portals or email address be made available for students to reports crimes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 96 | 53.6 | 96 | 53.6 |
| Agree | 57 | 31.8 | 153 | 85.4 |
| Disagree | 19 | 10.6 | 172 | 96.0 |
| Strongly disagree | 7 | 4.0 | 179 | 100.0 |
| **Total** | **179** | **100.0** |  |  |

***Source: Field survey 2018***

Table 33 above shows that 96(53.6%) of the respondents strongly agree, 57(31.8%) agree, 19(10.6%) disagree, and 7(4.0%) strongly disagree. From the result, majority of the respondents 153(85.4%) agree and strongly agree while minority 26(14.6%) disagree and strongly disagree. Hence, we conclude that interactive web portal(s) and email address should be made available in schools for students to report crime.

**Table 34:** Students should be registered to use finger prints to sign-in and sign-out of exam halls

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 86 | 48.3 | 86 | 48.3 |
| Agree | 63 | 35.4 | 149 | 83.7 |
| Disagree | 14 | 7.9 | 163 | 91.6 |
| Strongly disagree | 15 | 8.4 | 178 | 100.0 |
| **Total** | **178** | **100.0** |  |  |

***Source: Field survey 2018***

The table of values above shows that 149(83.7%) of the respondents strongly agree, 63(35.4%) agree, 14(7.9%) disagree, and 15(8.4%) strongly disagree. The result reveals that, majority of the respondents 149(83.7%) agree and strongly agree while minority 29(16.3%) disagree and strongly disagree. Hence, we conclude that students should be registered to use finger prints to sign-in and sign out of exam halls.

**Table 35:** Government should collaborate with schools to provide necessary ICT facilities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scale** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative percent** |
| Strongly Agree | 125 | 69.5 | 125 | 69.5 |
| Agree | 38 | 21.1 | 163 | 90.6 |
| Disagree | 6 | 3.3 | 169 | 93.9 |
| Strongly disagree | 11 | 6.1 | 180 | 100.0 |
| **Total** | **180** | **100.0** |  |  |

***Source: Field survey 2018***

The above table shows that 125(69.5%) of the respondents strongly agree, 38(21.1%) agree, 6(3.3%) disagree, and 11(6.1%) strongly disagree. From the result, majority of the respondents 163(90.6%) agree and strongly agree while minority 17(9.4%) disagree and strongly disagree. Hence, we firmly conclude that the Government should collaborate with schools to provide necessary ICT facilities.

**CHAPTER FIVE**

**SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

**Summary and Conclusion**

In this chapter, the researcher intends to sum up the findings of this study, draw conclusions from the result of the findings, give necessary recommendations and suggest areas for further research following the findings of the study. In evaluating the findings of this study, the focus was on the four research questions formulated for the purpose of the study. The study sought answer to the research questions to ascertain whether they are acceptable or not.

 The research revealed that there is lack of adequate ICT tools in schools for detecting crimes and enhancing school safety. The findings of the research shows that only video cameras (CCTV) and mobile phones are accepted to be available in schools while facilities like metal detectors, phone signal jammers, interactive web portals for reporting crimes, electronic detectors, biometric finger print identity system, faraday cage, and walkie talkie are not available. The study further revealed that although students are aware of available facilities, they are not exposed to use them in detecting crimes and enhancing the school security. These lapses could be as a result of poor orientation of students about the importance and usage of available ICT in crime detection.

 The findings revealed that the ICT facilities employed in student hostels and classrooms are not functional neither are they effective in curbing crimes like theft, exam malpractice, rape and use of weapons. The study reveals that present ICT facilities are not adequate in crime detection, crime reporting and enhancement of school security.

 The research further reveals that the students’ perception of the available ICT tools does not make them feel safe. From the study, CCTV and mobile phones were the accepted available ICT tools. The findings agree with that of Kula (2015) who observes that the more people think that CCTV invades their privacy, the lesser their perceived safety in the day. He further noted that the case is not the same at night. In other words, the presence of CCTV cameras increases the feeling of safety at night but during the day, it reduces the feeling of safety because it threatens privacy.

 The study also revealed that the use of metal detectors should be employed in schools to check the use of weapons. This is opposed by the findings of Hankin, Hertz, and Simon(2011), that about 7.8% of students in schools with metal detectors were still reported to posses weapons in school and students in the school are at equal risk with students in other schools where metal detectors are not used. Their study further noted that students’ intent to threaten or injure others may not be deterred or prevented by the presence of metal detectors. Our findings reveals that employing metal detector is believed to reduce the use of weapons in schools.

 Also, the study reveals that most students are of the opinion that students should be registered to use biometric finger print identity systems to sign-in and sign-out of examination halls to reduce the high rate of examination malpractice.

 Finally, the research reveals that there is a poor provision of platforms for reporting crimes in schools. Students involved in the cases of sexual violence many times lack the courage to approach appropriate authorities and hence, they stay depresses and psychologically unstable. The study shows that providing an interactive, quick and responsive systems like web portals and email addresses that grants victims or reporters a degree of anonymity would enhance safety.

**RECOMMENDATION**

Having conducted this research and analyzed the collected data, the researcher has the following recommendations.

 Government at all levels, all stakeholders in educational sectors, as well as the university authorities should collaborate to provide adequate modern ICT facilities to be used in schools for quick detection of crime and enhancement of school security.

 The university authority should create awareness especially to the new entrants(fresh students) during their orientation on the available ICT facilities and how to use them in detecting crimes and keeping the university community safe.

 The university authority should take more advantage of the advancement in technology by digitalizing the process of students signing-in and signing-out of examination halls through the use of biometric finger print identity system. In other words, every student should be registered in the biometric database to ensure legitimacy of candidates in writing examinations. Also, school authorities should consider providing invigilators with handheld signal detectors that enable invigilators to quickly detect phones and other signal enabled electronic devices when used by students in exam hall.

 Government and national university commission should give consideration to encouraging the use of mobile phones (android and Smartphone) in all universities in Nigeria for security and communication purposes.

 Finally, from time to time, both students and staff should come together to evaluate the impact of present ICT facilities in controlling crime and also make necessary adjustment. This is because the society is continuously changing and by implication, new technologies emerge day by day, new crimes and methods of committing old ones are on display. Hence, it becomes necessary to improve existing technologies, employ newer ones, and expose students to the effective use of employed ICT facilities.

**AREAS FOR FURTHER RESEARCH**

The following areas are suggested for further research;

* Students’ perception of safety and the use of ICT facilities for crime detection.
* The use of ICT in the prevention, reporting and management crime in Nigeria Universities.
* The influence of ICT in controlling campus crime

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APPENDIX

Godfrey Okoye University

Ugwuomu-Nike

P.M.B. 01014

Thinkers Corner

Enugu state

Dear Respondent,

 I am a final year student of the above named institution currently carrying out a research on the use of ICT in crime detection and school security in Nigeria universities with particular reference to Godfrey Okoye university and the University of Nigeria, Enugu Campus.

 I will be grateful if you can honestly respond to the attached questionnaire as much as possible. Your response will be treated with utmost confidentiality and will not be used for any other reason except for the purpose of this study.

Thanks,

Yours faithfully,

**Chime, Kingsley**

**QUESTIONNAIRE**

**The use of ICT in crime detection and school security in Nigeria universities: (A case study of Godfrey Okoye University and the University of Nigeria, Enugu Campus)**

Instruction: please tick [√ ] in the box that depicts your answer to each question below.

**Section A**

1. Sex (a) Male [ ] (b) Female [ ]

**Section B**

Instruction: For each of the statements that follows, choose the response option that shows your level of agreement or disagreement by ticking on the appropriate column.

Response options values

SA – Strongly Agree \_\_\_ (4)

A – Agree \_\_\_ (3)

D – Disagree \_\_\_ (2)

SD – Strongly Disagree \_\_\_ (1)

Response options values

VGE - Very Great Extent \_\_\_ (4)

GE - Great Extent \_\_\_ (3)

LE - Low Extent \_\_\_ (2)

VLE - Very Low Extent \_\_\_ (1)

**Research Question 1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Item: What ICT facilities are available in your school for crime detection and school security?** | **SA****4** | **A****3** | **D****2** | **SD****1** |
| **1** | Mobile phones |  |  |  |  |
| **2** | Video camera(CCTV) |  |  |  |  |
| **3** | Walkie talkie |  |  |  |  |
| **4** | Biometric Finger print identity system |  |  |  |  |
| **5** | Interactive web portal |  |  |  |  |
| **6** | Faraday cage |  |  |  |  |
| **7** | Electronic detectors |  |  |  |  |
| **8** | Phone signal jammer |  |  |  |  |
| **9** | Metal detector |  |  |  |  |
| **10** | Car tracker |  |  |  |  |
| **11** | Others(specify) |  |  |  |  |

**Research Question 2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** |  **Item: What is the level of student awareness and usage of available ICT facilities?** | **SA****4** | **A****3** | **D****2** | **SD****1** |
| **1** | Are students aware of the available ICT facilities for crime detection? |  |  |  |  |
| **2** | Are students exposed to the use of available ICT tool for crime detection? |  |  |  |  |
| **3** | Students regularly use available ICT tools |  |  |  |  |
| **4** | Are ICT facilities employed in hostels for crime detection? |  |  |  |  |
| **5** | Are ICT facilities employed in lecture rooms for crime detection? |  |  |  |  |

**Research Question 3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** |  **Item: To what extent are present ICT facilities employed in your school for crime detection effective and adequate?** | **VGE****4** | **GE****3** | **LE****2** | **VLE****1** |
| **1** | To what extent are present ICT facilities employed in hostels and classrooms for crime detection functional? |  |  |  |  |
| **2** | To what extent are present ICT facilities employed in the school sufficient in detecting crimes of theft? |  |  |  |  |
| **3** | To what extent are present ICT facilities employed in exam halls effective in detecting exam malpractices?  |  |  |  |  |
| **4** | To what extent do present ICT facilities employed in your campus reduce the crime of cultism and use of weapons? |  |  |  |  |
| **5** | To what extent do ICT tools available in your school reduce the rate of sexual violence in the school? |  |  |  |  |
| **6** | To what extent do ICT tools available in your campus reduce the rate of car and phone snatching in the school? |  |  |  |  |
| **7** | To what extent do the presence of ICT facilities make you feel safe in school |  |  |  |  |

**Research Question 4**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** |  **Item What ways can ICT facilities be better used to detect/curb crimes and enhance school security?** | **SA****4** | **A****3** | **D****2** | **SD****1** |
| **1** | The use of metal detectors should be employed in the school to check the use of weapons |  |  |  |  |
| **2** | Mobile phones should be encouraged in schools for quick reporting of crimes |  |  |  |  |
| **3** | Network jammers should be used in exam halls to avoid malpractice |  |  |  |  |
| **4** | Functional CCTV should be installed in strategic scenes to detect criminals |  |  |  |  |
| **5** | Should an interactive web portal or e-mail address be made available for students to report crimes? |  |  |  |  |
| **6** | Students should be registered to use finger prints to sign-in and out of exam halls |  |  |  |  |
| **7** | Government should partner with schools to provide necessary ICT facilities |  |  |  |  |