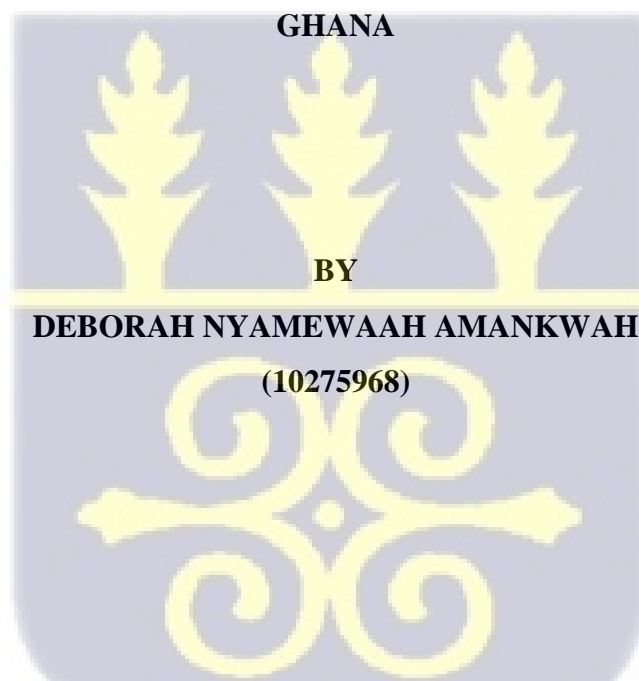


**UNIVERSITY OF GHANA  
COLLEGE OF EDUCATION  
SCHOOL OF INFORMATION AND COMMUNICATION STUDIES  
DEPARTMENT OF INFORMATION STUDIES**

**COLLECTION SECURITY IN SELECTED PRIVATE UNIVERSITY LIBRARIES IN  
GHANA**



**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN  
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**DEDICATION**

With love and gratitude, this study is dedicated to my husband, Mr. Emmanuel Kyei

Amankwah and my parents, Mr. Martin Kojo Arko and Mrs. Felicia Ohui Arko.

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## LIST OF ABBREVIATIONS

3M	Minnesota Mining and Manufacturing
CCTV	Closed-Circuit Television
CIHR	Canadian Institutes of Health Research
CSMM	Collection Security Management Model
GCTU	Ghana Communication Technology University
GTUC	Ghana Technology University College
HRM	Human Resource Management
IBM	International Business Machines
ID	Identification Card
IT	Information Technology
ITS	Information Technology Studies
LIS	Library and Information Science
MA	Master of Arts
MPHIL	Master of Philosophy
OPAC	Online Public Access Catalogue
PHD	Doctor of Philosophy
RFID	Radio Frequency Identification
SANS	SysAdmin, Audit, Network, and Security
SPSS	Statistical Package for Social Science
UG	University of Ghana
UPS	Uninterruptible Power Supply
VVU	Valley View University
WASSCE	West African Senior School Certificate Examination

## ABSTRACT

Collection is an important component of the library as it is the base upon which a library adds value and provides essential services to its users. Collection security is designed in order to protect library collections against unauthorized access. The study sought to identify collection security issues, find out the existing security threats, determine staff and user awareness of security, verify if there was a collection security policy and examine the collection security measures in place. The study was guided by the Collection Security Management Model. The study employed an exploratory case study to help in the better understanding of the topic under investigation. A questionnaire was used to collect quantitative data from a sample size of 297 respondents. In addition, thirteen (13) library staff from Valley View University and Ghana Technology University College, now Ghana Communication Technology University were interviewed. The study found that the two libraries had security problems caused by lack of awareness of rules and regulations, lack of proper orientation to users on the use of the library collection, insufficient library collection for users, ignorance and lack of adequate punishment to serve as a deterrent to others and self-interest. Further, the study found a low level of awareness of security in the two libraries due to lack of training of staff and orientation for users. More also, the research showed that there was a functional collection security policy, but the issue was in relation to adhering to the policy. Finally, the research found that users were aware of human and technological measures put in place by both Valley View and Ghana Communication Technology Universities. It was recommended that the two libraries should provide adequate staff training. In addition, they should engage in orientation and awareness creation programmes for users and staff. The two libraries must adopt effective collection security policies, provision of physical and technological security systems and ensure the collective responsibility of all stakeholders.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Libraries are “institutions set up to cater for the educational, cultural, research, recreational and information needs of their users” (Oyedum, Sanni & Udoakang, 2014, p.128). Freeman (2014) gave a more comprehensive definition of the library as:

An organized collection of sources of information and similar resources made accessible to a defined community for reference or borrowing. It provides physical or digital access to material and maybe a physical building or room, or a virtual space, or both. A library's collection can include books, periodicals, newspapers, manuscripts, films, maps, prints, documents, microform, CDs, cassettes, videotapes, DVDs, Blu-ray Discs, e-books, audio-books, databases, and other formats. Libraries range in size from a few shelves of books to several million items (p.3).

Libraries have “the main objectives of being entrusted with the selection, acquisition, organisation, storage and dissemination of information to their patrons” (Ogbonyomi, 2011, p.2). As such, libraries support educational programmes of learning, teaching and research in educational organizations. That is why libraries are perceived as one of the pillars of development. In achieving this mission, libraries preserve valuable records of culture so that they can last for long periods while ensuring access to documented materials from one generation to another. There are three types of libraries. These are public, school and academic.

An academic library is a type of library attached to a tertiary institution to support research and learning. It is a type of library established to provide resources that satisfy the reading,

teaching, and research interests of an academic community. In the words of Edom (2012) cited by Eziuche (2016), an academic library has three cardinal objectives. These include;

- i. Conservation of existing material,
- ii. Transmission of knowledge through teaching,
- iii. Creation of new knowledge through researches.

All these and more require that an academic library provides an array of information resources in print, non-print, and electronic format (Eziuche, 2016). To ensure effective use, longevity, and accessibility to the resources of academic libraries, there is a need for collection security.

A library collection is the total of library materials (Rath & Rath, 2014). The collection is “an important component of the library as it is the base upon which a library adds value and provides essential services to its users. Since time immemorial, libraries have been defined by their collections” (Yamson and Cobblah, 2016, p.393).

On the other hand, library security is typically best understood as “a system that reflects the strategies of librarians and other library staff to prevent or ameliorate the negative consequences of a realized threat in the libraries” (Olajide, 2017, p.74). Also, library security refers to the arrangements provided for safe and secure facilities for library staff, library resources, equipment, and library users (Gupta & Madhusudhan, 2018). Library security includes collections, protection of staff and users, facilities, equipment, theft, mutilation and physical attack.

Collection security refers to “a process designed to protect library collections against unauthorized removal or loss” (Maidabino & Ngah, 2010, para.3). A similar view was held by Maidabino and Zainab (2011), that collection security implies “the requirement for libraries to supply, maintain and secure its collection to confirm durability, accessibility and the effective provision of services to library users” (p.15). This involves “protecting resources against disasters as well as thieves or intruders” (Ajegbomogun as cited in Oyedum, Sanni & Udoakang, 2014, p.128).

In general, the aim of security is to avert loss from any type of danger. All units, organizations, associations, and budgetary offices are liable for safeguarding their assets, personnel and physical security. The goal of a security system in libraries should be to “provide a safe and secure capability for library employees, library resources and equipment, and library patrons” (Akor, 2013, p.5). Library reading materials constantly need security because of possible damage from atmospheric hazards, natural threats, user and staff behaviour, among others (Kumbhar, 2016). In this sense, Pradhan and Bhoi (2015) indicated that a library must “build a good collection to its patrons and provide, maintain and secure its collections to ensure the availability, accessibility and longevity of its collection, as well as to provide effective services to its community/patrons to whom it is meant for” (p.73). To ensure the effective security of a library’s collection, there must be a proper management system to enforce the implementation of laid down policies.

Library collection security management refers to the “overall manner in which collection security policies, programmes, procedures, or measures are deployed to mitigate risk and ensure access.” (Maidabino & Ngah, 2010, p. 3). In other words, security management implies “the need for libraries to provide, maintain and secure its collection to ensure long



life, accessibility and effective provision of services to users” (Nihuka, 2015, p.5). Libraries observe some security measures such as using security personnel at the entrance of the library, bag restriction policies, electronic security book detectors, and biometric security controls. Despite these measures, library materials are still not safe. There is a need for librarians to provide more effective and efficient security, using both technological and non-technological means to safeguard library materials.

In contemporary societies, securing library collections have become an important and difficult challenge. Academic libraries require security to safeguard their information resources (print, non-print and electronic resources) to “support the educational services of the university community and humanity at large” (Maidabino, 2012, p.240).

Urhiewhu, Emojorho and Omah (2018) indicated that, in developing countries, collection security is important for the library to “provide, maintain and secure its collection to ensure longevity, accessibility and effective provision of services to users” (p.2). Libraries, therefore, need effective strategies to “assess the degree of collection insecurity they are facing and to establish acceptable levels of collection security implementation” (p.2). In the words of Musa (2017), the security of library resources is important in the provision of efficient library service delivery whereas insecurity of library resources result in theft, mutilation, vandalism among others.

Universities in Ghana consist of public, which are established and managed by the state, and private, which are owned by entities. They have missions of creating and transferring knowledge in Ghana and beyond. As a result, the university libraries in Ghana have a vast range of collections to support their missions. These collections include print, electronic and

non-print resources. The collections are very important to support the activities in the academic environments such as teaching, learning and research. This study focuses on collection security of Valley View and Ghana Communication Technology Universities. These are privately-owned universities. The collections of their libraries cut across disciplines offered in the respective institutions. The collections are both print, electronic, and non-print materials. These collections need to be secured to support better service provision for students and faculty. These institutions encounter difficulties in attempts to provide effective security management for their library collections.

## **1.2 Statement of the Problem**

Academic libraries are inevitably faced with threats of security all over the world. Good security and protection of library collections can aid libraries in the provision of effective services in response to patrons' needs.

Globally, the problem of library security has attracted the attention of researchers. Researches by Ali (2017); Kumbhar and Veer (2016); Holley (2009) and Martell (2010) point to the challenges of collection security relating to both print and electronic resources and as such proper security system should be implemented to avoid loss and damage of library collection.

In Africa, researchers such as Abioye and Adeowu (2013); Ugah as cited in Agboola and Aduku (2019) and Usman (2013) indicate that information resources threats include mutilation, hiding of material, pilfering and other bad attitudes towards library material, and these can result in user dissatisfaction.

In Ghana, several pieces of research (Amoah, 2016, Ayoung, Boatbil and Banbil, 2014, and Senyah and Lamptey, 2011) have been conducted in the area of library user security, securing library collection, personal security and safety. From the literature, the researcher realized that many of the scholars have researched security practices related to public libraries. A few however focused on private libraries. Yamson and Cobblah (2016) had their research on private libraries with Central University library as their case study. The researcher has not come across any research on security for libraries of Valley View and Ghana Communication Technology Universities. Again, most of the earlier researches concentrated on print resources only. This study attempts to bridge the gap by focusing on both print and electronic resources.

A preliminary discussion on collection security with the librarians at the selected libraries indicated clearly that securing library collections is very problematic.

### **1.3 Purpose of the Study**

The purpose of the study was to examine the collection security practices of Valley View and Ghana Communication Technology University Libraries.

### **1.4 Objectives of the Study**

The objectives of the study were as follows:

1. To find out the existing security threats in the selected libraries
2. To determine staff and user awareness of security and insecurity.
3. To verify if there is a collection security policy.
4. To examine the collection security measures in place.

5. To make recommendations for effective collection security management.

### **1.5 Scope of the Study**

The study was limited to library staff and level 400 students of Valley View and Ghana Communication Technology Universities. The library staff of both universities were used because they are directly involved in the security aspect of the libraries. Also, level 400 students have been in the system for longer years than students at other levels and for that matter have more experience in security-related practices. Furthermore, the study focused on both print and electronic materials.

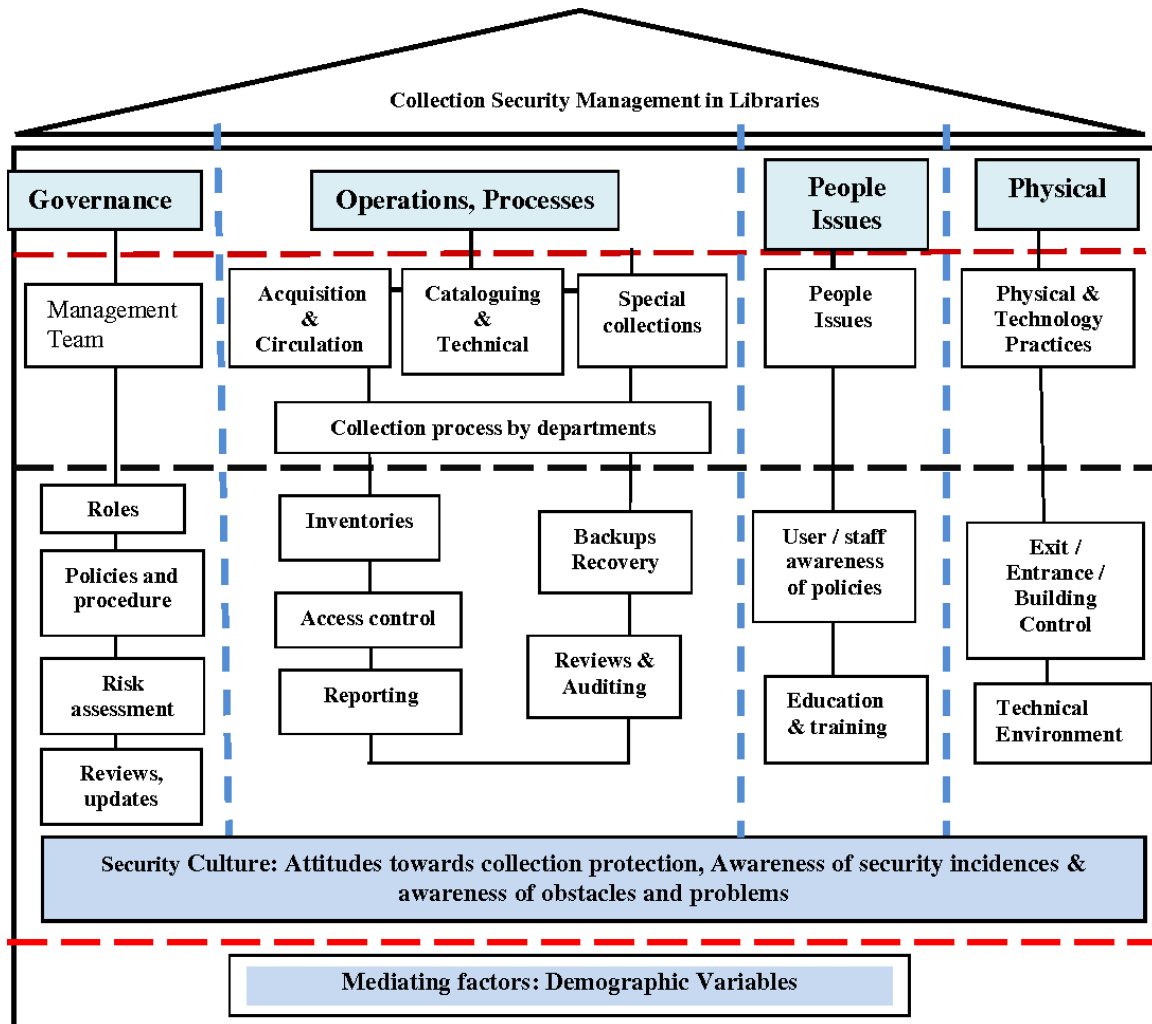
### **1.6 Theoretical Framework**

A theoretical framework guides the research study. It is the structure that holds or safeguards the theoretical focus of a research study. It guides the methodology or how the researcher plans to go about finding answers to the research questions put out. Its purpose is to aid the researcher to identify the variables of the study and also to give the researcher a general structure as to how to analyze the data that would be collected.

This study was guided by the Collection Security Management Model propounded by Da Veiga and Eloff (as cited in Maidabino and Zainab, 2013). The model stimulates to “a secured house where the alarm system installed should provide adequate protection. However, even in this secured situation, security may be breached if the owner leaves the house with the front door unlocked” (Urhiiewhu, Emojorho, & Omah, 2018, p.5). Also, “the model describes a holistic plan for collection protection in academic libraries, combining governance, process, people, physical and cultural factors to ensure that a reasonable level of

collection security management is in place, thereby minimizing risk to the library collection”  
 (Maidabino & Zainab, 2011, p.19).

**Fig.1. Model for Collection Security Management in Libraries**



Source: Da Veiga and Eloff as cited in Maidabino and Zainab (2013).

The researcher adopted the elements in the model for this study. The researcher adopted elements such as policies and procedures, risk assessment, user/staff awareness of policies, education and training, and physical and technological practices. The model was therefore relevant to the study because it accounts for the security threats available (risk assessment), user and staff awareness of security, collection security policy and measures.

### **1.6.1 Governance Factor**

Governance includes the management team, their roles, policies and procedures, risk assessment, reviews, and updates. It refers to “the set of roles, policies and responsibilities and practices provided by members of the security team” that helps in making and achieving objectives and policies and discovering the appropriate risks (Maidabino & Zainab, 2011, p.19). It highlights the importance of collective security as part of management duties. The security management team of the library “should have the necessary experience and knowledge about collection security threats” (Maidabino & Zainab, 2011, p.19) and there is the need for them to do a risk assessment to identify problems in collection security and implement programmes to control it. The governance factor emphasises the importance of the “library and enjoins collection managers to document, maintain, review and update risk policies and procedures to publicize collection security initiatives and create awareness among library staff and users” (Maidabino & Zainab, 2011, p.20).

### **1.6.2 Operational Process Factor**

It involves “operation security programmes formulated by the security management team through relevant departments” (Maidabino & Zainab, 2011, p.20). These include the following:

1. “The acquisition department aims at accessioning and marking items to establish ownership and maintaining an inventory list”. (Maidabino & Zainab, 2011, p.20-21).
2. “The cataloguing and the technical department aims at processing and documenting collections the library’s catalogue system” (Maidabino & Zainab, 2011, p.20-21).

3. The circulation department aims at shelving and storing items for easy inspection by users and other functions such as report offending borrowing, loss of items, pilfering, abuse or damage of items.
4. The special collections department aims at preserving collections, monitoring and controlling access, proper inspection of “collection before and after use and providing insurance coverage for valuable collections” (Maidabino & Zainab, 2011, p.20-21).

### **1.6.3 People Factor**

This involves the human aspect in a particular area of programmes involving the training of staff and awareness creation of “policies and procedures on processes of collection security management”. This includes “awareness of security being formulated and communicated to every employee who works with library resources. It requires collection security roles and responsibilities and staff knowledge of the availability of training programmes” (Maidabino & Zainab, 2011, p.21).

### **1.6.4 Physical Factor**

It includes physical and technical factors to be considered in securing collection environments. The physical aspect consists of the “physical architecture of the building or management of space where collections are held and controlling building entrances within building parameters” (Maidabino & Zainab, 2011, p.21). The physical aspects include “building design, exits, entrances, visibility in reading areas, lighting and installation of security cameras. The technical aspect consists of the technological practices and procedures that the collection security programmes incorporate” (Maidabino & Zainab, 2011, p.21). It includes electronic anti-theft devices, smoke detection, the alarm system at the entrances,

visual cameras at the exits and stack areas. These are aimed at preventing unauthorized removal of collections.

### **1.6.5 Security Culture and Demographics**

Other components of the model are security culture and demographics. Security culture refers to the protection of collections in the library through acceptable awareness of security threats by users and staff. It is the basic cornerstone for the house model on which all other elements are built. Demographics are the moderating factors which include gender, years of work service, educational qualification, job title and occupational rank.

The model explained above emphasizes the need for “protection of collection during the library operation process such as collection processing, storage, circulation, access and use”. This theory illustrates that security measures would be ineffective if the behaviour of those in the home or an organization is not positive towards implementing the security processes. This model has been used by Griffith (2013), Musa (2017), and Urhiewhu, Emojorho and Omah (2018). The details of the theoretical framework of the work are illustrated in Table 1.1:



**Table 1.1: Objectives of the Study and their Theoretical Attributes and Instruments**

<b>Objectives of the Study</b>	<b>Theoretical Attributes</b>
To find out the existing security threats in the selected libraries	Collection Security Management model by Da Veiga and Eloff as cited in Maidabino and Zainab (2013) attributes of “risk assessment” was employed to find out the existing security threats in the selected libraries
To determine staff and user awareness of security	Collection Security Management model by Da Veiga and Eloff as cited in Maidabino and Zainab (2013) attributes of “user/staff awareness of policies” was adopted to determine staff and user awareness of security.
To verify if there is a collection security policy	Collection Security Management model by Da Veiga and Eloff as cited in Maidabino and Zainab (2013) attributes of “education and training” was employed to verify if there is a collection security policy
To examine the collection security measures in place	Collection Security Management model by Da Veiga and Eloff as cited in Maidabino and Zainab (2013) attributes of “physical and technological practices” was adopted to examine the collection security measures in place
To make recommendations	For effective collection security management.

**Source: Author’s Construct**

### **1.7 Significance of the Study**

Research is significant when it is useful and adds value to an existing body of knowledge (Woodwall, 2012). This study is significant as it provides information on the current collection security of the selected academic libraries. It also reveals useful facts that may be employed to provide security in the selected libraries and further help to provide solutions to the threats of collection security. The findings as well provide library management and policymakers of academic libraries and especially Valley View and Ghana Communication Technology University libraries with the necessary urge to adopt relevant policies and strategies toward collection security practices. The study further provides useful knowledge to academicians by providing building blocks upon which future researches can be undertaken.

### **1.8 Organization of Chapters**

This study is organized into six chapters as follows:

Chapter One is the introduction chapter encompassing the background to the study, statement of the problem, the purpose of the study, objectives of the study, scope of the study, theoretical framework, significance of the study and organization of chapters.

Chapter Two covers a review of related literature.

Chapter Three covers the research methodology and discusses the following sub-headings; research design, selection of cases, population, sampling methods, instrumentation, data collection procedures and presentation of data and analysis.

Chapter Four focuses on the analysis and presentation of data.

Chapter Five is the discussion of findings.

Chapter Six presents, a summary of findings, conclusion and recommendations.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

The literature review is the process of reading widely, studies that have been conducted by researchers in the area of study and using it for a researcher's studies by showing areas of agreement and disagreement. It gives a comprehensive summary of other people's work. Also, the literature review gives the researcher knowledge and understanding of what has been done in an area of study. According to Mudavanhu (2017), the objectives of literature review include; to review published literature by summarising relevant researches and theories, to critique literature by assessing the value of the research claim and limitations in the literature, to identify gaps in the literature and to inform new research. The literature review contains sections about the world, Africa, and Ghanaian view on related topics and was reviewed under the following;

- i. Collection security
- ii. Collection security in academic libraries
- iii. User and staff threat to security
- iv. Staff and user awareness of security
- v. Collection security management as a security measure in academic libraries
- vi. The need for an effective collection security policy
- vii. Security measures in academic libraries
  - a. Physical measures
  - b. Electronic measures
- viii. Challenges of library collection security provision.

## 2.2 Concept of Collection Security

Collection security refers to “a strategically designed process to protect library collections (books and non-books) against unauthorized removal or loss and ensures their availability to users” (Maidabino & Zainab, 2012, p.107). Collection security involves safeguarding library resources as well as library building against unauthorised access (Urhiiewhu, Emojorho, & Omah, 2018). In other words, it involves safeguarding the library resources, building, employees and users against abuse from intruders. Corporate Governance Taskforce Report (2004) maintained that protecting library collections involves the following attributes:

- i. Confidentiality: This is making sure that library collections are available to those who are only authorized. This is done by ensuring the privacy of the resources by making sure that resources are available to those who are authorized at various levels. Thus, keeping information on borrowed items from the public.
- ii. Integrity: This is making sure that library collections are accurate, complete and not changed. Thus, the information is original from the source. Therefore, “the management of its security needs to insulate the collection from accidental or deliberate change to the contents”.
- iii. Availability: This involves making sure that library collections are available when needed. Thus, “making sure that authorized users have reliable and timely access to the collection at the time they need it (timeliness) and at the promised times (appropriate opening hours) and through a reliable network system, which makes items available instantly” (Corporate Governance Taskforce Report, 2004, p.12).

Collection security could be physical or electronic. Physical collection securities are collections that can be accessed without the use of equipment. They are in printed form or book format that needs to be protected from security threats whilst electronic collection

security relate to collections that can be accessed via the use of equipment or machine. They are collections in digital form including electronic databases, e-books, e-journals, e-magazines and e-newspapers that are in danger of security threats.

### **2.3 Collection Security in Academic Libraries**

Academic libraries play a critical role in teaching, learning and research. Academic libraries according to Lawal-Solarin (2012) are those that “cater for the needs of those engaged in academic pursuits in higher institutions like the universities, colleges of education, colleges of technologies and polytechnics” (p.13). Academic libraries have print, non-print and electronic resources which enable them to achieve their stated goals and objectives. According to Abubakar (2016), the aim of academic libraries is “largely to provide access to both print and non-print collections and this makes it necessary to develop a balance between ownership and access to information or knowledge” (p.40). In other words, “academic library collections are broad and varied and they support the educational community by satisfying their information needs to date” (Maidabino & Zainab, 2011). This can be achieved by “proper planning and strategy, including the planning for access control in line with the security requirement and the present and future mission or goals of the parent institutions” (Abubakar, 2016, p.40).

Library materials in academic libraries need security in the light of harm to library material by the environment, atmospheric pollution, normal dangers, client and staff conduct and so forth. “Borrowing privilege is an important means of giving access to library collections for personal, educational, and socioeconomic advancement”. Academic libraries need to “create an environment where essential asset materials are identified, dealt with cautiously, and

returned intact to the collection so that they may be used at a later date” (Maidabino & Zainab, 2011, p.16).

According to Akor (2013), one major problem encountered in academic libraries’ security is that the security department of the parent body insists on providing security personnel for the library authority. The situation makes it “difficult for the librarian to control security matters in his/her library as his/her orders may not be obeyed. Further, the security personnel posted to libraries are often not literate enough to identify library information resources and prevent them from being stolen thus, they are often gullible as library users often play on their intelligence” (Usman, Justina & Akor, 2019, p.15).

#### **2.4 User and Staff Threat to Security**

A threat to security consists of investigating a library’s assets, appraising retrospective (past) security breaches to evaluate the worth of its assets (Maidabino & Zainab, 2012). Wallace (2008) observed that “threats to collection security come in many forms, and range from intentional acts such as book theft, vandalism, or identity theft to dangers which originate from unintentional factors such as flood, fire and the natural deterioration of collections” (p.23). Gupta and Madhusudhan (2018) posited that security threats in the library include stealing of books placed on open shelves and mutilation of books in a form of underlining of sentences and writing words in the margin of the book. According to Pradhan and Bhoi (2015), the major threats of library materials may be broadly divided into four groups, namely:

- i. “The nature of the material itself
- ii. Natural and man-made disasters
- iii. The environment in which it is kept

iv. The way material is handled” (p.79)

University libraries are prone to various security threats, Salaam and Onifade (2010) observed that vandalism of library materials has been an age-long threat of libraries. Holt (2007) observed that “libraries are faced with the threat of physical materials theft, data theft and money theft”. It can be observed that “the threat of collection security is of growing concern to academic libraries and librarians. As a result, there is a vast literature on problems relating to library security in academic libraries”. Ugah (2007) considers “library security threat as formidable obstacles to information access and use. Such acts are serious problems that can result in user dissatisfaction” (p.10). In his argument, he “identified major security threats in libraries to include: theft and mutilation; vandalism; damages and disaster; over-borrowing or delinquent borrowers; and purposefully displacing arrangement of materials” (Ugah, 2007, p.10).

Furthermore, delinquent library clients and staff have contrived numerous methods of wrongfully eliminating information materials or resources from the library. Clients participate in different delinquent acts through various techniques. Among these techniques is the conscious keeping of acquired books past the due date, eating in the library, damaging furnishings and books, dozing, talking and upsetting other library clients. Hiding of books to monopolize it is also a delinquent act (Oyedum, Sanni and Udoakang, 2014).

According to Adewuyi and Adekanye (2011), users use various techniques in stealing the documents and these include the following:

- i. “Hiding items in clothes
- ii. Throwing stolen item(s) through windows and doors when people are not observing



- iii. Putting library item(s) in handbags or briefcases
- iv. Collaborating with library staff to steal library collection
- v. Selling of library books by library staff to supplement poor monthly salary and making friends with porters before carrying out their illegitimate plans” (as cited in Pradhan & Bhoi, 2015, p.79).

These methods of threats of stealing information resources according to the researcher have caused great losses to academic libraries as they have to look for other sources of funds to acquire new materials for their users. Jato (2005) on the other hand, identifies the consequence of delinquent behaviour on users and the library. According to him, immoral behaviours among the users result in the following:

- i. “It reduces the library stock
- ii. It reduces the life span of the mutilated library materials
- iii. It leads to extra cost, time, and personnel needed to replace the stolen and mutilated library materials
- iv. It prevents people from locating needed materials
- v. It damages the image of the library
- vi. It can lead to low performance of students in examinations
- vii. It leads to frustration among users”.

Moraa (2013) identified broad security threats in academic libraries to include the following:

- i. Disruptive conduct: It is a security danger in libraries. A few examinations recognize that troublesome or criminal conduct can mess security up in the library. Troublesome benefactors incorporate the individuals who are inebriated or utilizing drugs, intellectually upset and some adolescent clients. Momodu (2002) demonstrates that

libraries have confronted changing degrees of misconduct in the utilization of their assets. The degree of this issue changes starting with one library then onto the next however is by all accounts all-inclusive.

- ii. Unsecured library: The writing on collection security shows that security breaches regularly happen when the library premises are left unsecured. Oder (2004) keeps up that safety effort, for example, oversight, watching, and surveillance is inadequate in libraries and keys are kept unstable, if not on the display of the clients.
- iii. Disasters: Disasters are security dangers that compromise scholarly library collections. Aziagba and Edet (2008) recognize disaster as natural and man-made. We have almost no power over catastrophic events, which come typically because of the flood, landslides, earthquake, storm, typhoon, or tropical storm. These have been experienced. Flood and water harm are especially threatening to library collections.

Ayoung, Boatbil, and Banbil (2014) reported on how secure library collections are in polytechnic libraries in Ghana and found that the common security breaches to library collections include theft, mutilation, book theft and non-return, intentional mis-shelving and impersonation. Also, Yeboah, Kwafoa and Amoah (2017) reported that security breach exposure to and experienced by staff include property theft, verbal abuse from users, harassment by users and encounters with unstable staff. They also stated that 92.82% of the reference/clients service sections are the most prone to security threat in the library. Further, Yeboah, Kwafoa and Amoah (2017) stated that it was common for academic libraries to undertake a risk assessment of their tasks. This gives these libraries a thought of the potential shortcomings and threats in their tasks that might grow into catastrophes if not appropriately managed.

## **2.5 Staff and User Awareness of Security**

In an institution, awareness of security is the basis of preventing a threat to library resources and this shows that awareness of the library by both staff and user is an important ingredient for the organization to achieve its stated goal and objectives. Security awareness can be seen as “one's knowledge of security threats and the countermeasures that can be used to prevent such threats” (Siponen, 2000 as cited in Yerby, 2018). It may also be referred to as having an understanding of security to prevent security threats in the organization. “A primary goal of security awareness within the organization is to heighten the importance of security best practices and make users aware of the consequences associated with security infractions” (Yerby & Floyd, 2018, p.4).

However, it has been observed that many of the security threats are as a result of staff or users' careless attitudes and behaviours of not taking good care of the resources of the library. The components of security awareness are the staff in the library and users who come to the library. This implies that many of the security breaches are as a result of human beings whether within or outside the library. Physically, staff and users mishandle or misuse library resources such as mutilation and graffiti. Electronically, it includes the sharing of passwords with people. Staff and clients in the library are ordinarily not mindful of the results to themselves or the association when security breaches happen. While representatives can be viewed as the most fragile connection in information security, the individuals who follow and agree to security strategies, rules, guidelines, and best practices are the way to reinforcing the association's information security foundation. The absence of security mindfulness prompts ignorance, carelessness, unresponsiveness, apathy, and obstruction which are the base of client practices that lead to IT security-related weaknesses and misfortune.

Scholars such as Akussah (2013) have indicated the need for orientation for new staff and users of systems, teaching them the need for proper use of systems. He indicated that users need to be taught about the misuse of systems and the dos and don'ts of the use of the system. Therefore, "security awareness should be formalized in organization policy and procedures and communicated to every employee who works with information resources" (Saffady, 2005).

## **2.6 Collection Security Management in Academic Libraries**

According to Maidabino (2010), the "threat of collection security is of growing concern to university libraries and librarians. As a consequence, there is a vast literature on a range of problems concerning collection security in university libraries". Library security management has to do with taking fundamental measures to guarantee that the materials accessible for use in the library are kept in acceptable condition and kept from being taken. The objective of library security is to give a sheltered climate to items, individuals and spots which are held to be of significant worth (Wallace, 2008). As such, Collection Security Management includes the detailing of collection security approaches and execution of methodology and cycles to alleviate hazard, forestall weaknesses and guarantee access (Maidabino and Zainab, 2012).

It is the safety and security measures taken to safeguard and prevent library collections, materials, and infrastructure from risk and danger to their longevity, accessibility and availability of information services (Musa, 2017).

The components of collection security management include appropriate administration definition with a security policy (written plan) for library security, the assignment of a library security official, and the commitment of different workers in managing library's security dangers. The security policy should be judged and assessed (Soete 1999 as referred to in

Maidabino and Zainab, 2012). It assumes a significant part in the availability of resources held in libraries, by relieving the dangers and weaknesses related to robbery and maltreatment of library property (Maidabino and Zainab, 2012). Collection security management in libraries can be conceptualized to mean the general way wherein collection security approaches, projects, methodology, or measures are conveyed to moderate chance and guarantee access. Library and information managers must have a clear vision and centre around the contemporary truth of security breaches in college libraries, particularly those focusing on the collections. This is one of the numerous things librarians should worry about; in the event that they are to effectively deal with a thriving and proficient library.

## **2.7 The Need for an Effective Collection Security Policy**

A policy is a plan or what the library intends to achieve concerning security. In defining security policy, various scholars have come out with different definitions; Avondale College Library (2008) defined security policy as “a written document that spells out how persons within a building can feel safe and secure, and the building, facilities and resources held securely”. Also, a security policy is defined as “a clear, comprehensive, and well-defined set of plans, rules and practices that regulate access to a library’s system and the information it holds” (Ayoung, Boatbil & Banbil, 2014). According to SANS (2014), a security policy is “typically a document that outlines specific requirements or rules that must be met”. It is also seen as “a formal document that addresses acceptable and unacceptable behaviour of users concerning dealing with information assets in a secure manner” (Alotaibi, Furnell, & Clarke, 2015). Currently, a security policy can also be a blueprint that is used as a guiding principle towards the attainment of a set goal (Yeboah, Kwafoa & Amoah, 2017).

A security policy is “part of a formal collection security control and a baseline statement of the collection security tasks which should be followed by the employees” (Alotaibi, Furnell, & Clarke, 2015), and it involves technical control over the library system such as access limitations, audit control software, firewalls, and anti-viruses among others (Akussah, 2013). Collection security is divided into “high-level security policy and lower-level security policy” (Baskerville & Siponen, 2002 as cited in Alotaibi, Furnell, & Clarke, 2015). The high-level security policy concerns security objectives whilst low-level security policy follows a security objective in “response to the identified risks reflecting the library objectives or addressing countermeasures”. The following are the reasons why there is a need for an effective collection security policy;

- i. It protects the information, staff and the library
- ii. It serves as a guide and training grounds for both staff and users
- iii. It helps the library to handle its collection well
- iv. It spells out measures to curb security breaches
- v. It helps the library to manage its collections
- vi. It guides the library to assess what it has.

A written policy will not only help to assess how many items a library has, but it will also help in the next step: to identify the problems information resources may have and what needs to be prioritized (Abubakar, 2016). Purtell (2007) indicated that any effective collection security policy should reflect the vision of the library and a commitment to risk management. Also, Saffady (2005) as cited in Ayoung, Boatbil and Banbil (2014) pointed out that these policies in the library need to be reviewed periodically and updated to meet the changing trends.

Kumbhar and Veer (2016) investigated security systems used in college libraries and revealed that every academic library needs to implement policies, security systems, procedures, rules and regulations for dealing with safety and security concerns. A study carried out by Ayoung, Boatbil, and Banbil (2014) on “the assessing the awareness of the existence of security policies” found out that all the polytechnics studied did not have any form of written security policy for their libraries. In the same way, Yeboah, Kwafoa and Amoah (2017) investigated the security of staff in academic libraries. They found out that the libraries studied did not have any laid down security policies for either staff or patrons.

Conclusively, it can be realised that collection security is very important for every academic library and as such, there is the need for it to be implemented by libraries that do not have it.

## **2.8 Security Measures in Academic Libraries**

Security measures help academic libraries to safeguard their collections against unauthorized access. Generally, Moraa (2013) indicated that libraries should create and implement security measures. These should, at least, include entry and exit procedures, room registration procedures, and entry key management procedures.

- i. **Entry and Exit Procedures:** It investigates the type of personal property guests are permitted to bring into the library. People entering the library ought to do as such with the understanding that all property in their ownership can be investigated by the library security personnel upon passage and exit. At the exit, all people must go through a burglary location gadget, which will sound an alert if a tagged collection item is carried through it.

- ii. Room Registration: Libraries with public reading rooms; study rooms, PC index centres, or multimedia rooms, should set up security techniques for using the rooms. Necessities for appropriate distinguishing proof are needed before utilizing these kinds of spaces characterized inside the library approaches and systems.
- iii. Entry Key Management: Libraries ought to have a policy on the custody and control of keys and access cards to all entryways inside the office. Methods and approaches ought to be characterized. For example, the process for issuing keys and access cards, identification of various areas which are included within the access and who should have access to each type of area, required refundable or non-refundable deposit for keys and access cards, nature and type of appropriate forms, and determination of the number of keys allowed per person (Moraa, 2013).

These security measures that the library can put in place to curtail theft include physical and electronic.

### **2.8.1 Physical Security Measures**

The physical measures involve “building design, lighting, planning for public places, building interiors, entrances, exits, shelves, reading areas, special collections area, office location, windows, doors and the installation of surveillance cameras” (Maidabino & Zainab, 2012). The physical security measures “should begin with the physical architecture of the building or space where collections are held, controlling building entrances and exits; requiring IDs to access general as well as rare and special collection areas; and scheduling patrols within building parameters” (Maidabino & Zainab, 2012). The major physical security measures used in academic libraries is the security guard.



In a study conducted on College Libraries, Kumbhar and Veer (2016) reported that manual security systems include security guards, good building, lock and key systems, physical checking, access control, installing grills on windows, installing after-hours security lighting, fire extinguisher and security equipment, physical checking for the user, signature of every user and security clearance procedures.

According to Pradhan and Bhoi (2015), there is a need for academic libraries to get a dedicated security officer to guard the library. This presupposes that the security personnel will guard the gate by controlling unauthorized people from getting access to the place, check suspicious users leaving the library, make users obey rules in the library and deal with threats of theft of library resources. Similarly, Akussah (2013) agrees with Pradhan and Bhoi (2015) and propose some human-based protection that can be used. These include effective management, education and awareness creation, laws and ethics. He emphasizes that there must be effective management to put in place ethics and laws and patrons must be made aware by orienting them about the library ethics and laws. The researcher believes that management is responsible for putting in place library rules and regulations, creating awareness among patrons and staff and making sure that rules are duly observed by all.

### **2.8.2 Electronic Security Measures**

Electronic measures refer to “alarm systems, burglar protection systems, motion detectors, special devices to control access and radio frequency identification (RFID) systems” (Maidabino & Zainab, 2012). Electronic security measures emphasize the use of technological devices to “handle collection security processes, control security breaches and installing of security systems at strategic entry points of libraries”. This involves “the use of security systems such as electronic anti-theft devices, visual cameras, smoke detection and

alarm systems at entrances, exits and stack areas in libraries” (Maidabino & Zainab, 2012). These “electronic security systems are modern technological devices that are used with the aid of an electrical apparatus to secure library materials” (Ozowa, Aba, & Aba, 2016). These systems help academic libraries to keep in line, minimize library theft and unethical losses (Gupta & Madhusudhan, 2017). This ensures monitoring and prevents removal of the unauthorized collection from the library. The major electronic security measures used in academic libraries are closed-circuit television (CCTV), 3M security gate, biometrics and radio frequency identification.

#### **2.8.2.1 Closed Circuit Television**

It makes use of a video camera to transmit a sign to a particular or constrained arrangement of monitors. It gives computerized or video recording of wrongdoing, brutality, robbery, misconduct, and so forth (Pradhan & Bhoi, 2015). “The primary purpose of a CCTV system is detection, observe, monitor and record observation, provide real-time information for detection identification, recording, provides after the fact material for assessment, analysis and review, usually with overlaid time, date and location information.” (Jodhar & Kulkarni, 2000 as cited in Omojokun, Ijiekhuamhen & Ojeme, 2015, p.52). The significant advantages of CCTV are:

- i. It acts as a deterrent
- ii. It can empower specialists to be deployed more viably.
- iii. Recordings can aid post occurrence examination.
- iv. It can be utilized to help with passage control courses of action into non-open territories.
- v. It can give progressively broad data to aid the administration of the premises.

- vi. Where the premises are watched out of hours it is an important guide for site checking (Pradhan & Bhoi, 2015).

McCahill (2002) posit that libraries can use CCTV to spot guests and workers, monitor work areas, deter theft and make sure the security also can use it to observe and record proof on patronage and employees' misconduct within the library. Due to the benefits of CCTV, Ramana (2010) as cited in Ozowa, Aba, and Aba (2016) stated that "Closed Circuit Televisions used in the libraries can enhance the ability to control book thefts and tearing off the pages from books and magazines". It does not only control but minimizes and averts theft and unethical losses in the library.

#### **2.8.2.2 The 3M Security Gate**

The 3M machine involves several elements such as 3M Tattle-Tape security strips, detection systems and circulation accessories (Pradhan & Bhoi, 2015). The main purpose is to protect the library resources from theft or loss of items.

#### **2.8.2.3 Biometrics**

Biometrics may be referred to as automatically identifying someone based on behavioural and physiological characteristics. The behavioural characteristics include voice recognition, signature, manner and the likes whilst physiological characteristics eye retina, facial patterns, fingerprints among others (Pradhan & Bhoi, 2015). Biometrics help in personal authentication better than the use of passwords. This machine can be of help to the library for various purposes such as identifying the authorised persons to use the library and prevent unauthorised persons from causing harm to library resources or staff in the library. A few

libraries within the international arena have already switched over to biometric identity. The commonest form of biometrics that is used to safeguard library materials is the fingerprint match.

#### **2.8.2.4 Radio Frequency Identification**

Radio Frequency Identification is comprehensively characterized as innovations that utilization radio waves to automatically recognize people or objects. It distinguishes the individual by storing a serial number on a central processor appended to an antenna (Pradhan and Bhoi, 2015). The primary focus on the present libraries in embracing RFID is to improve library tasks by expanding the productivity of library transactions, lessening work environment wounds, and improving services for library clients (Mamdapur, & Rajgoli, 2011). The tag joins book recognizable proof and book security into one label, limiting labelling time and cost. Patron self-checkout frameworks are likewise accessible to libraries that join RFID innovation. Users can deal with several items at the same time and the security devices can be turned off very quickly. A user of the RFID can be allocated for theft detection so that no other tag is needed since the antitheft device is in the label, the security gates should not be joined to a framework or interface with the library's focal information base (Usman, Justina, & Akor, 2019).

Kumbhar and Veer (2016) reported in a study of security systems used in College Libraries, their findings revealed three security system components, namely: physical security, security measures and the human element. They indicated that when all security measures become operational and integrated, then a security system is generated which will incorporate many security principles. They indicated that electronic security systems such as biometrics, CCTV and RFID have many advantages. These include; making the work of a librarian easier,

saving users and staff time, providing rapid lending of library materials and it is highly reliable.

A research conducted by Ayoung, Boatbil, and Banbil (2014) found out that security measures include the periodic search of patrons and staff when exiting the library; items that can cause damage to books not to be allowed in the library; the use of security guards; registration of all library users; and orientation of users on how to handle and use library collections. Disparately, Musa (2017) studied library security and service delivery in Federal University Libraries in North Central, Nigeria and found out that the libraries did not adopt any type of security systems such as Close Circuit Television, A.V. security, surveillance cameras, radio frequency identification system and door intrusion alarms. Musa (2017) found out that the Federal University Libraries in North Central, Nigeria used the following measures; installation of electronic security system, use of security personnel at the main entrance, occasional check on library users in the reading/shelf areas, continuous security officers patrol, restriction of access to important databases through the use of users' ID or password, training and re-training of staff on security, 24 hours security guard, installation of window burglary and insurance of library resources as security strategies are implemented at high extent. Musa's (2017) findings indicate that majority of the libraries use physical measures than electronic measures.

Akussah and Bentil (2010) recommended that libraries "should invest more in electronic resources, which will reduce to a large extent the incidence of users physically handling documentary materials. This will enhance multiple accesses to library materials with little damage". The researcher also thinks that the use of both physical and electronic control

measures will go a long way to subdue the rate of collection security in academic libraries even though it cannot control the rate of theft in the libraries.

## **2.9 Challenges of Library Collection Security Provision**

Anunobi and Okoye (2008) stated that “academic libraries are faced with hybrid challenges of managing resources and are challenged to acquire the necessary skills.” One such challenge is the threat of collection security for print and non-print resources.

Security is a significant and complex test in contemporary social orders. Not just people require security and wellbeing of their lives and properties, yet in addition associations, for example, libraries. Academic libraries, specifically, endeavour to give information resources in both print and non-print to help the educational services of the university community and mankind everywhere (Maidabino, 2012). As indicated by Kumbhar (2016), libraries are confronting different security-related issues like irritated attacks, straightforward attacks, burglary, robbery, badgering, delinquent exercises, pickpockets, wrongdoing, which are submitted by staff or clients. These offences may influence any association, as there is no segregation between little, medium and neither huge association nor does the reason for which they exist gain them invulnerability.

McComb and Dean (2004) suggested that “security measures such as supervision, patrolling, surveillance is lacking in libraries and to add to the problem, keys to libraries' vital places are kept unsecured or open to easy-sight of users”. Nwalo (2003) also asserted that “a major problem encountered in library security is that the security department of the parent body (in the case of academic libraries) insists on providing security personnel for the library. These security men are loyal to the security department and not to the library authority. This

situation makes it difficult for the librarian to control security matters in his library as his orders may be flouted”.

Ayoung, Boatbil, and Banbil (2014) investigated how secure library collections are in polytechnic libraries in Ghana. They found out that the challenges faced by various libraries in an attempt to curb delinquent acts include the lack of electronic surveillance, lack of funding, inadequate management support, lending without proper procedure, inadequate staff, a proper place to keep collections, poor attitude of library staff and the lack of user awareness of what constitutes some security breaches. On the other hand, Musa (2017) investigated library security and service delivery in Federal University Libraries in North Central, Nigeria. He found out the challenges of implementing library security to include inadequate funding of the library, lack of staff, sabotage of library security by members of staff, poor lighting in important areas of the library, irregular power supply to implement electronic security, lack of institutional security policy, poor/non-implementation of security policy, a conspiracy between staff and users, non-reporting for duty on time, poor staff attitude to users.

## **2.10 Summary of the Literature Review**

Academic libraries have been tormented with security perils for a long time. It is difficult to replace materials that are taken from the libraries or harmed. The academic libraries may not have the needed resources to purchase a replacement copy. This is because academic libraries do not have enough funds to purchase resources; in this way, security is principal to guarantee resources for long term use by specialists and users. Security avoidance is the best approach to avoiding incidents and mischief. Figure 2.1 shows the challenges institutions may face if the collection security policy is not properly implemented:

**Figure 2.1: Collection Security Policy Challenges**



**Source: Alotaibi, Furnell, and Clarke (2015)**

From the diagram, one can realise that there are four main challenges to collection security. These include; security policy management and updating, security policy promotion, non-compliance with security and shadow security. Security policy management and updating security policy, procedures and training are neglected by many academic libraries. Concerning security policy, promotion requires the need for a comprehensive plan to promote and raise awareness of staff. Non-compliance with security considers human problem such as



lack of security tools and finally shadow security means the mechanisms and a security policy that staff are required to comply.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

Research methodology refers to the orderly way of solving a research problem (Lehmann, 2010). The research methodology is important because it helps the researcher to know the design, method, procedure, instruments to use in data collection and analysis of data. This chapter covers the research design, research approach, selection of cases, selection of subjects (population and sample), data collection instruments, data collection procedure and data processing and analysis.

#### 3.2 Research Design

The researcher used a case study methodology. Yin (2009) saw a case study as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context”. According to Bryman and Bell (as cited in Lang, 2010), the key advantages of case study researches are that they help to gain in-depth and rich data, and explain the unique features of a case.

A case study could be descriptive, exploratory or explanatory. Specifically, the study employed an exploratory case study to help in the better understanding of the topic under investigation. According to Zikmund and Babin (2010), exploratory research is ideal because it clarifies ambiguous situations and ascertains potential ideas concerning a topic. According to Dooley (as cited in Omenyo, 2016), a case study can employ “various data collection processes such as observation, interviews, documents, questionnaire and others” (p.32). Utilising the exploratory case study method, this study gathered in-depth information from

the participants in the field to get, rich data and subjective view of the participants based on the topic under investigation.

### **3.3 Research Approach**

The study employed a mixed-method approach to gather both qualitative and quantitative data. Mixed method research is “a type of approach in which a researcher or team of researchers combine elements of qualitative and quantitative research approaches for the broad purposes of breadth and depth of understanding and corroboration” (Almalki, 2016). This approach allows the researcher to collect both quantitative and qualitative data at the same time and then combine the information in the interpretation of the overall findings (Schoonenboom & Johnson, 2017). This approach was adopted based on the assumption that collecting both sets of data (quantitative and qualitative) helps to better understand the research problem.

Also, it has been argued by researchers that using a single method has weaknesses. Therefore, adopting a mixed-method would help this study to eliminate the weaknesses of both quantitative and qualitative research methodologies (Venkatesh, Brown & Bala, 2013). The researcher used a mixed-method by gathering quantitative data from the level 400 students through the use of questionnaire and qualitative data from the library staff through the use of interview for both Valley View and Ghana Communication Technology Universities.

### **3.4 Research Setting**

#### **3.4.1 Valley View University (VUU)**

The Valley View University is a principal chartered private university in Ghana with the vision of becoming a leading Centre of Excellence in Christian Education' (Valley View University, 2018). The mission statement of the university is to achieve academic, spiritual, vocational and technological excellence in a context that prepares lives for service of God and humanity' (VUU, 2018). This vision and mission of the university provide some insights into its ecclesiastical origins; even as efforts are being made to wed the theological with secular education.

The inception of the Valley View University can be traced to the setting up of the Adventist Missionary College at Bekwai-Ashanti in 1979. The Adventist Missionary College was established by the West African Union Mission of Seventh-day Adventists, to prepare priests for the Seventh-day Adventists. The Missionary College was moved to Adentan close to Accra in 1983, where it was housed in a rented premise. The Adventist Missionary College was moved, once more, from Adentan to its present site at Oyibi in 1989; and was renamed the Valley View University (VUU, 2018).

The library of the Valley View University is called Walton Whaley Library (WWL). The mission of the library is to provide information services and resources that meet the spiritual, academic and research needs of its users. The library has access to both print and electronic resources that support the teaching and research needs of its patrons. The print resources include books and periodicals whilst the electronic resources include electronic journals, academic databases and e-books for students and faculty to carry out their academic work. The collection covers business, education and religion. The library provides services such as

printing, photocopying, reference services, library instruction and charging and discharging services.

### **3.4.2 Ghana Technology University College (GCTU)**

Ghana Technology University College, now Ghana Communication Technology University was initially “known as Ghana Telecom University which emerged from the separation of Ghana Telecom Company and the University. It was formerly known as Ghana Telecom Training Centre (GTTC). GTTC was established in 1948 by the Post and Telecommunications Department as a broadcast communications training school by the then British Administration”. The reason for the foundation of the training centre was to train experts and linesmen to work and keep up media transmission equipment and plants (Ghana Communication Technology University, 2019).

Ghana Communication Technology University is “one of Ghana’s leading accredited institutions of higher learning. Its primary mission is to expand ICT based education in Engineering, Information Technology and Business in Ghana. The mission of the University College is to be a centre of excellence in education, research, intellectual creativity and innovation. The vision of the University College is “to be a focal point of scholarly greatness, providing training in telecommunications and informatics to meet the needs of Ghana and Africa. The University College is to promote cutting-edge technology, leadership development and enterprise culture to improve the delivery of value to society” (GCTU, 2019).

The GCTU library provides products and services to faculty and students to aid in their learning and teaching. The library provides access to both print and electronic resources such

as books, periodicals, electronic databases and e-books. The library offers services such as circulation, reference and reprographics. The GCTU library “provides information in the form of short answers to specific questions and guidance in locating material for patrons who appear in person, assistance to patrons in the use of the Library and teaching basic research methodology” and providing bibliographic verification.

### **3.5 Selection of Cases**

Valley View University and Ghana Communication Technology University were selected as the cases for this study. The justification for using these cases is that they are both private universities and they are part of the top private universities in Ghana. Valley View is the premier private university and first chartered private university in Ghana (Julian, 2019) and it awards its certificates. The library has a lot of experience in collection security threats than subsequent private academic university libraries. Ghana Communication Technology University was ranked the best private universities in Ghana in 2020 (Gracia, 2020) and it is well established.

### **3.6 Population of the Study**

A population is the total number of people that is of interest to a researcher and as such, the researcher wants to sample to make generalizations and this saves the researcher’s time, effort and resources (Metler & Charles, 2011). Based on this, the target population for this study were all the library staff (Professionals, Paraprofessionals and non-professionals) and level 400 students of Valley View and Ghana Communication Technology Universities. The total number of library staff in Valley View and Ghana Communication Technology Universities were eleven (11) and seven (7) respectively (Table 3.1).

**Table 3.1: Population for Valley View and Ghana Communication Technology Universities**

<b>Staff</b>	<b>No. of library staff in Valley View</b>	<b>No. of library staff in Ghana Communication Technology University</b>
Professionals	3	3
Paraprofessional	5	1
Nonprofessional	3	3
<b>Total</b>	<b>11</b>	<b>7</b>

**Source: Valley View and Ghana Communication Technology Universities (2019)**

All staff were used because they play roles in managing the library resources. They are expected to offer better security policies thereby making sure that the materials are available to the users when needed. On the other hand, the total number of level 400 students for Valley View University and Ghana Communication Technology University was four hundred and sixty (460) and five hundred and thirty (530) respectively, making a total of nine hundred and ninety (990).

**Table 3.2: Population for Valley View and Ghana Communication Technology Universities level 400 students**

<b>Students (Level 400)</b>	<b>No. of student</b>
Valley View	460
Ghana Communication Technology	530
<b>Total</b>	<b>990</b>

**Source: Valley View and Ghana Communication Technology Universities (2019)**

### **3.7 Sample Size**

A sample is defined as “any number of characteristics within a group that statisticians use to conclude the subjects in a study” (Kenton, 2019, para.3). Neuman (2014) stated that “for equal accuracy, a researcher can select 10% of the population above 1000 as compared to 30% of numbers below 1000”. Therefore, the researcher selected thirty per cent of the population of 990, which gives a sample size of 297.

Due to the small size of the library staff population, all the library staff were used, therefore there was no need for sampling.

### **3.8 Sampling Techniques of Students**

Sampling is “a technique (procedure or device) employed by a researcher to systematically select a relatively smaller number of representative items or individuals (a subset) from a pre-defined population to serve as subjects (data source) for observation or experimentation as per objectives of his or her study” (Sharma, 2017, p.749). Sampling is “a procedure the researcher uses to select people, places or things to study; it involves the process of selecting some individual objects from the population to the extent that the selected group comprises elements representative of the characteristics found in the entire group” (Kothari as cited in Nihuka, 2015). In other words, it is “the process of selecting a sample from the population” by using probability (random) or nonprobability (non-random) sampling or both methods. Stratified sampling is “a type of probability sampling that involves the division of the population into smaller groups called strata” (Sharma, 2017). The stratified sampling can be proportionate and disproportionate.



Proportionate sampling technique was used for this study. This is where the researcher divided the population into subgroups and then the researcher applied simple random sampling to make a selection of each subgroup. This helped the researcher to give a fair representation of each subpopulation and allows for generalization from the sample to the population thereby ensuring validity in data collection. The researcher calculated the proportionate sampling by using the formula below:

$$P.S. = \frac{\text{Population of level 400 students in each university}}{\text{Total level 400 population of both universities}} \times \text{Sample size}$$

Total level 400 population of both universities

P.S. refers to proportionate sampling

$$P.S. \text{ for Valley View University level 400} = \frac{460}{990} \times 297$$

$$= 138$$

$$= \mathbf{138}$$

$$P.S. \text{ for Ghana Communication Technology University level 400} = \frac{530}{990} \times 297$$

$$= 159$$

$$= \mathbf{159}$$

The table below gives information on the proportionate sample size of both universities.

**Table 3.3: Sample Size of Valley View and Ghana Communication Universities Level 400 students**

Universities	Number
Valley View	138
Ghana Communication Technology	159
<b>Total</b>	<b>297</b>

The selection of elements of each stratum was done using the simple random sampling method. Simple random sampling may be defined as a type of probability or random sampling where every individual in the population is given the equal chances of being selected. Similarly, Sharma (2017) defined this technique as “where each member of the population has an equal chance of being selected as subject and the entire process is done in a single step with each subject selected independently of the other members of the population”. The researcher used the simple random sampling because it is a representation of the population thus the researcher can conclude from the sample to the population and it is fair since every member has an equal chance in the selection. The researcher used this technique to acquire information from a targeted sample of both Valley View University and Ghana Technology University College level 400 students on practices concerning collection security.

After the stratification, the researcher used the simple random to make the selection. According to Elfil and Negida (2017), simple random is used when all the population is accessible and the researcher has all the list of all the subjects in the population and as such this method became very necessary for the researcher and based on the scholars view, the researcher used the following steps:

1. The researcher obtained the list of all level 400 students from the Academic Affairs of both universities and assigned numbers to each student. For example, Valley View level 400 students were assigned numbers 01 to 460 on their list. The numbers were written on the sheets of paper which were then folded and placed in a box.
2. The researcher closed her eyes and picked out 138 papers one at a time which was the sample of Valley View.
3. The researcher then ticked the students with those numbers on the list.

4. The process was repeated for Ghana Communication Technology University till all the 297 level 400 students were randomly selected from each stratum.

The above steps were used by the researcher to give everyone the fair chance of being selected. It is necessary to note that this step was carried out by the researcher before going to the field to collect the data. Thus, the researcher had identified the respondents before administering the questionnaire.

### **3.9 Data Collection Instruments**

The researcher used both questionnaire and interview schedule (See appendices A and B). The questionnaire was used to gather data from students for the study. This is where the researcher asked respondents predetermined questions appropriate to the study. Kabir (2018, p.208) described the questionnaire as “a research instrument consisting of a series of questions and other prompts to gather information from respondents.” It is fast and easy to reach a lot of respondents within the shortest possible time. The questionnaire was made up of both open-ended and closed-ended questions. The questionnaire includes the following sections: Section A – Background data which is the respondents’ background characteristics such as the institutions, gender, age-range and programme offered by level 400 students, Section B – security threats, Section C – User awareness of security, Section D – Collection security measures and Section E – Recommendations for improvements.

The researcher used a structured interview for the library staff. In-depth interviewing is “a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, programme, or situation” (Boyce & Neale as cited in Information Resources Management Association,

2018). In-depth interview was used because it helped the researcher get rich information on the phenomenon under study. Its ability to capture verbal and non-verbal actions added up to making the narration richer (Guion, Diehl & McDonald, 2011).

A structured interview is based on “a questionnaire with a sequence of questions, asked in the same order and the same way of all subjects of the research, with little flexibility available to the researcher” (Edwards & Holland, 2013). The major objective is “for neutral interviewers to obtain comparable information from a potentially large number of subjects”. The researcher used it because it allowed for a set of predetermined direct questions that required immediate response as supported by Saunders, Lewis and Thornhill (2012). Though it is not flexible, it is easy to quantify.

### **3.9.1 Pre-Testing**

Pretesting (or pilot testing) refers to testing a survey on a small group of participants who are similar to those who form the population of interest (Allen, 2017). Pretesting is “an important way to pinpoint problem areas, reduce measurement error, reduce respondent burden, determine whether or not respondents are interpreting questions correctly, and ensure that the order of questions is not influencing the way a respondent answers” (Ruel, Wagner, & Gillespie, 2016, p.2). According to Ornstein (2013), the aim of pretesting is to detect and remedy problematic questions before data collection. In other words, the aim is to enhance existing designed questions.

Pre-testing of the instrument was done in late January 2020 at the University of Ghana, Legon. The main aim was to test the clarity of the questions and duration of the questionnaire administration. The choice of using the University of Ghana was that it is an institution that was closer to the researcher and the University of Ghana Balme Library is one of the largest libraries in West Africa that deals with collection security threats. The researcher used ten (10) level 400 students since they had similar characteristics with those of the level 400 students of Valley View and Ghana Communication Technology Universities.

### **3.10 Data Collection Procedure**

Data collection procedure refers to ways and means that the researcher follows in the collection of data in the field. Before the data collection, the researcher collected a letter from the Department of Information Studies and sent it to Valley View and Ghana Communication Technology Universities school management. This helped the researcher to introduce herself to the authorities and arrange with them for the days of data collection.

The first phase was the collection of quantitative data from level 400 students in both Valley View and Ghana Communication Technology Universities. The questionnaire was self-administered to the Level 400 students in the selected universities and collected as soon as they were completed by the participants. The instrument administration, on the average, lasted for 15 to 25 minutes per respondent. The administration of the questionnaire was done in early February 2020.

On the other hand, the second phase was the collection of qualitative data from the library staff in both universities. The researcher went to the library to personally interview the library

staff. Each interview lasted for 25 minutes. The interview of library staff of both universities was conducted from the middle to the end of February 2020.

### **3.11 Data Presentation and Analysis**

Data processing is where the data (raw facts collected from the respondents) is transformed or manipulated (by using software) to give useful information. The processing of data takes the form of editing, coding and entry and analysis. Quantitative data collected from the respondents were analysed using the Statistical Package for Social Science (SPSS). SPSS was used because it is easily used to analyse data and gives a clear indication of response frequencies. The researcher used the specific software now called the IBM SPSS Statistics version 23. First, the questions were loaded into the variable view. The researcher entered the responses of the respondents into the data view and generated outputs in a form of frequency table, pie chart and histogram to do the analysis. The researcher used a Likert scale to calculate the responses for the user awareness of security and collection security measures which were 5-level Likert item to statements ranging from strongly disagree, disagree, neutral, agree to strongly agree. The researcher used the SPSS to calculate the percentage of each response ranging from strongly disagree to strongly agree. After that, the researcher used the SPSS to calculate the mean which is the same as the Likert score of each response.

On the other hand, the researcher used the Nvivo qualitative software to analyse data collected from the library staff. The process began with repeated listening to the participants' verbal descriptions on the tape recorder. Loubere (2017) says that the fullest and richest data is gained from transcribing all interviews verbatim. The researcher then read and reread the verbatim transcriptions and then identified and extracted significant statements.

The transcribed data were analyzed as follows: the researcher familiarized herself with the data by reading through. The purpose was to obtain a general idea of respondents' thoughts concerning the questions. This was followed by the creation of codes based on the objectives of the study. These codes included: security threat available and staff and user awareness of security. The researcher then coded the data by dividing the data based on the codes. For example, all responses relating to "existing security threats in the library" was copied and pasted under the code. This helped the researcher to look at the responses individually to identify further categories and emerging themes based on the objectives of the study.

### **3.12 Ethical Consideration**

The ethical concern in research is about creating a relationship which upholds mutual respect and responsibility, in which participants are pleased to candidly respond, to obtain valid results. This study complied with the University of Ghana Code of Ethics of conducting research which includes informed consent, confidentiality, anonymity and respect of the privacy of the respondents and participants (UG, 2014).

#### **3.12.1 Informed Consent**

The first ethical issue was the "informed consent" which was ensured. Informed consent involves "explaining the nature of the research to the participants so that they are in a position to decide whether or not to take part" (Plowright, 2011). In this study, participation for participants was voluntarily and their personal information remained confidential.

### **3.12.2 Confidentiality and Anonymity**

The “respect of anonymity and confidentiality” was ensured. In the context of the research field, confidentiality means “respecting a participant’s right to be free from unauthorized release of information that the individual has disclosed in a relationship of trust and with the expectation that it will not be divulged to others without permission.” (Allen, 2017, p.2). On the other hand, anonymity means that “either the researcher does not collect identifying information of individual participants or the project cannot link individual responses with participants’ identities” (Allen, 2017, p.2). The data that collected from the respondents remain secured and was used only for this study, without uncovering their identities.

### **3.12.3 Respect of Privacy**

In the context of the research field, privacy means to be free from unauthorized intrusion or release of personal information (Allen, 2017, p.2). Also, “the respect of privacy” is of great significance and the researcher protected the personal information that the participants do not want to be published and respect their views. Moreover, their participation was voluntary and if they changed their minds and did not want to participate anymore, they are free to leave the study without any explanations. Beneficence was also taken into consideration in this research. The researcher asked the participants if they are willing to let themselves be recorded in this study and assured them that the recording was only used for this research.



#### **3.12.4 Plagiarism**

Finally, all sources of data consulted for both primary and secondary data was duly acknowledged. The secondary sources of information in printed books, internet sources, electronic databases related to the topics was acknowledged.

## CHAPTER FOUR

### ANALYSIS AND PRESENTATION OF FINDINGS

#### 4.1 Introduction

This chapter presents the analysis of data from both respondents and participants of the study. Data obtained from the field through the use of questionnaire and interview were analysed quantitatively and qualitatively. The findings of the study were presented in two parts, namely: quantitative analysis and qualitative analysis.

#### 4.2 Quantitative Analysis and Results

The first part of the analysis is focused on the data collected from Level 400 students through the use of a questionnaire. The data and analysis were presented in graphs and tables showing frequencies and percentages. The Likert scale was used ranging from strongly agree, through agree, neutral, disagree to strongly disagree. The analysis was presented under the following sub-headings:

- i. Demographic Information of Respondents
- ii. Security threats
- iii. User awareness of security
- iv. Collection security measures in academic libraries

##### 4.2.1 Response Rate of Institutions

The response rate shows the number of level 400 students that voluntarily engaged in the study and responded to the questionnaire. Out of the 297 copies of the questionnaire administered, 248 were completed and returned. It can be established that the study had a

very high response rate of 83.5%. The table below shows the break down according to the universities.

**Table 4.1: Response Rate**

<b>Private Universities</b>	<b>Questionnaire administered</b>	<b>Questionnaire completed and returned</b>	<b>Response rate</b>
Valley View	138	109	80%
Ghana Communication Technology	159	139	87.4%
<b>Total</b>	<b>297</b>	<b>248</b>	<b>83.5%</b>

#### **4.2.2 Demographic Information**

The demographic characteristics describe information about respondents. According to Salkind (2010), demographics refer to “particular characteristics of a population” (p.2). Demographic information is important because “it provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population for generalization purposes” (Salkind, 2010, p.2). Demographic questions, therefore, allow researchers to gain background information from the respondents as well as allowing researchers to describe their respondents and analyze their data (Allen, 2017).

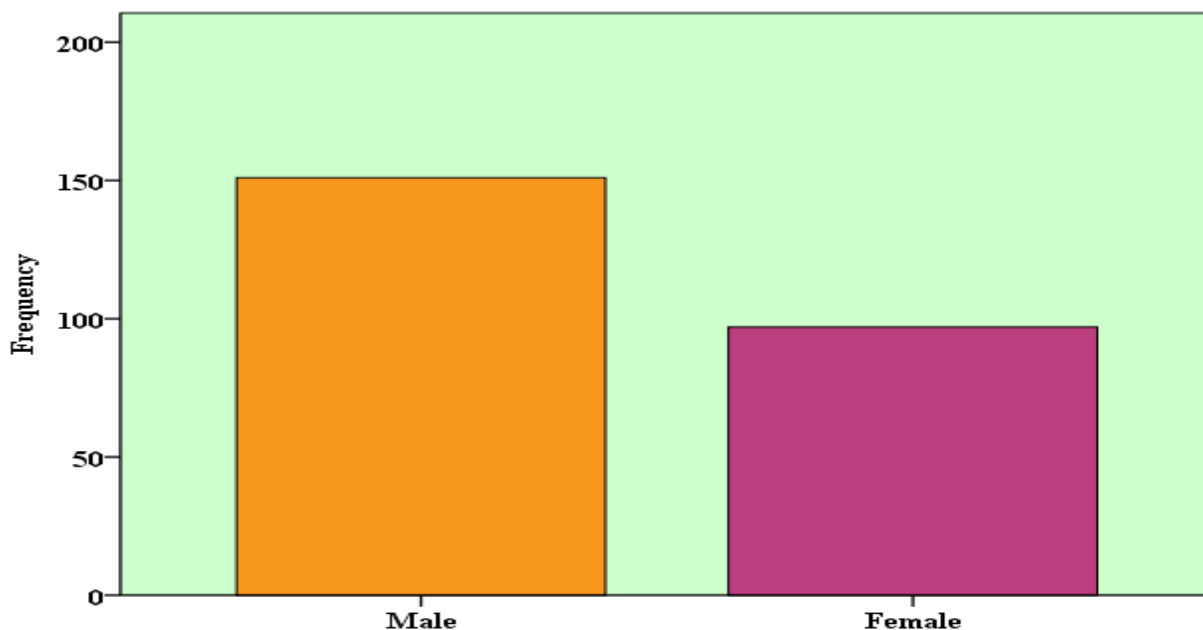
According to Maidabino and Zainab (2011), “demographics are features of the house model which are expected to support the implementation of collection security management”. Therefore, demographic information contains the statistical data collected in regards to

gender, age and programme of respondents. Descriptive and inferential statistics were used to explore the demographic information.

#### **4.2.2.1 Gender of Respondents**

Gender refers to the social relations between male and female in the form of a categorical variable. The Gender, Sex and Health Research Guide describes gender as “socially constructed roles, relationships, behaviours, relative power, and other traits that societies ascribe to women and men” (CIHR, 2010, para. 2). Gender is one of the demographics that are “expected to support the implementation of collection management” (Maidabino & Zainab, 2011). Respondents were asked to indicate their gender. This is because earlier studies have shown that gender influences the patronage of electronic resources (Acheampong, 2016), in this regard, gender influences the use of collection and security threats in the library. Respondents from both Valley View and Ghana Communication Technology Universities were asked to indicate their gender. Their responses are represented in the bar graph in Figure 4.1.

**Figure 4.1: Gender of respondent**



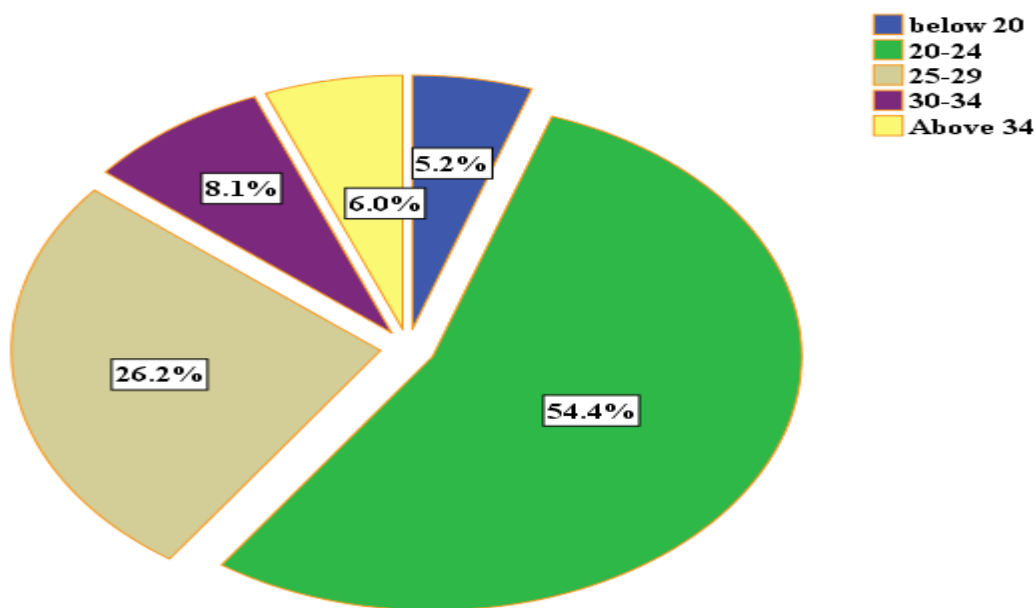
*Source: Field data, 2020*

As can be seen in Figure 4.1, males were 151, representing 60.9% while females were 97, representing 39.1%. This suggests that more males from both Valley View and Ghana Communication Technology Universities engaged in the study than females.

#### **4.2.2.2 Age of Respondents**

Age is a quantitative variable that determines the life of a person from birth to the present. Age is important to the study as earlier studies have shown that it enables the researcher to find out respondents age patterns and their level of maturity (Gyesi, 2019). As such, respondents were asked to indicate their ages. The respondents were given different age ranges to select from. This enabled the researcher to find out whether age influences collection security of libraries. The responses have been depicted in Figure 4.2.

**Figure 4.2: Age distribution of respondents**



*Source: Field data, 2020*

From the age distribution (Figure 4.2) of the respondents, it can be seen that 135 (54.4%) constituting the majority of the respondents were within the age range of 20-24, followed by the age range of 25-29 representing 65 (26.2%) and 20 (8.1%) were in the ranges of 30-34 while 15 (6.0%) and 13 (5.2%) were above 34 and below 20 respectively. This implies that majority of the respondents from both Valley View and Ghana Communication Technology Universities who participated in the study fell within the age range of 20-24.

#### **4.2.2.3 Programme of Respondents**

A programme of study is defined as any combination of courses and/or requirements leading to a degree or certificate ([https://sites.tufts.edu/sisproject/isis\\_glossary/](https://sites.tufts.edu/sisproject/isis_glossary/)). Programme of study is relevant to the study because it enables the researcher to know the various courses pursued by the respondents and the universities at large as well as knowing majority of respondents who are likely to use the library collection to aid in their academic excellence. With this in

mind, respondents were required to indicate their programmes of study. The Valley View and Ghana Communication Technology Universities offer many programmes for undergraduate students. Table 4.2 below indicates the breakdown of programmes being pursued by respondents.

**Table 4.2: Programme of respondents**

<b>Programme</b>	<b>Frequency</b>	<b>Percentage</b>
Business	180	72.7
Theological Studies	29	11.7
Information Technology	15	6.0
Computer Science	8	3.2
Education	5	2.0
Development Studies	4	1.6
Nursing	4	1.6
Engineering	3	1.2
<b>Total</b>	<b>248</b>	<b>100.0</b>

*Source: Field data, 2020*

Table 4.2 indicates that majority of the respondents were offering Business programmes 180 (72.7%), followed by Theological Studies 29 (11.7%), Information Technology 15 (6.0%), Computer Science 8 (3.2%), Education 5 (2.0%), Development Studies and Nursing 4 (1.6%) and Engineering 3 (1.2%). The findings indicate that majority of the respondents were in the

Business School offering courses such as management, marketing, banking and finance, procurement and logistics, accounting and Human Resource Management (HRM).

#### 4.2.3 Security Threats of Users

Security threats deal with people or events that can result in physical harm to the library resources. According to Jouini, Rabai, and Aissa (2014), knowledge of security threats is important to prevent attacks by selecting appropriate countermeasures. As such, this section sought to find out the security problems and causes of insecurity in the two universities.

##### 4.2.3.1 Security Problem

Academic libraries are faced with a series of challenges both internally and externally. Security problems are therefore of great concern to academic libraries irrespective of their collection, whether print, non-print or electronic form. Respondents were asked to indicate whether security was a problem in the library or not. Table 4.3 gives details of the responses.

**Table 4.3: The Security Problem**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	106	42.7
No	83	33.5
Sometimes	59	23.8
<b>Total</b>	<b>248</b>	<b>100.0</b>

*Source: Field data, 2020*



As shown in Table 4.3, majority of the respondents, totalling 106 (42.7%) indicated that security was a problem in the library, followed by 83 (33.5%) who indicated that they did not have security problems in the library. The remaining 59 (23.8%) indicated that they sometimes faced a problem with security in the library. The results indicate that security was a challenge in the library. In this regard, security must be of concern to the two libraries to protect their collections.

#### **4.2.3.2 Causes of Collection Insecurity**

Library resources are supposed to be safe. Collection security implies “the need for libraries to provide, maintain and secure their collections to ensure longevity, accessibility and effective provision of services to users.” (Urhiewhu, Emojoorho, & Omah, 2018, p. 2). Insecurity causes a lot of threats for the library and as such, libraries need to establish acceptable levels of collection security implementation. The research sought to find out the number of respondents who indicated the causes of collection security (“yes”) and those who did not (“no”). The respondents were therefore asked to indicate the causes of collection insecurity in the two university libraries. The responses are represented in Table 4.4.

**Table 4.4: Causes of collection insecurity**

Responses	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Limited/insufficient library collection for users	115	46.4	133	53.6
Selfish interest	84	33.9	164	66.1
Lack of proper orientation to users on the use of the library collection	126	50.8	122	49.2
Ignorance	109	44.0	139	56.0
Lack of awareness of rules and regulations	133	53.6	115	46.4
Lack of adequate punishment to serve as a deterrent to others	106	42.7	142	57.3
Other	15	6.0	233	94.0

*Source: Field data, 2020*

Table 4.4 revealed that 133 (53.6%) respondents indicated lack of awareness of rules and regulations as a major cause, while 126 (50.8%) indicated the lack of proper orientation for users on the use of the library collection were the major causes of insecurity in the libraries. Also, 115 (46.4%) of the respondents indicated insufficient library collection for users, 109 (44.0%) of the respondents indicated ignorance and 106 (42.7%) of the respondents indicated lack of adequate punishment to serve as a deterrent to others were some of the causes of library insecurity. The least causes of library insecurity indicated by 84 (33.9%) of the respondents were self-interest and 15 (6.0%) of the respondents indicated others. The findings indicate that majority of insecurity in both Valley View and Ghana Communication Technology University libraries are as a result of awareness of rules and regulations as well as lack of inadequate orientation for users.

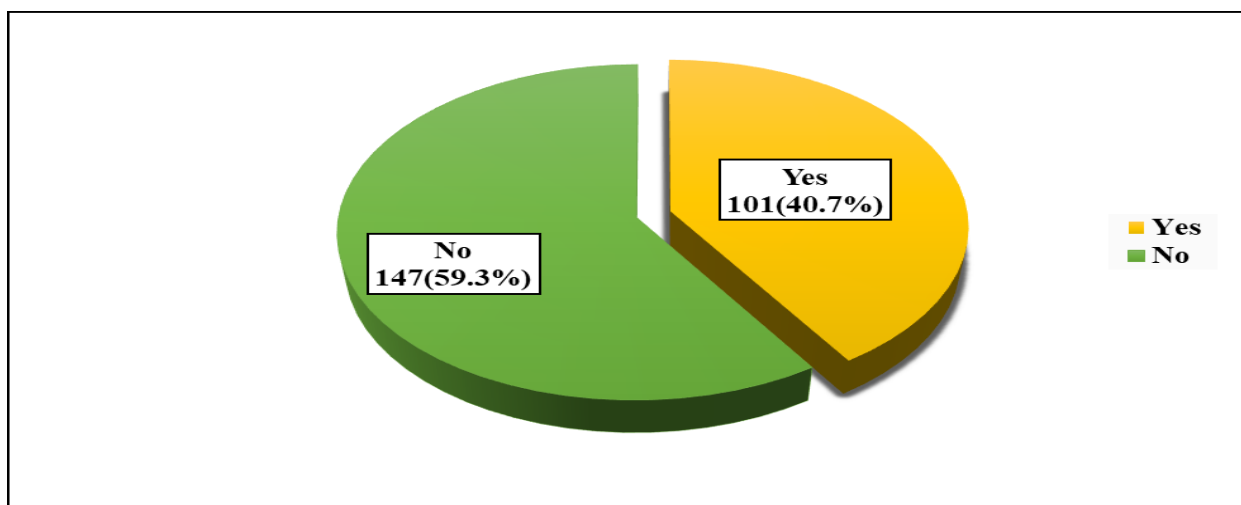
#### 4.2.4 User Awareness of Security

Awareness plays a critical role in educating users about security in the library. This means awareness created in any form secure the library collection against unauthorized access. As a result, the researcher sought to find out the level of awareness of security, awareness of library rules and regulations, familiarity with library regulations, library orientation, library guides and user awareness of library security threats.

##### 4.2.4.1 Awareness of Security

Security awareness is the “knowledge and attitude members of an organization possess regarding the protection of the physical, and especially informational, assets of that organization” (Vacca, 2014, p.19). Security awareness is one of the “information security management practices for risk management which are used to minimize information threats and attacks by identifying, measuring, and controlling.” (Hernandez, 2013 as cited in Shava & Gamundani, 2014, p.1230). Awareness is important because it helps the library to focus its attention on security. As such, respondents were asked whether they were aware or not of security measures put in place in the libraries. The responses are represented in Figure 4.3.

**Figure 4.3: Awareness of Security**



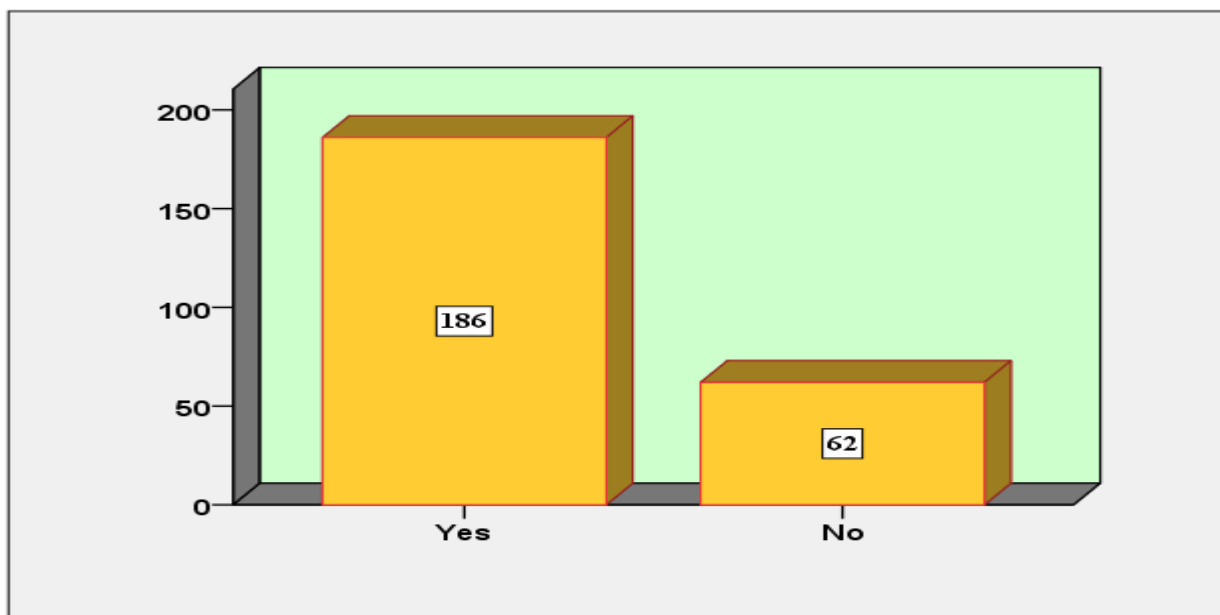
Source: Field data, 2020

From Figure 4.3, it can be seen that 147 (59.3%) constituting the majority of the respondents chose “No” while 101 (40.7%) of the respondents said “Yes”. It can be deduced from the findings that the majority of the respondents were not aware of security measures put in place in the library.

#### **4.2.4.2 Awareness of Library Rules and Regulations**

Library rules and regulations are to “ensure that all who use the library obtain maximum benefit from its facilities and it also provides legitimacy for punishing the offenders” (Owolabi, Idowu, & Aliu, 2015, p.2). The library rules and regulations are important to “ensure that all those who use the library obtain maximum benefit from its facilities and it also provides legitimacy for punishing the offenders” (Owolabi, Idowu, & Aliu, 2015). The respondents were therefore asked about their awareness of the rules and regulations relating to their libraries. The responses are captured in Figure 4.4.

**Figure 4.4: Awareness of Library Rules and Regulations**



*Source: Field data, 2020*

It is apparent from Figure 4.4 that 186 (75%) of the respondents acknowledged that they were aware of the library rules and regulations whilst 62 (25%) responded in the negative. The results suggest that students were aware of the rules and regulations put in place by the libraries concerning security.

#### **4.2.4.3 Familiarity with Library Regulations**

According to Ameyaw (2018), library patrons need to be familiar with rules and regulations to keep themselves away from violating them. As such, the study puts forward “yes” for those who are familiar with library regulations and “no” for otherwise. The responses are shown in Table 4.5.

**Table 4.5: Familiarity with Library Regulations**

Responses	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Patrons must be registered in the library	72	29.0	176	71.0
Reference books, journals, and magazines are only for consultation within the library and are not allowed to be taken out of the library premises	170	68.5	78	31.5
Borrowed books are non-transferable and a borrower shall remain responsible for material issued to him or her until it is returned	153	61.7	95	38.3
No personal belongings are allowed in the reading area	107	43.1	141	56.9
Shelving of library materials are not allowed by patrons	54	21.8	194	78.2
Consulted books are to be left on the reading table	99	39.9	149	60.1
Using computers for unauthorised purposes or non-academic related activities	87	35.1	161	64.9
Books should be handled with care. Marking on the books, tearing pages, etc may lead to the initiation of severe disciplinary action on the member	152	61.3	96	38.7
Return of books are mandatory before the due date	153	61.7	95	38.3
Bringing unauthorized persons to the library or computer lab. is not allowed	76	30.6	172	69.4
Other	7	2.8	241	97.2

*Source: Field data, 2020*

As can be seen in Table 4.5, out of the 248 respondents, 170, representing 68.5% indicated that “reference books, journals, and magazines are only for consultation within the library and are not allowed to be taken out of the library premises” was the library rules they are

familiar with. Another, 153 (61.7%) indicated that “borrowed books are non-transferable and a borrower shall remain responsible for material issued to him or her until it is returned”. Additionally, 153 (61.7%) of the respondents indicated that return of books is mandatory before the due date and books should be handled with care and 152 (61.3%) of the respondents indicated that marking on the books, tearing pages, etc may lead to the initiation of severe disciplinary action on the member.

Also, other library regulations were; 99 (39.9%) of the respondents indicated that “consulted books are to be left on the reading table”, 87 (35.1%) indicated that using computers for unauthorised purposes or non-academic related activities are not allowed. Subsequently, 76 (30.6%) of the respondents indicated that bringing unauthorized persons to the library or computer laboratory is not allowed and 72 (29.0%) indicated that patrons must be registered in the library. Finally, 54 (21.8) of the respondents indicated that shelving of library materials are not allowed by patrons and 7 (2.8%) of the other respondents were the least library rules that they were familiar with.

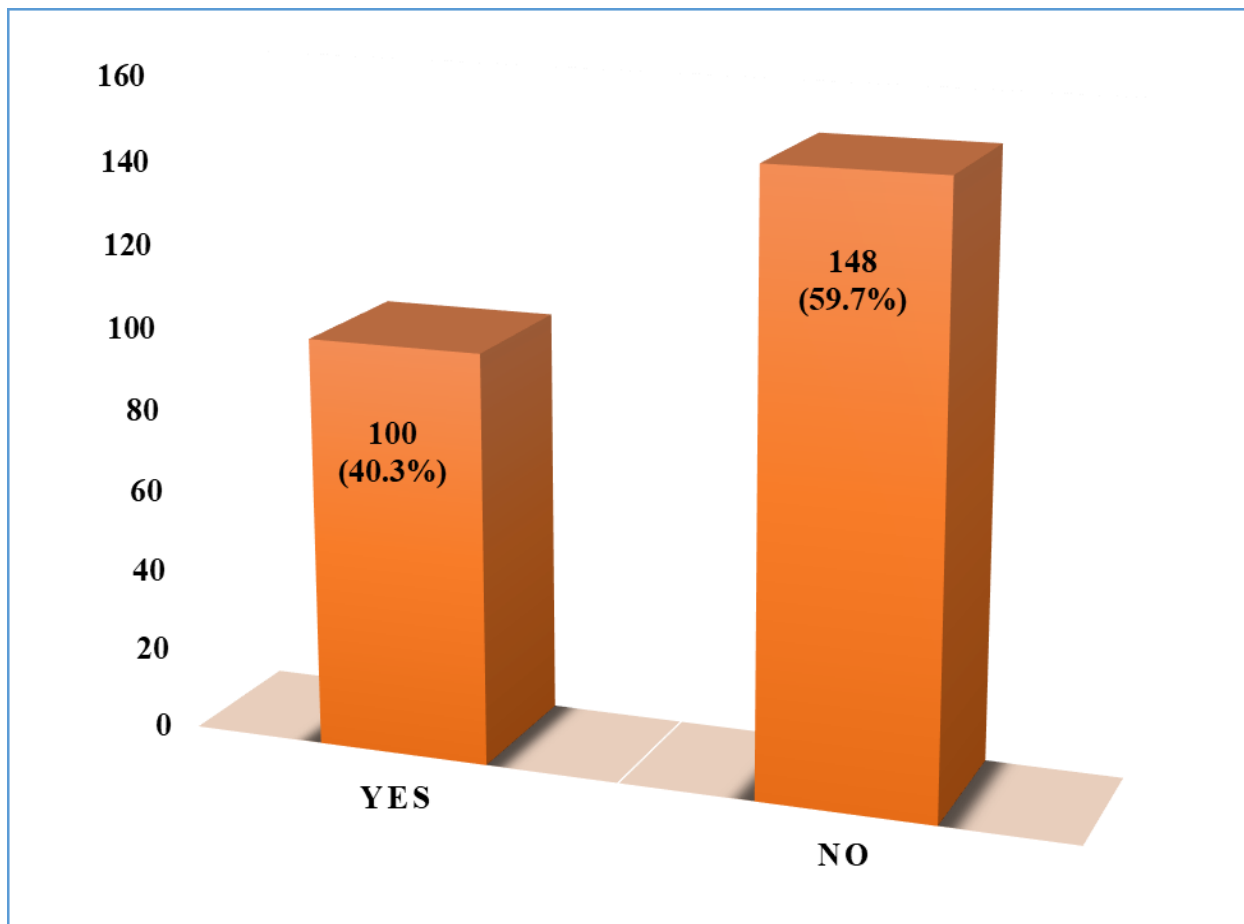
The findings showed that high percentage of respondents were familiar with “reference books, journals, and magazines were only for consultation within the library and are not allowed to be taken out of the library premises” with least being shelving of library materials are not allowed by patrons among others.

#### **4.2.4.4 Library Orientation**

Ashaver (2012) stated that library orientation enables students to familiarize themselves with all the activities and operations of a library including rules and regulations. Therefore, library orientation programmes are “designed to introduce students to a library’s wealth of resources

and as well strengthen their research skills and utilization” (Eke, Opara, Njoku, & Okoye, 2018). With this in mind, respondents were asked to indicate whether they had gone through any library orientation and Figure 4.5 captures their responses.

**Figure 4.5: Library Orientation**



*Source: Field data, 2020*

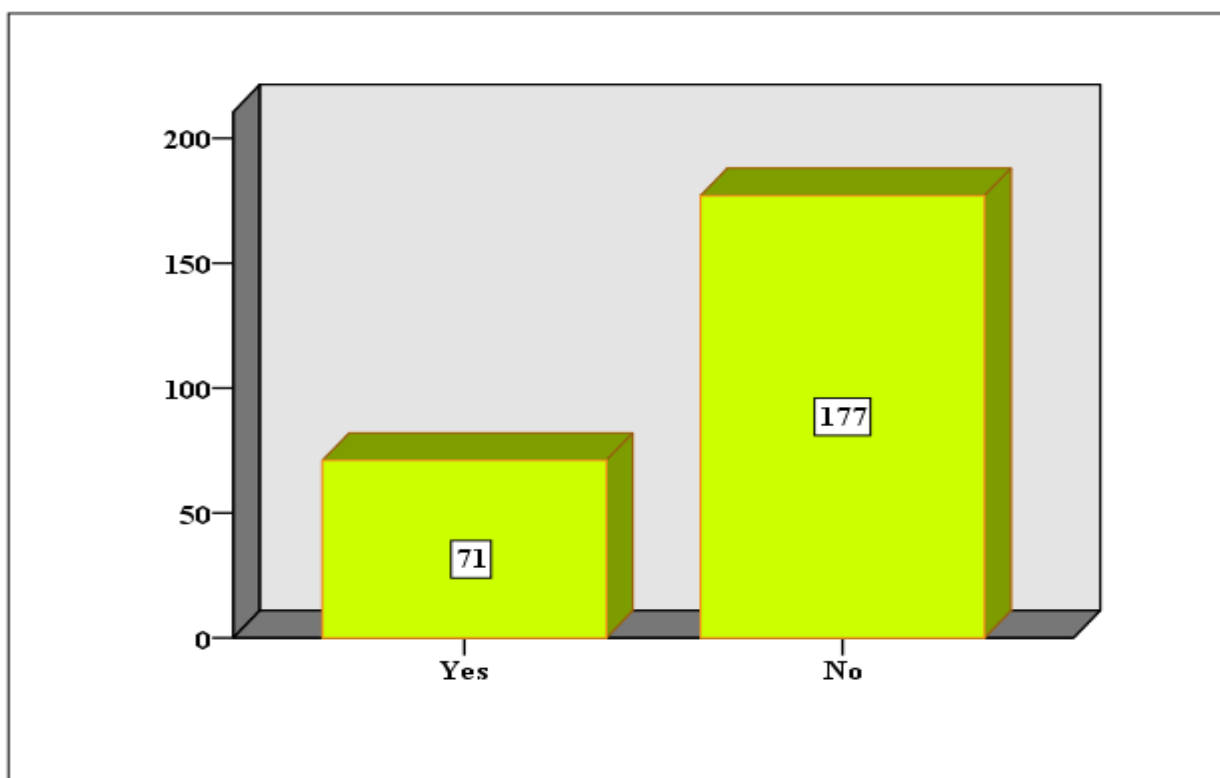
It can be seen from Figure 4.5 that 148 (59.7%), constituting the majority has not been taken through the library orientation, whilst 100, representing 40.3% had gone through library orientation. The results suggest that majority of the respondents did not go through library orientation to get themselves acquainted with the dynamics of the collection security.



#### 4.2.4.5 Library Guide

A library guide refers to a document given to users to get them acquainted with the rules and regulations and to abide by them. With this in mind, respondents were asked whether or not they were given a library guide which contained rules and regulations.

**Figure 4.6: Library Guide**



*Source: Field data, 2020*

From Figure 4.6, majority of the respondents, 177 (71.4%) said they were not given library guides which contained library rules and regulations, whereas 71 (28.6%) of the respondents indicated that they were given library guides which contained library rules and regulations. The findings clearly show that majority of the users did not receive any guidance from the library concerning the library rules and regulations.

#### 4.2.4.6 User Awareness of Library Security Threats

Awareness of library security threat is important to know the media that are used to create awareness as well as the effectiveness of those media. The respondents indicated the awareness of library security in Table 4.6.

**Table 4.6: User Awareness of Library Security Threats**

Item	No.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Manuals and leaflets about the library's collection security regulations, policy and procedures are posted in the library for users	248	29(11.7%)	39(15.7%)	64(25.8%)	64(25.8%)	52(21.0%)
Users are informed about the importance of collection security and informed to report security incidences	248	30(12.1%)	44(17.7%)	72(29.0%)	68(27.4%)	34(13.7%)
Signage both print and electronic informing about collection security and protection are easily seen by users	248	51(20.6%)	46(18.5%)	90(36.3%)	48(19.4%)	13(5.2%)
There are organised activities and training offered to increase user awareness	248	50(20.2%)	58(23.4%)	50(20.2%)	66(26.6%)	24(9.7%)
Users are given training to understand the content of the collection security policy and how to handle security issue incidences	248	53(21.4%)	55(22.2%)	60(24.2%)	56(22.6%)	24(9.7%)
Staff are trained to handle delinquent borrowers and users	248	31(12.5%)	30(12.1%)	79(31.9%)	81(32.7%)	27(10.9%)

*Source: Field data, 2020*

From Table 4.6, it can be seen that 64 (25.8%) of the respondents agreed and neutral that “manuals and leaflets about the library’s collection security regulations, policy and procedures are posted” in the library for users, 52 (21.0%) strongly agreed, 39 (15.7%) disagreed and 29 (11.7%) strongly disagreed. It can be deduced from their responses that the majority of the students agreed that manuals and leaflets about security were made available to users through pasting.

Concerning the statement, “Users are informed about the importance of collection security and informed to report security incidences”, 72 (29.0%) of the respondents neutral, 68 (27.4%) agreed, 44 (17.7%) disagreed, 34 (13.7%) strongly agreed and 30 (12.1%) strongly disagreed. It is an indication from the finding that “the majority of the respondents were aware of the importance” of collection security as well as how to report security incidences in the library.

Furthermore, the following statement was put to the respondents: “Signage, both print and electronic, informing about collection security and protection are easily seen by users”. In response, 90 (36.3%) were neutral, 51 (20.6%) strongly disagreed whilst 48 (19.4%) agreed. Nonetheless, 46 (18.5%) of the respondents disagreed, whilst 13 (5.2%) of them strongly agreed. It can be deduced from the findings that students were uncertain concerning threats informing them of signage for both print and electronic about collection security.

More so, it was shown that 66 (26.6%) of the respondents agreed to the view that “there are organised activities and training offered to increase user awareness”, whilst 58 (23.4%) were at variance. Nevertheless, 50 (20.2%) of the respondents strongly disagreed whilst another 50(20.0%) were neutral. A low number of 24 (9.7%) respondents strongly agreed. The

finding indicated that the libraries use a series of activities and training in creating awareness to users.

Concerning the statement, “Users are given the training to understand the content of the collection security policy and how to handle security issue incidences”, 60 (24.2%) of the respondents were neutral, 56 (22.6%) agreed, 55 (22.2%) disagreed, 53 (21.4%) strongly disagreed and 24 (9.7%) strongly agreed. It can be seen from the finding that students did not agree that training was made available to enable them to “understand the content of the collection security policy”.

Finally, a large number of 81 (32.7%) respondents agreed to the statement that “Staff are trained to handle delinquent borrowers and users”. However, 79 (31.9%) of the respondents neutral whilst 31 (12.5%) strongly disagreed. Additionally, 30 (12.1%) and 27 (10.9%) of the respondents disagreed and strongly agreed respectively. It can be deduced from the results that users were neutral as to whether staff were trained to handle delinquent borrowers.

#### **4.2.5 Collection Security Measures in Academic Libraries**

Collection security measures in an academic library are important to ensure the safety of library resources. These measures can be both human-induced and technological means. The respondents were asked to indicate measures put in place in the library to this effect. This question was asked to solicit information from respondents on the collection security measures in academic libraries. They were given the options to choose from “a five-point Likert scale” ranging from “strongly disagree” to “strongly agree.” Table 4.7 depicts their responses.

**Table 4.7: Collection Security Measures**

<b>Item</b>	<b>No.</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
Preventive measures are put in place in libraries to protect collections such as controlling staff to control areas	248	27(10.9%)	22(8.9%)	68(27.4%)	98(39.5%)	33(13.3%)
Users should be made aware of security in the library	248	25(10.1%)	20(8.1%)	41(16.5%)	74(29.8%)	88(35.5%)
All OPAC stations, PC/Internet workstations are protected from unauthorised access	248	20(8.1%)	33(13.3%)	74(29.8%)	73(29.4%)	48(19.4%)
Security systems are placed at entrance, exit and stack areas in the library to prevent unauthorised removal of collections	248	30(12.1%)	39(15.7%)	62(25.0%)	72(29.0%)	45(18.1%)
Use of staff or security personnel at the gate to monitor users	248	37(14.9%)	29(11.7%)	48(19.4%)	84(33.9%)	50(20.2%)
Security outreach programs/workshops, seminars, conferences for library users	248	25(10.1%)	40(16.1%)	57(23.0%)	79(31.9%)	47(19.0%)
Registration of all library users	248	36(14.5%)	35(14.1%)	55(22.2%)	72(29.0%)	50(20.2%)
Orientation of users on how to handle and use library collections	248	35(14.1%)	29(11.7%)	53(21.4%)	73(29.4%)	58(23.4%)
Checking users ID card before they are allowed access to the library	248	35(14.1%)	33(13.3%)	58(23.4%)	66(26.6%)	56(22.6%)
Periodic search of patrons and staff when exiting the library	248	32(12.9%)	44(17.7%)	62(25.0%)	68(27.4%)	42(16.9%)
Items that can cause damage to books are not allowed in the library	248	13(5.2%)	31(12.5%)	56(22.6%)	75(30.2%)	73(29.4%)

Fire alarms are placed in strategic areas of the library and these equipment are maintained and tested	248	22(8.9%)	33(13.3%)	50(20.2%)	76(30.6%)	67(27.0%)
Maintenance of all OPAC and Internet workstations are planned regularly	248	22(8.9%)	25(10.1%)	71(28.6%)	79(31.9%)	51(20.6%)
Password requirements are in place to access electronic resources	248	23(9.3%)	30(12.1%)	62(25.0%)	81(32.7%)	52(21.0%)
Collection security is given consideration when planning the layout of shelves, sitting and reading areas, placement of fire prevention equipment.	248	23(9.3%)	33(13.3%)	82(33.1%)	74(29.8%)	36(14.5%)
Periodic random checks are carried out on users and staff who enters or exit the library is carried out	248	34(13.7%)	35(14.1%)	78(31.5%)	70(28.2%)	31(12.5%)
Keeping library resources under lock and key	248	28(11.3%)	28(11.3%)	59(23.8%)	85(34.3%)	48(19.4%)
Using audit control software to keep track of all activities performed by users using computers	248	34(13.7%)	35(14.1%)	66(26.6%)	69(27.8%)	44(17.7%)
Physically securing computers to desks	248	27(10.9%)	34(13.7%)	71(28.6%)	79(31.9%)	37(14.9%)
Installing antivirus software and updating frequently to ensure the detection and prevention of computer viruses	248	23(9.3%)	32(12.9%)	54(21.8%)	77(31.0%)	62(25.0%)
Biometric devices at the entrance to prevent unauthorised user access to library/computer lab.	248	38(15.3%)	39(15.7%)	52(21.0%)	64(25.8%)	55(22.2%)
Using Uninterruptible Power Supply (UPS) to prevent information being lost when there is power fluctuation	248	19(7.7%)	30(12.1%)	63(25.4%)	70(28.2%)	66(26.6%)

Firewalls and intrusion detection systems are installed to hinder unauthorised user access to library systems and databases	248	27(10.9%)	31(12.5%)	59(23.8%)	77(31.0%)	54(21.8%)
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*Source: Field data, 2020*

From Table 4.7, it was revealed that 98 (39.5%) of the respondents agreed to the statement that “preventive measures are put in place in libraries to protect collections”. Additionally, 68 (27.4%) of them were undecided whilst 33 (13.3%) strongly agreed. Subsequently, 27 (10.9%) and 22 (8.9%) of the respondents strongly disagreed and disagreed respectively. Concerning the statement, “Users should be made aware of security in the library”, 88 (35.5%) large number of respondents strongly agreed whilst 74 (29.8%) agreed. Nevertheless, 41(16.5%) were uncertain, 25(10.1%) strongly disagreed whilst 20(8.1%) disagreed.

Also, it was found that 74 (29.8%) and 73 (29.4%) of the respondents were neutral and agreed respectively that “all OPAC stations, PC/Internet workstations are protected from unauthorised access through passwords and user IDs”. Besides, 48 (19.4%) strongly agreed, 33 (13.3%) disagreed whilst 20 (8.1%) of the respondents strongly disagreed.

Furthermore, 72 (29.0%) agreed that “security systems are placed at entrances, exits and stack areas in the libraries to prevent unauthorised removal of collections”. These security systems included “an electronic anti-theft system, visual cameras, smoke detection systems, CCTV, magnetic detection systems and the use of alarms”. However, 62 (25.0%) were neutral, 45 (18.1%) strongly agreed, 39 (15.7%) disagreed and 30 (12.1%) of the respondents strongly disagreed.

More so, it was found out that 84 (33.9%) respondents agreed to the statement "use of staff or security personnel at the gate to monitor users" whereas 50 (20.2%) of them strongly agreed. It was also found that 37 (14.9%) strongly disagreed, 29 (11.7%) disagreed and 48 (19.4%) were neutral.

In relation to the statement, "Security outreach programs/workshops, seminars, conferences for organized library users", 25 (10.1%) respondents strongly disagreed, 40 (16.1%) disagreed, 57 (23.0%) neutral, 79 (31.9%) agreed, 47 (19.0%), strongly agreed.

Subsequently, this statement was put to the respondents: "Registration of all library users". In response, 72 (29.0%) agreed, 55 (22.2%) were neutral, whilst 50 (20.2%) strongly agreed. On the other hand, 36 (14.5%) of the respondents strongly disagreed whilst 36 (14.5%) of them strongly disagreed.

Subsequently, it was found out that, 73 (29.4%) of the respondents agreed that the orientation of users as to how to handle and use library collections was undertaken. In addition, 58 (23.4%) strongly agreed, 53 (21.4%) were neutral, 35 (14.1%) strongly disagreed, whilst 29 (11.7%) of the respondents disagreed.

To the statement "Checking users ID cards before they are allowed access to the library", 35 (14.1%) strongly disagreed, 33 (13.3%) disagreed, 58 (23.4%) were neutral, 66 (26.6%) agreed, 56 (22.6%) of the respondents strongly agree. A sizeable number of 68 (27.4%) respondents agreed that there must be a periodic search of patrons and staff when exiting the library, 32 (12.9%) strongly disagreed, 44 (17.7%) disagreed, 62 (25.0%) were neutral and 42 (16.9%) strongly agreed.



Concerning report on the “Items that can cause damage to books are not allowed in the library”, majority of the respondents, totalling 75 (30.2%) agreed. In addition, 73 (29.4%) of the respondents strongly agree, 56 (22.6%) were neutral, 31 (12.5%) disagreed and 13 (5.2%) strongly disagreed. From the other responses, majority of the respondents numbering 76 (30.6%) agreed that “fire alarms are placed in strategic areas of the library and these equipment are maintained and tested” whilst 67 (27.0%) strongly agreed. In addition, 22 (8.9%) strongly disagreed, 33 (13.3%) disagreed and 50(20.2%) were neutral.

Concerning the statement “Maintenance of all OPAC and Internet workstations are planned regularly”, 79 (31.9%) agreed, 71 (28.6%) were neutral, 51 (20.6%) strongly agreed, 22 (8.9%) strongly disagreed and 25 (10.1%) disagreed. From another point of view, 81 (32.7%) respondents agreed that “password requirements are in place to access electronic resources” (ie. online databases, e-books, e-journals), 23 (9.3%) strongly disagreed, 30 (12.1%) disagreed, 62 (25.0%) were neutral whilst 52 (21.0%) strongly agreed.

Again, it can be realized from the finding that majority of the respondents numbering 74 (29.8%) agreed that “collection security is given consideration when planning the layout of shelves, sitting and reading areas”, as well as, “placement of fire prevention equipment”. On the opposing side, 23 (9.3%) respondents strongly disagreed, 33 (13.3%) disagreed, 82 (33.1%) were uncertain. However, 36 (14.5%) of the respondents strongly agreed. To top it up, 78 (31.5%) respondents neutral that “periodic random checks are carried out on users and staff who enter or exit the library (checking IDs and personal belongings)”, 34 (13.7%) strongly disagreed, 35 (14.1%) disagreed, 70 (28.2%) agreed and 31 (12.5%) strongly agreed.

Concerning the statement, “Keeping library resources under lock and key”, 85 (34.3%) of the respondents indicated agreement, 28 (11.3%) strongly disagreed whilst 28 (11.3%) disagreed. On the other hand, 59 (23.8%) were neutral and 48 (19.4%) strongly agreed. About the use of audit control software to keep track of all activities performed by users using computers, 66 (26.6%) of the respondents were neutral. In addition, 34 (13.7%) strongly disagreed, 35 (14.1%) disagreed, 69 (27.8%) agreed and 44 (17.7%) strongly agreed.

From Table 4.7, it can be seen that 79 (31.9%) agreed that they physically secured computers to desks, whilst 71 (28.6%) remained neutral. However, 37 (14.9%) strongly agreed, 34 (13.7%) disagreed and 27 (10.9%) strongly disagreed.

It is evident from the results that 77 (31.0%) of the respondents agreed to the installation of antivirus software and updating frequently to ensure the detection and prevention of computer viruses, 23 (9.3%) strongly disagreed, 32 (12.9%) disagreed, 54 (21.8%) neutral, 62 (25.0%) strongly agreed.

Also, majority of the respondents numbering 64 (25.8%) agreed that biometric devices must be at the entrance to prevent unauthorised user access to library/computer laboratory. On the converse, 38 (15.3%) strongly disagreed, 39 (15.7%) disagreed, 52 (21.0%) were neutral. Also, 55 (22.2%) respondents strongly agreed. Concerning the issue of “Using Uninterruptible Power Supply (UPS) to prevent information being lost when there is power fluctuation”, 70 (28.2%) respondents agreed, 19 (7.7%) strongly disagreed, 30 (12.1%) disagreed, 63 (25.4%) were neutral and 66 (26.6%), strongly agreed.

Lastly, it is evident from the Table 4.7 that an encouraging number of 77 (31.0%) agreed that “firewalls and intrusion detection systems are installed to hinder unauthorised user access to library systems and databases”, 27 (10.9%) strongly disagreed, 31 (12.5%) disagreed, 59 (23.8%) were neutral and 54 (21.8%) strongly agreed.

It is evident from the results that users are aware of human and technological measures put in place by both Valley View and Ghana Communication Technology Universities even though the human measures are more used than the technological means. This can be deduced from the fact that a large number of respondents agreed to the collection security measures put in place.

### **4.3 Qualitative Analysis and Results**

#### **4.3.1 Introduction**

Questionnaire alone cannot give in-depth details of the threats relating to collection security in academic libraries. As such, the researcher interviewed staff to complement the views of the level 400 students in both Valley View and Ghana Communication Technology Universities. The main participants of the interview consisted of the library staff of the selected University and University College. There are three categories of library staff, namely: professionals, paraprofessionals and non-professionals. Professionals refer to library staff that have acquired the requisite knowledge and skills in librarianship and possess Masters of Arts, Masters of Philosophy or Doctor of Philosophy in Library and Information Science (LIS) and above. The paraprofessionals are those who possess a diploma or first degree in librarianship with requisite knowledge and skills to assist the librarians whilst non-professionals are those who do not have any certificate in librarianship but assist the librarian

or performs administrative services in the library. The library staff in the category of professionals, paraprofessionals and non-professionals were interviewed using an interview schedule.

#### 4.3.1.1 Response Rate of Library Staff

Eighteen (18) library staff were expected to be interviewed. However, thirteen (13) of them, representing 76.5% were interviewed and four (4) representing 23.5% were not interviewed due to their non-availability.

**Table 4.8: Response Rate of Library Staff**

<b>Universities</b>	<b>Expected staff to be interviewed</b>	<b>Actual staff interviewed</b>	<b>Response rate</b>
Valley View	11	8	72.7%
Ghana Communication Technology	7	5	71.4%
<b>Total</b>	<b>18</b>	<b>13</b>	<b>72.2%</b>

The library staff were audio-recorded and notes were taken concurrently. The researcher did everything possible to ensure anonymity and confidentiality with the analysis of the data by assigning codes to the first alphabet of their respective academic institutions to represent each participant's view. For example, V1, V2 for Valley View staff participant one (1) and two (2) and G1, G2 for Ghana Communication Technology University Staff participant one (1) and two (2).

### **4.3.2 Demographic Information of Participants**

The researcher collected the demographic information about the participants relating to their gender and years of experience in the library profession. Out of the thirteen library staff interviewed, 9 (69.2%) were males and 4 (30.8%) were females of both Valley View and Ghana Communication Technology University libraries.

Regarding the working experience of the library staff of both universities, it was deduced that all the four professionals had between 10 to 14 years working experience in their libraries with either MPhil or MA in Information Studies degrees. Additionally, the five paraprofessionals in both university libraries had between 2 to 10 years working experience with either Diploma or first-degree qualifications. Finally, the four non-professionals in both university libraries had 2 to 9 years working experience with either “Middle School Leaving Certificate” or “West African Senior School Certificate Examination (WASSCE)” certificate or without a certificate at all. The next part of the analysis was done according to the objectives of the study.

### **4.3.3 Security Threats**

To identify the precise security threats available in the selected university libraries, the researcher asks participants about specific areas in the library that were exposed to threats. The areas included types of collection security threats, library building, security personnel, stock arrangement, staff relationship with users, disasters, and location of the library. Also, the researcher sought to find out the causes of security challenges, tools for identifying collection security, library collection subject to security threats, and categories of users contributing to security threats.

#### 4.3.3.1 Security Threats of Staff

Respondents were asked whether there were security threats in the libraries. All the participants said yes. As a result, the researcher asked the respondents to indicate the types of collection security threats they have experienced in their respective libraries. The following were some of the responses from Valley View University:

*“...books are labelled in a way that can easily be identified but students manoeuvre their way to steal books” (V1)*

*“...I think there are instances where students steal computer mouse, books, laptops and computer memory” (V2)*

*“...stealing of library books” (V5)*

*“...most of the time, they steal books, laptops and computer memory” (V8)*

*“...stealing of items like bags and books” (V1)*

*“...most minor theft and mutilation of materials” (V4)*

*“...tearing library materials” (V7)*

On the other hand, the participants from the Ghana Communication Technology University indicated that:

*“...there is a threat with security so we issue tags to students to prevent insecurity. Students are required to issue the same tag before they take their bags” (G1)*

*“...stealing of laptops” (G2)*

*“...two years ago, three new dictionaries were acquired, later; two were nowhere to be found. So we thought they have been mishelved, not knowing that they were stolen” (G3)*

*“...I am the only one here till 2 pm. If I want to go and ease myself, then, the library staff must perform my role, which is not effective” (G4)*

*“...there are more theft threats. A bag was stolen from the library and later found in the male washroom. Also, there is mishelving of books by students to monopolize books” (G5).*

The responses have revealed that both libraries face collection security threats relating to the theft of books, laptops, dictionaries, bags as well as mutilation and mishelving of library materials.

Further, the researcher sought to find out from staff the collection security threats relating to the library buildings, security personnel, stock arrangement, staff relationship with users, disasters, and location of the libraries.

The participants from the Valley View University said:

*“...In terms of the library building, the security we have here is the fire extinguisher for fire and then we have an emergency exit” (V2)*

*“...stock arrangement is a security threat” (V3)*

*“...In relation to staff relationship, staff relationship with users is relative, negative staff attitude towards a student can cause them to do anything.*

*In relation to disaster, we are given training; let me say once or twice a year. Some on fire outbreak so I believe we are adequately prepared.” (V4)*

*“...In terms of the location of the library, all other offices are here, so sometimes, somebody or an employee from another office can come in. it is not a place where we are on our own, we are mixed up with other offices, so sometimes they come in whilst a user is requesting for something but because you are talking to them, you might end up telling the user to sit and wait.”(V6)*

*“...In terms of the stock arrangement, you can’t tell because the books are many on the shelves especially if it is a single book, it is difficult to tell if they are stolen  
In terms of disaster, we don’t allow water in the library, but we don’t have measures to prevent rainfall, but when it falls on the books, we take measures but it takes too long to recover them” (V7)*

On the other hand, Ghana Communication Technology University staff said:

*“...The last time, people from the fire service agency came to give us training on how to deal with a fire outbreak. We also have other training for staff but it is not schedule related.” (G3)*

*“...No, ever since I came to work in the library, I have not experienced any of these threats” (G2)*

It can be seen from the analysis that Valley View University had a problem with the location of the library staff, the library building had fire extinguishers and emergency exits with the doors locked. About disasters, the staff had been given training on fire outbreak and in terms of stock arrangement; it was difficult to tell when materials are stolen. Ghana Communication Technology University indicated that training had been given to staff by the fire service agency.

#### **4.3.3.2 Causes of Security Challenges**

Also, participants were asked to state some of the causes of security challenges.

Valley View University library staff participants indicated the following:

*“...As it is now, we don’t have CCTV camera to check so it is really a problem. Someone can just steal and if you are not conscious you will not see it. Yes, so you*



*have to always be on guard and you know that we are humans and sometimes we cannot always be active. We don't also have a machine to scan people when they are going out of the library” (V2)*

*“...Lack of security personnel and lack of monitoring” (V3)*

*“...Okay, when there was a shortage in the number of security men, we were experiencing many security challenges, but now, it has reduced and the setting up of the CCTV cameras is going to reduce it further” (V4)*

*“...I think security should be taken as a serious subject, because with just a human eye, somebody can outsmart you, as part of my daily patrol duty in the library, I went round only to see a computer mouse stolen and hard disk removed” (V6)*

On the other hand, Ghana Communication Technology Universities staff had these to say:

*“...when the library collections are not enough it can easily cause collection insecurity” (VI)*

*“...When there is lack of awareness of library rules and regulations” (G3)*

*“...Opening the library to outsiders (visitors) in the name of providing community service. You cannot trust all the visitors” (G5)*

It can be seen from the analysis that Valley View University library staff indicated security challenges as lack of CCTV, inadequate security personnel and scanners that beeps at the entrance of the library should a patron carry any of the library's collection. In the case of Ghana Communication Technology University, they indicated that insufficient library collection, lack of awareness of library rules and regulations and opening library to outsiders cause collection insecurity.

#### 4.3.3.3 Identifying Security Threats in the Library

The researcher further asked the participants to comment on the tools they used in identifying security threats to the library collection. These were the responses from the staff of Valley View University.

*“...We have measures as at now; we are thinking of installing CCTV cameras because we don't have them” (V2)*

*“...we don't have CCTV camera, so we just watch over the library materials” (V3)*

*“...there are couples of steps we plan to implement; one of them is setting up of the CCTV cameras, which the administrators have agreed to install in the library. Now, we have security personnel at the post and also once a while we walk around the library to monitor what is happening” (V4)*

*“...We hand them over to the librarian and disciplinary committee” (V5)*

*“...Not much, we check users when they are going out of the library with a book to see if it has been properly checked” (V6)*

*“...We check theft through shelf reading and in case of computers, we go around to check whether there has been a stolen device, example mouse” (V7)*

Ghana Communication Technology University staff, on the other hand, indicated the following responses:

*“...We check if the number of books student borrowed correspond to what they are required by law to borrow” (G1)*

*“...We use CCTV cameras but it is not working now, so we use the security personnel stationed in the library” (G2)*

*“...We use weeding to determine the number of books stolen by students” (G4)*

*“...We have security checkpoint, we use observation and camera but I don't know its effectiveness” (G6)*

It is evident that both Valley View and Ghana Communication Technology Universities identifies security breaches in the library through checking, going round to monitor users in the library and weeding.

#### **4.3.3.4 Library Collection most Prone to Security Threats**

The two libraries were further asked to indicate which of their library collections was more prone to security threats. The participants from the Valley View University had the following to say:

*“...I think it is the reference books because those books are not common, so we hardly give them out. Therefore, if users get the opportunity they steal them” (V2)*

*“...All categories” (V3)*

*“...The main stock and mostly our fiction collection” (V4)*

*“...It is the reference book since users can't borrow them” (V6)*

*“...I think is the computers because every day we have threats with the IT equipment missing” (V7)*

*“...More emphasis is on theft relating to laptops” (V8)*

On the other hand, Ghana Communication Technology University staff indicated the following responses:

*“...Students have been stealing books and laptops” (G1)*

*“...Past questions; sometimes when they take the past questions they remove the question sheet without bringing the past questions back” (G2)*

*“...The Information Technology (IT) books are prone to theft” (G3)*

*“...Laptops are often stolen and sometimes parts of the computer” (G5)*

It can be deduced from the responses that in Valley View University, reference books, fiction collections are library collection that was mostly subjected to security threats. On the other hand, Ghana Communication Technology University indicated IT books and past questions.

#### **4.3.3.5 Categories of users contributing more to Security Breaches**

The researcher probed further by asking the participants to indicate the category of users that contribute more to security threats in the library, how the offenders are handled, as well as, the organs responsible for punishing the offenders. The participants from Valley View University said these:

*“...Yes, we have measures. Sometimes, we give books to people and they don't return them, so since we have their records, we can trace them. At times, we report them to management to suspend or sack you” (V2)*

*“...Actually myself, I have not caught anyone before but we use to hear it” (V3)*

*“...We don't have such problem but mostly it is the continuing and sandwich students. It is mostly sandwich students due to their time constraints.*

*Yeah, mostly we handle them in-house and if it is theft we handle them according to what our policy says. You need to replace the material or sometimes we handle them over to the authorities but mostly we work with what the policy says” (V4)*

*“...We handle them over to the Disciplinary Committee and the librarian” (V5)*

*“...It is the regular students. So when they are caught with our books, you are required to pay three times the amount.*

*We have a situation whereby if you owe the library, we block your iSchool account, so you can't check your result, register or do anything” (V7)*

On the other hand, Ghana Communication Technology University staff said:

*“...If it is beyond our control, we hand them over to the authorities. There is also a committee that punishes offenders, namely: head of security and other school authorities” (G1)*

*“...Undergraduate students, normally, we report them to head of security and they handle them” (G2)*

*“...Level 200 to 400 have more experience with the system and therefore engage in theft activities” (G3)*

*“...Level 400 and some outsiders. When the issue is beyond us, we deal with them at the police station” (G5)*

It can be inferred from the analysis that the two libraries had various tools for handling offenders. They all indicated that undergraduate students were those who engaged in security breaches. Valley View University indicated that offenders were dealt with according to the library policy which allowed them to pay for the materials or dealt with by authorities. But Ghana Communication Technology Universities indicated that they handed them over to the authorities such as the head of security or sends them to the police station.

#### **4.3.4 Staff Awareness of Security**

This objective sought to find out about staff awareness of collection security in the selected academic libraries. Questions such as whether they had had training or workshops on collection security, aware of security measures being put in place, awareness of challenges and obstacles were raised.

#### 4.3.4.1 Training on Library Security

Participants were asked to indicate if they had had any training or workshop on library security since they were employed. Majority of the participants indicated that they have not had any training. Besides, those who had had training were asked to indicate the number of times and explain the content of the training. The participants from Valley View University revealed the following:

*“...Mostly, once a year on security and fire threats. Staff from the Ghana Fire service came to replace our fire extinguisher and gave us training on how to deal with fire outbreak” (V4)*

*“...Ever since I was employed here no” (V2)*

*“...No” (V1, V3, V5)*

*“...No, we haven't been to any training before” (V6)*

*“No there has never been any staff training on security so far” (V7)*

*“No training or workshop” (V8)*

In the case of Ghana Communication Technology University library staff, they said:

*“...Yes, the last time fire service gave us training on how to deal with fire outbreak” (G2)*

*“...Training on library security once a year” (G2)*

It can be deduced that Valley View University library staff have not received any form of training except training on how to deal with a fire outbreak. Similarly, Ghana Communication Technology University participants had been given training on how to deal with fire outbreaks.

#### 4.3.5 Collection Security Policy

Collection security policy is relevant to the study because earlier studies have indicated that policy serves as a blueprint that is used as a guiding principle towards the achievement of a set goal (Yeboah, Kwafua, & Amoah, 2017). The researcher intended to find out from the staff of both university libraries if they had a collection security policy, and why they adopted the nature of the policies. Below were some of the responses from Valley View University:

*“...The library has a policy and it is part of the training that guides us but sometimes we use common sense. Example, a security man has been given a gun and in the process of performing his duties, He gets attacked by an intruder. It is incumbent on him to decide whether to shoot or not” (V1)*

*“...Yes, we have a collection security policy and it is in both soft copy and printed format.” (V2)*

*“...Yes, very active. It entails the checking in and checking out, making sure nobody brings in materials” (V3)*

*“...it is documented and it is functional because we are basically operating according to the policy. For example; how the library operates, the time we open and close the library, the charges incurred if a patron misplaces a book, the number of times we are supposed to weed our collections in a year, etc.” (V6)*

*“...Yes, we have, example; turn off the phone in the library, dress code among others.” (V5)*

*“...Yes, anything related to weeding in the policy we do that in consultation with the head of the library, the last time we did library weeding was two years ago” (V7)*

*“...We have a library collection policy through which basic law that guides the library is taken from. Example, our dress code, no food, water and conversation in the library” (V8)*

On the other hand, the following were responses from Ghana Communication Technology University staff:

*“...We have a policy and this policy contains rules and regulations that guide the operations of the library” (G1)*

*“...Yes, there is a policy, this policy has been printed and it is functional, that is, why I said when you come to the library and you are leaving the security men will take your bag and search whether you do have our books in your bag.” (G2)*

*“...I can admit the library has a policy, it is functional though, but it is not anything we strictly adhere to. The policy is in a soft copy” (G3)*

*“...There is a policy and it is functional. It is in soft and hard copy. The policy is being revised to meet modern standards.” (G5)*

It is evident from the private universities that Valley View University had a functional security policy that has been documented, strictly adhered to and helped in performing the tasks in the library. In the case of Ghana Communication Technology University, however, there was a security policy but it was not strictly adhered to.

#### **4.3.6 Collection Security Measures**

The researcher sought to find out the measures used to reduce collection insecurity in academic libraries. Questions were asked as to whether these Universities had manual security or electronic security system and measures put in place to retrieve damaged or lost books or overdue items from students and staff who are no longer in the institutions.



#### 4.3.6.1 Staff Collection Security Measures

To complement the view of students, staff were also asked to indicate the measures used to reduce collection insecurity in the academic libraries. Questions were asked on manual security and electronic security system.

Valley View University College participants indicated the following:

*“Manually, we have security men who are put in charge.*

*Electronically, sometimes we have the data of the students so when it happens like that we just check and make sure it is very authentic before we transfer it into their school or their departments.” (V3)*

*“...Manually, we have the security men and the iSchool which is used to enter the details, so if you are owing you are blocked” (V6)*

*“...so we have the names of borrowers and should a borrower not return a book, you will have to pay for the book, and with those who have completed school, they come for clearance before they graduate, so if you come for the clearance and your name happens to be in the list, then, you will pay three times of the price of the book.” (V3)*

*“...Yes, we have a backup and it is controlled by our Information Technology Studies (ITS) department so in case we lose some documents they replace it and most of the e-resources can be found on the university repository. Currently, most of the e-resources are being loaded on our e-platform. Formally, we had them in hard copy format so they have to come for it in the library, but we are uploading them on the e-platform so that they can access it everywhere they are.” (V2)*

*“Manually: we go through our records at the end of the semester to check borrowed books that have not been returned.*

*Electronically: we are now moving towards that” (V7)*

*“...observation is the ultimate, Additionally, security men walk around, staff walk around and then we have something called Wednesday chapel seminars, most departments are given the chance to educate students and faculty and staff about the proper way of doing things. We also get the opportunity to educate our students on threats such as theft and others once every year.” (V4)*

On the other hand, the following were the responses of the Ghana Communication Technology University:

*“...yes, we have something called weeding; we the librarians go through the books and check the ones that have been damaged and arranged for them to be conveyed to the Balme library for binding to preserve the book.” (G3)*

*“...we don't have tools, that's why we sometimes patrol or walk through the library to see what is going on or how students are seated in the library.” (G1)*

*“...we have CCTV cameras but they are not working now so we use the security men who are stationed in the library. Just recently, someone lost his laptop and complained that if the CCTVs were working, at least the person who stole the laptop would have been identified.” (G4)*

#### **4.3.6.2 Measures used to Retrieve Lost Items**

Participants were asked to indicate the measures put in place to retrieve damaged or lost books or overdue items from students and staff who are no longer in the institutions. Valley View University had these to say:

*“...Yes, all the measures used to retrieve lost items are in our policy.” (V4)*

*“...What we do is if the person has completed school before he or she comes to collect his certificate, you have to come for clearance in the library. We clear you by checking whether you owe library materials or not.*

*When you are a continuing student and at the end of the semester you have not returned the borrowed book or books, we block your iSchool account to prevent you from writing your exams. The person who has been doing that is not available and as such; we have to go to the IT department for them to do that for us” (V7)*

On the other hand, Ghana Communication Technology University staff responded as follows:

*“...we collect our materials from students and staff before they leave” (V1)*

*“...For students, we have their names so if they borrow books and they don't return it, you will pay for the books before you graduate. This is because the students come for clearance from every department including the library, so when they come to the library anyone who owes the library books is required to pay three times the amount of the purchase of the book.”*

*Concerning staff, lecturers come to the library to borrow books, even last week one of them came to borrow books but was asked to go through the same procedure, thus, we take their details but as for them is not strict like the students. When they don't bring it we do the follow-up but with the student, we don't follow-up.” (G2)*

The few respondents who expressed their views from the two libraries indicated measures used to retrieve damaged or lost books or overdue items from students and staff.

In summary, the responses from both universities have shown that collection security threats exist in the libraries despite some security measures that have been put in place.

## CHAPTER FIVE

### DISCUSSION OF FINDINGS OF THE STUDY

#### 5.1 Introduction

This chapter presents the discussion of the major findings based on the objectives of the study. The study examined the collection security practices of Valley View and Ghana Communication Technology University libraries. The major findings are discussed under the following sub-headings:

- i. Security threats
- ii. Staff and user awareness of security
- iii. Collection security policy
- iv. Collection security measures in academic libraries

#### 5.2 Security Threats

Security threats are undertaken to know the potential hazards that affect library materials and the specific areas that are subject to threats. This helps librarians to take security steps to curtail the various threats.

The first objective of the study was to find out the existing security threats in the two libraries. It was carried out to verify from both Valley View and Ghana Communication Technology Universities if there were threats with collection security in their respective libraries. The findings showed that all the library staff of both universities agreed that there are threats with collection security. The staff of the two libraries indicated collection security breaches as theft of books, dictionaries, as well as, mutilation and mishelving of library materials. The findings can therefore be attributed to the fact that collection in the library is

made available to patrons at any point in time and as such, they are subject to a lot of breaches when they are using them. It can also be explained that the two libraries play a significant role in their academic institutions because they provide students with their academic informational needs in print, non-print and electronic resources to enable students, lecturers and the academic community to achieve their academic or study goal. It can also be realized that ways to curb security breaches are of concern to the two libraries and as such, they see it as an important way of securing their collection as well as a way the library continually provides the needs of the patrons.

These findings are in line with the findings of Gupta and Madhusudhan (2018) when they reported on a review of literature on the recent developments in the application of electronic security system in libraries. They found out that security breaches in the library include stealing of books placed on open shelves and mutilation of books in a form of an underling of sentences and writing words in the margin of the books. Also, the findings are consistent with what Wallace (2008) revealed in a study on “the perimeter of security policy as the bridge between library security philosophy and library security practice”, in which he “observed that threats of collection security come in many forms, and range from intentional acts such as book theft, vandalism, or identity theft to dangers which originate from unintentional factors such as flood, fire and the natural deterioration of collections”. Similar, researches such as Ayoung, Boatbil, and Banbil (2014); Oyedum, Sanni and Udoakang (2014); Ugah (2007) are of the view that there are various security breaches in libraries. Some of the participants revealed that a patron had her bag containing her money and personal belongings stolen from the library and the security men made a thorough search to retrieve the bag but to no avail, the bag was later found in the male washroom. This supports the view of Holt (2007) who reported on theft by library staff: The bottom line when he observed that “libraries are faced

with the threat of physical material as well as theft and abuse of personal belongings of staff and users”. It can be concluded from the findings that, libraries in Africa face a lot of collection security breaches such as theft and mutilation of library materials and this affects the libraries from performing its academic pursuits in the life of the users.

Additionally, the finding revealed that Valley View University library building has a fire extinguisher and emergency exits with the doors locked. This is due to the fact that the Valley View University library building has two emergency exits with the doors locked. However, the keys to the emergency exits are out of reach meaning that in case of any emergency, patrons and staff may perish inside. The finding is inconsistent with the work of Senyah and Lamptey (2011) who reported on “personal security and safety in academic libraries of the Kwame Nkrumah University of Science and Technology Library, Kumasi, Ghana”. They found out that the library building has no emergency exit point whilst others said there was only one emergency exit point. It can be established that every library must have emergency exits opened in case of a fire outbreak.

Also, the finding showed that Valley View University has a problem with the location of the library. The finding can be attributed to the fact that the library is surrounded by classrooms and the noise affects the activities and health of the library staff. These findings are in line with the works of Senyah and Lamptey (2011) who found that “Kwame Nkrumah University of Science and Technology library is subject to noise pollution from the Royal Parade Grounds, Halls of Residence, vehicles passing and packing around, users and staff”. These excessive noises have serious health implications to both users and staff using the library. Senyah and Lamptey (2011) asserted that noise pollution can be “controlled to prevent library staff from suffering hearing and other health-related problems”. Concerning disaster, the staff

of both Valley View and Ghana Communication Technology Universities are given periodic training on fire outbreak. The finding is in tandem with Afachao (2019), who found that the Ghana National Fire Service (GNFS) had equipped all the library security personnel in both libraries with the skill to use fire extinguishers. Senyah and Lamptey (2011) indicated that “through regular training, staff would be more conscious of what poses a threat to their security and safety”. It can be established from the findings that, the location of the library and threats of disaster are very critical in the use of the library by users and staff.

Furthermore, the study revealed that the causes of collection security in the two libraries are; lack of awareness of rules and regulations, “lack of proper orientation to users on the use of the library collection”, insufficient library collection for users, ignorance, lack of adequate punishment to serve as a deterrent to others and self-interest. The findings are consistent with the work of Ugah (2007) on “evaluating the use of university libraries in Nigeria: A case study of Michael Okpara University of Agriculture, Umudike”, when he identifies various security threats in libraries that cause “serious problems that can result in user dissatisfaction”. The threats are challenging obstacles to information access and use. Also, Adewuyi and Adekanye (2011) examined the “strategy for prevention of crime in Nigerian University libraries: The experience of the University of Lagos”. They affirmed that security is a problem in the library and as such, it has caused great losses to academic libraries as they have to look for other sources of funds to acquire new materials for their users. Further, Jato (2005) investigated the “causes and effects of delinquent behaviour in Kenneth Dike Library”, puts it in a different way that the problem reduces “the library stock, reduces the life span of the mutilated library materials, leads to extra cost, time, and personnel needed to replace the stolen and mutilated library materials, prevents people from locating needed materials, damages the image of the library among others”. From the findings of the study, it

can be concluded that libraries have a lot of problems that need to be dealt with if not the causes of security can affect the activities of the libraries.

Also, the findings seek to find tools used in identifying security threats in the library. It is evident that both Valley View and Ghana Communication Technology Universities identified security breaches in the library through checking, going around monitoring users in the library and weeding. The finding suggests that both libraries use manual tools in identifying collection security breaches such as checking and monitoring by security personnel and weeding by staff. The findings agree with that of Usman (2013) who examined “security management for prevention of book thefts in Benue State University Library, Nigeria”. It was found that there is a need to enhance library security by the deployment of trained library personnel at the security posts. This is because “the security personnel posted to the library are often not literate enough to identify library materials and prevent them from being stolen”. It is obvious from the findings that tools put in place by libraries go a long way to protect their collection.

More so, the study showed that reference and information technology books, fiction collections and past questions are library collections that are subject to security breaches. This is because these materials are mostly used by students in their studies. Also, some of these materials are not borrowable and they are expensive to buy. Given this, Maidabino and Zainab (2012) made it clear that there is “the need to protect library collections (books and non-books) against unauthorized removal or loss and ensures their availability to users”. It can be established that the protection of these materials mentioned makes the resources available to users when needed.



Further, the findings indicated that undergraduate students are those who mostly engage in security breaches. In support of the findings, Igbafe and Sanni (2005) as cited in Omoisejimi, Ojeme and Eghworo (2015) studied “library and information resources’ security: traditional and electronic security measures”. They were of the view that “undergraduate students are introduced to the library early in their educational career through the twin processes of library orientation and credit-earning user education programs.” (p.42). It means if the undergraduate students are introduced to the library early, there is a need for them to be taught about collection security breaches to prevent them from engaging in those acts. It is obvious from the findings that undergraduate students must be introduced early to the effect of collection security breaches.

The study further revealed that Valley View University offenders are dealt with according to the library policy which allows them to pay for the materials or are dealt with by authorities such as the disciplinary committee. On the other hand, Ghana Communication Technology University indicated that they hand them over to the authorities such as the head of security or sent them to the police station. The findings suggest that offenders of library materials are dealt with by the appropriate authorities. These findings support the work of Afacaho (2019) who investigated library resources and security challenges in academic libraries in Ghana. He found out that users who engaged in unacceptable behaviour were cautioned, queried, or made to face disciplinary committee for the appropriate sanction. The findings also support the study by Ameyaw (2018) reporting on “compliance to library rules and regulations by students, a case study of Walton Whaley Library of Valley View University” and it was revealed that users must be subjected to the disciplinary committee. The disciplinary measures include “payment of fines, material replacement or double pay for lost books” to punish students who violate library rules and regulations. It is clear from the findings that

offenders are dealt with by the use of appropriate authorities to ensure that every collection in the library is made available to patrons at any point in time.

### **5.3 Staff and User Awareness of Security**

Every staff and user must be aware of security in a particular library. This awareness would inform both users and staff about the acceptable use of various resources of the library. Being aware prevents security threats that have already been indicated. According to Ameyaw (2018), awareness acts as a catalyst that speeds up discipline among library users. Awareness, therefore, creates obedience and permissible use of the library resources.

The second objective of this study was to determine staff and user awareness of security. The findings show that majority of the respondents from the two libraries were not aware of the library security put in place. The findings can be attributed to the fact that users are not oriented on threats of library security when they are admitted into the university. The findings agree with the finding of Yerby and Floyd (2018) who examined faculty and staff information security awareness and behaviour. They found out that staff and users in the library are “typically not aware of the consequences to themselves or the organization when security breaches occur”. Yerby and Floyd (2018) indicated that “lack of security awareness leads to ignorance, negligence, apathy, mischief, and resistance which are the root of user behaviour that leads to IT security-related vulnerabilities and loss”. It can be established from the findings that awareness of security helps to reduce security breaches in the libraries.

Additionally, the majority of the respondents were aware of the rules and regulations put in place by the two libraries concerning security. It can be deduced from the findings that awareness of rules and regulations have been created in the two libraries. The finding is

consistent with the study of Owolabi, Idowu, and Aliu (2015) on the “awareness and compliance to library rules and regulations by undergraduate students in two university libraries in Southwest Nigeria”. They found that the majority 81 (98.8%) of the respondents agreed that they were aware of library rules and regulations. Similarly, works of Afachao (2019); Ameyaw (2018); Omosekejimi, Ojeme and Eghworo (2015) were reported on the library and information resource’s security and found out that majority of the respondents were aware of the library rules and regulations. This is because the majority of the undergraduate students are registered users of the library and they got to know the rules and regulations guiding the library through the library orientation programme organized for them. It was realized that majority of the respondents from the two libraries were familiar with the following library rules and regulations; “reference books, journals, and magazines are only for consultation within the library and are not allowed to be taken out of the library premises, borrowed books are non-transferable and a borrower shall remain responsible for material issued to him or her until it is returned, the return of books is mandatory before the due date”, books should be handled with care and marking on the books, tearing pages, etc may lead to the initiation of severe disciplinary action on the member. This indicates that the respondents are familiar with rules and regulations put forward by the library staff in the day-to-day running of the libraries. It is clear from the finding that awareness of library rules and regulations leads to compliance which goes a long way to help in the smooth running of the libraries.

Again, the findings revealed that majority of the respondents from the two libraries have not been taken through library orientation whilst a few have gone through library orientation. The finding agrees with the study of Afachao (2019), who indicated that library users were not given any form of library orientation. According to Akussah (2013), there is a need for

orientation for new staff and users of systems, teaching them the need for proper use of systems. Akussah and Bentil (2010) in a study of the abuse of library materials in the University of Cape Coast main Library affirmed that users must be made aware of library orientation for fresh and continuing students to curb the degree of damages to library resources by using notices, flyers, signs, leaflets and circulars. Afolabi as cited in Ameyaw (2018) in a study of “compliance to library rules and regulations by students in Walton Whaley Library of Valley View University (VVU)”, Ghana also indicated that “most students who attended library orientation do not break laws and rules in the library when compared with their counterparts who did not participate in the orientation exercises.” (p. 8). Nina-Okpousung (2011) revealed in a study on library policies and overdue materials in Delta State Polytechnic Library, Nigeria suggests that library staff should organize orientation courses on library use, rules, and user conduct in every academic year. This orientation will assist users to know about the proper way of using the library including the library rules and regulations. It can be concluded from the study that awareness of library orientation is critical if the library wants to play an important role in the life of the users.

Further, the finding established that the two libraries do not provide guides or brochures during library users’ orientation. The finding is in line with that of Afachao (2019) when he studied library resources and security challenges in academic libraries in Ghana. He found out that majority of library users at the University of Professional Studies, Accra (UPSA) were not given brochures or guides that contained library rules and regulations. From observation, the researcher found out that, the staff have a couple of library rules in the library but due to some factors they refuse to make copies for the users. The factor may be attributed to the fact that the cost of printing the library guide for each user is expensive. It implies that users need to come to the library before they can read the guide. Akussah (2013)

in his published book “organizational information system”, indicated that library users need to be taught about the misuse of systems, the dos and don’ts of the use of the system. It can be established from the findings that brochures must be made available to users so that users will be guided during and after the orientation on the acceptable use of the library.

On user awareness of library security threats, the study found that majority of the respondents from the two libraries were fairly aware of library security threats. For instance, the majority of the respondents were not aware of the “manuals and leaflets about the library’s collection security regulations, policy and procedures posted in the library for users and users are not informed about the importance of collection security and informed to report security incidences”. It is evident from the findings that users are not aware of library security threats. In response to awareness, Akussah (2013) in his published book “organizational information system”, posits that library users need to be taught about the misuse of systems, the dos and don’ts of the use of the system so that users will be aware of the information systems. It can be seen from the findings that libraries must use various forms to deal with the awareness of security threats in the library.

Furthermore, the findings showed that majority of library staff from both universities do not have training or attend workshops on collection security, whilst a minority of the staff said they do have training once or twice a year. It can be deduced that most of the staff are not trained on security to be able to curtail it when it occurs. Musa (2017) examined the library security and service delivery in Federal University Libraries in North Central, Nigeria, in which he proposes that one of the collection security measures as training and retraining of staff on security. In support, Usman (2013) in a study of “security management for prevention of book thefts in Benue State University Library, Nigeria”, stated that library

security will be “enhanced by the deployment of trained library personnel at the security posts”. It can be seen from the findings that training on collection security helps to protect the library’s collection.

Finally, the findings revealed security challenges from the two libraries as lack of CCTV, inadequate security personnel and scanners that beep at the entrance of the library should a patron carry any of the library’s collection. It is evident from the finding that both human and technological security is of a challenge in the two libraries. Also, the finding supports the works of Ayoung, Boatbil, and Banbil (2014); Musa (2017), who mentioned that lack of electronic surveillance, lack of staff, sabotage of library security by users among other factors are challenging to security. On the other hand, McComb and Dean (2004) indicated that “supervision, patrolling, surveillance is lacking in libraries and to add to the problem, the key to libraries' vital places are kept unsecured or open to the easy sight of users”.

#### **5.4 Collection Security Policy**

A Collection security policy serves as a written document that guides the protection of the resources of the library. It promotes acceptable behaviour of users and staff in using information resources.

With regard to the third objective, it was revealed that the two libraries have documented security policies in both printed and non-printed format. It can be deduced that the two libraries have collection security policies that guide the functioning of the libraries. The finding is consistent with the works of Afachao (2019) who examined the library resources and security challenges in academic libraries in Ghana and found out that the Joshua Alabi

Library and the Richard McMillan library had library security policies, but they were only available on the webpages of the parent Universities. This affirms the work of Avondale College Library (2008) when security policy was defined as “a written document that spells out how persons within a building can feel safe and secure and building facilities and resources held together in a secured manner”. Abubakar (2015) in a study of “preservation and security of information resources in academic libraries in Niger State, Nigeria”, indicated the importance of a documented policy as helping a user to access how many items a library has and also helps the library to identify problems with information resources and the need to prioritize them.

A further question about the details of the policy was raised, and the participants maintained that it contained the opening and closing hours of the library, the work schedule of staff, disaster plan, number of times to weed library resources annually, e-resources and everything that leads to the general wellbeing of the library. This finding suggests the importance of a library security policy and its contents. The findings corroborate that of Alotaibi, Furnell and Clarke (2015) when they reported towards “a dynamic adaption of user's organisational information security behaviour”. They found out that “security policy forms part of a formal collection of security control and a baseline statement of the collection security task which should be followed by the employees”. Also, Akussah (2013) gives details of the collection security policy as involving technical control over the library system such as access limitations, audit control software, firewalls and antivirus among others.

Finally, the researcher sought to find out if the security policy was functional. Anonymously, participants confirmed that the policy was functional but not anything they strictly adhere to. On the other hand, it is also subjected to review when the need arises. For example, when

new machines are acquired, their operation affects the existing policy. This finding is consistent with Saffady (2005) as cited in Ayong, Boatbil and Banbil (2014) on “how secure are library collections, an evaluation of polytechnic libraries in Ghana”. They pointed out that these policies in the library need to be reviewed periodically and updated to meet the changing trends.

It is obvious from the findings that, collection security policies are very critical in guiding users and faculty about the acceptable use of the library to achieve its mission of acting as the nerve centre of teaching, learning and researching.

### **5.5 Collection Security Measures in Academic Libraries**

Collection security measures are physical and electronic means of ensuring full protection of library resources against unauthorized access. These protections curtail the activities of intruders or unauthorized users from getting access to the resources.

In the fourth objective, the researcher intended to examine the collection security measures in place. The findings from this study revealed some of the following collection security measures that ensure the safety of library resources in the two libraries; users should be made aware of security in the library. This finding is in line with the research which was undertaken by Siponen (2000) as cited in Yerby (2018) in a study of faculty and staff information security awareness and behaviours, in which it was found that knowledge of awareness of security helps the library to prevent threats. The finding is also in line with the studies undertaken by Akussah (2013) and Pradhan and Bhoi (2015) where they indicated the need to “create awareness among staff and users of the library”. This is because “if users are aware of library security, then they will hesitate to be involved in any unethical practices”.



Also, the finding of this study revealed items that can cause damage to books that are not allowed in the library. The findings agree with the study undertaken by Moraa (2013) who investigated on the effectiveness of security procedures in Kenya national library service, Kisii, in which it was found that “the library must determine the type of personal belonging visitors are allowed to bring into the library”. Similar findings were found in the study by Ayoung, Boatbil, and Banbil (2014) on “how secure are library collections, an evaluation of polytechnic libraries in Ghana”, where they indicated that items that can course damage to books not to be allowed in the library.

Additionally, the finding revealed using Uninterruptible Power Supply (UPS) to prevent information being lost when there is power fluctuation. This finding is consistent with the study by Arshad, Naveed and Usman Ali (2017) on “an analysis of the effects of residential uninterpretable power supply systems on Pakistan's power sector; they were of the view that UPS delivers continuous electric power and protect connected loads from sudden power failure”. (p.18)

Next measure was installing antivirus software and updating frequently to ensure the detection and prevention of computer viruses. This finding agrees with that of Akussah (2013) in his published book “organizational information system” recommended the installation of antivirus and updating it frequently.

Other measures were security systems that are placed at the entrance of the library, “exit and stack areas in the library to prevent unauthorised removal of collections (Electronic anti-theft system, visual cameras, smoke detection system, CCTV, magnetic detection system, use of

alarm)". The findings are consistent with those of the study of Kumbhar and Veer (2016) when they reported in their study of security systems used in College Libraries. They found out three security system components, namely: physical security, security measures and the human element. They concluded that electronic security systems such as biometrics, CCTV and RFID have many advantages. Similar findings resulted from the works of Afachao (2019); Akussah (2013); Akussah and Bentil (2010); Musah (2017). They all supported the view of putting in place physical and technological protection measures in the library or information systems. The finding is at variance with that of Kelley (2012) in a study of the new normal of the annual library budgets survey 2012, who was of the view that academic libraries do not opt for electronic security due to dwindling funding from parent institutions.

It is obvious from the findings that libraries must employ both human and technological protection measures to safeguard their collections.

### **5.6 Theoretical Interpretations of the Findings**

The Collection Security Management Model (CSMM) is associated with "a secured house where the alarm system installed should provide adequate protection". The model is based on "the principle of a house and all components that make it secure" (Maidabino & Zainab, 2012, p.109).

The above construct of the CSMM relates to the findings of the study. The first objective of this study was focused on the existing security threats in the two libraries. The theory stated that there is a need for the security management team to do a risk assessment to identify problems in collection security and implement programmes to control it. As such, the findings revealed the collection security threats such as theft of books, mutilation and

mishelving of library materials. Additionally, the findings did a risk assessment of specific areas such as the library building, security personnel, disasters, and location of the library are exposed to a security threat. These security threats are caused by lack of awareness of rules and regulations, lack of proper orientation to users on the use of the library collection, insufficient library collection for users, ignorance, lack of adequate punishment to serve as a deterrent to others and self-interest.

The second and third objective of this study were focused on staff and user awareness of security, and collection security policy respectively. These objectives were linked to user/staff awareness of policies in the theory. This aspect of the theory involves the training of staff and awareness creation of policies and procedures on processes of “collection security management”. The training of staff on the processes of “collection security management” in the theory is linked to the findings in objective two, in which it was revealed that staff in Valley View University have not received any form of training except training on how to deal with fire outbreak whiles Ghana Communication Technology University participants had been given some form of training on how to deal with fire outbreaks. Concerning users, the findings revealed that users in the two libraries were not aware of library security even though they are familiar with rules and regulations. This implies that the study is consistent with the theory, in which it was agreed that awareness of security must be formulated and communicated to every employee who works with library resources. On the other hand, awareness creation of policies and procedures on processes of collection security management is linked to the third objective, in which it was found that Valley View University had a functional security policy that has been documented, strictly adhered to and helped in performing the tasks in the library. In the case of Ghana Communication

Technology University, however, there was a security policy but it was not strictly adhered to. This implies that staff and users must be made aware of the availability of the policies.

Finally, the fourth objective was to examine the collection of security measures in place. The fourth objective was linked to the attributes of “physical and technological practices” in the theory. According to the theory, “this factor involves both the physical and technical mechanisms in implementing a secure collection environment” (Maidabino & Zainab, 2011, p.21). The theory is consistent with the findings, in which it showed that both physical and technological means including users should be made aware of security in the library, items that can cause damage to books are not allowed in the library, fire alarms are placed in strategic areas of the library, using Uninterruptible Power Supply (UPS) to prevent information being lost when there is power fluctuation and installing antivirus software and updating frequently to ensure the detection and prevention of computer viruses. It is therefore obvious from the findings and the theory that both suggest that applying both physical and electronic means provide adequate security protection.

## CHAPTER SIX

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 6.1 Introduction

This chapter is a summary of the major findings based on the research objectives. It also talks about the conclusion and recommendations based on the findings of the study to help enhance collection security in Valley View and Ghana Communication Technology University libraries.

#### 6.2 Summary of Findings

The study examined the collection security practices of Valley View and Ghana Communication Technology University libraries. The study sought to: identify the existing security threats in the selected libraries, determine staff and user awareness of security, verify if there is a collection security policy and examine the collection security measures in place.

##### 6.2.1 Security Threats

The study revealed that the two libraries had collection security threats relating to the theft of books, laptops, dictionaries, bags as well as mutilation and mis-shelving of library materials. Additionally, findings revealed that specific areas such as the library building, security post, and location of the library are exposed to a security threat at Valley View University Library. Concerning the library building, there is a fire extinguisher and emergency exits with the doors locked and the library are located in a noisy area. In terms of disaster, the staff are given training on fire outbreak and in terms of the stock arrangement, it is a threat since it is difficult to tell the number of items that are stolen within a specified period. On the other

hand, security threats identified at Ghana Communication Technology University library are theft of information technology books, mutilation of past questions and laptops. Moreover, both Valley View and Ghana Communication Technology University Libraries experienced threats of the following; lack of multiple security personnel on duty, lack of observation of the rules and regulations, lack of proper orientation for users on the use of the library collection, insufficient library collection, ignorance, lack of adequate punishment to serve as a deterrent to others and mis-shelving for self-interest.

The tools for identifying collection security threats in the library were; checking, going around to monitor users in the library and weeding. The study also showed that reference and Information Technology books were more prone to collection security threat at Ghana Communication Technology University Library whilst fiction collections, inaccessibility of e-resources as a result of computer hardware theft and past questions were library collections that were subject to security threats by undergraduate students at Ghana Communication Technology University Library. Both university libraries ensured that offenders were dealt with according to their respective library policies which allowed them to pay for the materials or handed offenders over to authorities for appropriate punishment.

### **6.2.2 Staff and User Awareness of Security**

The study revealed that library staff of both Valley View and Ghana Communication Technology Universities were familiar with the library rules and regulations. The study also found that majority of the staff of both Valley View and Ghana Communication Technology University Libraries have not had any training on library orientation and those who are taken through the library orientation are not given guide or brochures that contain notes on proper collection security practices.

Moreover, the study found a low level of awareness of security by level 400 students of both Valley View and Ghana Communication Technology Universities. Users were “informed about the importance of collection security and informed to report security incidences, signage both print and electronic, information about collection security and protection” are pasted at vantage places in the libraries for user’s readability.

### **6.2.3 Collection Security Policy**

The research showed that Valley View University had a functional collection security policy which is documented and strictly adhered to. On the contrary, even though Ghana Communication Technology University has a documented library policy and it is functional, it is not strictly adhered to. The study also found that the collection security policy of the two libraries are in a soft and printed copy which contains how the library operates, the opening and closing hours of the library, the charges if a user misplaced a book, the number of times collections are supposed to be weeded, and dress code for the library.

### **6.2.4 Collection Security Measures in Academic Libraries**

The research found that users are aware of human and technological measures put in place by both Valley View and Ghana Communication Technology University libraries. Human collection security measures included “preventive measures that are put in place in libraries to protect collections”. Users were made aware of the dos and don’ts of the use of the library and staff or security personnel placed at the library entrance to monitor users among others. The technological measures included “security systems that are placed at the entrance, exit and stack areas in the library to prevent unauthorized removal of collections and fire alarms placed at strategic areas of the library and this equipment are maintained and tested among

others”. Also, the two libraries have measures that are used to retrieve damaged or lost books or overdue items from students and staff.

### **6.3 Conclusion**

Academic libraries are faced with collection security threats such as theft of books, laptops, dictionaries, bags as well as mutilation and mis-shelving of library materials. These collection security threats are caused by lack of observation of rules and regulations, lack of proper orientation for users on the use of the library collection, insufficient library collection for users, hiding books for personal interest and access, ignorance and lack of adequate punishment to serve as a deterrent to others. As a result, there is a need for awareness to be created for both users and staff by making the collection security policy available to curtail the challenges associated with collection security threats. To establish proper collection security practices in both Valley View and Ghana Communication Technology Universities, there is the need to put in place both human and technological protection measures to make the library collection available when needed by patrons.

### **6.4 Recommendations of the Study**

Based on the key findings and conclusion, the following are recommended:

#### **6.4.1 Training**

Adequate training must be provided for staff at both Valley View and Ghana Communication Technology University Libraries since the finding revealed that there was a lack of training. The emphasis of training must be on collection security threats, and how to take good care of the library collection. This will help the staff of both Valley View and Ghana Communication



Technology University Libraries to be conversant with the control measures if not preventive measures of disasters in the library, in case it occurs. Security personnel at both Valley View University and Valley View University College libraries must be trained on how to guard and protect library materials from unauthorized access.

#### **6.4.2 Orientation and Awareness Creation**

There should be periodic and effective library orientation for all categories of library users. The library orientation should cover areas such as library rules and regulations, collection security threats and safeguarding library materials among others. During the orientation, library guide or brochure or special leaflets or flyers must be shared to students.

There is a need for staff and users to be aware of the importance of collection security. They should have adequate knowledge of the importance of securing library collections. Awareness of collection security helps to control collection security threat thereby protecting the library materials.

#### **6.4.3 Collection Security Policies**

The findings revealed that there is a collection security policy that deals with the activities of the libraries which are documented. However, the researcher requested for their security policy and persisted for two weeks to have a detailed view of it but the policy was not made available to the researcher by both university libraries staff. Therefore, there is a need for the policies to be made available and accessible to staff. Again, policies must be communicated to both staff and users. Besides, the policy can be made available online through the library webpage. Policies must be written in a clear language that can easily be understood by staff

and users. Dos and don'ts, staff training on security awareness, reporting all suspicious characters such as theft and mutilation of library materials must be enshrined in the policy.

#### **6.4.4 Adoption of Physical and Technological Security Systems**

The findings revealed both human and technological security systems. The adoption of both security systems will help to increase access and protect the library resources. Even though the two libraries have security personnel who guard the libraries, there is a need for more security personnel to be employed. Some of the security personnel must be at the library and others must guard the server room. These duties of the security personnel should be stipulated so that they will know what they are supposed to do. On the other hand, technological systems such as CCTV and 3M machines must be installed. CCTV cameras provided must be functional, monitored and maintained. Electronic security measures emphasize the use of technological “devices to handle collection security processes and control security breaches”.

#### **6.4.5 Collective Responsibility**

Both staff of Valley View and Ghana Communication Technology Universities must see collection security as a collective responsibility rather than leaving it to an individual or management. All stakeholders including IT support staff, library staff, users, lecturers, security personnel and management must come on board as a responsibility of ensuring proper security in the library.

#### **6.5 Suggestion for Future Research**

The study was limited to Valley View and Ghana Communication Technology University libraries. Given this, the researcher suggests the following areas for further research:

1. Collection security in academic libraries; A comparative study of private and public academic libraries.
2. Collection security in private academic libraries; A focus on other private academic libraries in Ghana.

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**APPENDICES**

**APPENDIX A**

**QUESTIONNAIRE**

**COLLECTION SECURITY IN ACADEMIC LIBRARIES: A STUDY OF SELECTED  
PRIVATE UNIVERSITIES**

**Questionnaire – Level 400 students**

Dear Respondent,

I am an MPhil student at the Department of Information Studies, University of Ghana, Legon.

This questionnaire is soliciting your view on the topic, “*Collection security in academic libraries: A study of selected private universities.*” I would appreciate if you could spend some time to answer the questions in the questionnaire. The answers you provide will be treated solely for research purposes and with absolute confidentiality. Thank you.

Deborah Nyamewaah Amankwah.

**Section A: Background Data of Respondents**

1. Please, indicate your institution.

a. Valley View University (VVU) [ ]

b. Ghana Technology University College (GTUC) [ ]

2. Please, indicate your gender.

a. Male [ ]

b. Female [ ]

3. Please, select the option that describes your age range (in years).

a. Below 20 [ ]

b. 20-24 [ ]

c. 25-29 [ ]

d. 30-34 [ ]

e. Above 34 [ ]

4. Which programme do you offer?

.....

**SECTION B: Security Threats**

5. Do you think that security is a problem with the library?

- a. Yes [ ]
- b. No [ ]
- c. Sometimes [ ]

6. What are some of the challenges to security?

.....  
.....  
.....

7. Which of the following do you think are some of the causes of insecurity in the library? (Tick as many as applicable)

- a. Limited/insufficient library collection for users [ ]
- b. Selfish interest [ ]
- c. Lack of proper orientation to users on the use of the library collection [ ]
- d. Ignorance [ ]
- e. Lack of awareness of rules and regulations [ ]
- f. Lack of adequate punishment to serve as a deterrent to others [ ]
- g. Other (please specify).....

**Section C: User Awareness of Security**

8. Are you aware of security being put in place in the library? (Choose one)

- a. Yes [ ]
- b. No [ ]

9. If yes, how was the awareness created?

.....  
 .....

10. Are you aware of the rules and regulations in the library? (Choose one)

a. Yes [ ]

b. No [ ]

11. Which of the following library regulations are you familiar with? (Tick as many as applicable)

Patrons must be registered in the library		Consulted books are to be left on the reading table	
Reference books, journals, and magazines are only for consultation within the library and are not allowed to be taken out of the library premises		Using computers for unauthorised purposes or non-academic related activities	
Borrowed books are non-transferable and a borrower shall remain responsible for material issued to him or her until it is returned		Books should be handled with care. Marking on the books, tearing pages, etc may lead to initiation of severe disciplinary action on the member	
No personal belongings are allowed in the reading area		Return of books are mandatory before the due date	
Shelving of library materials are not allowed by patrons		Bringing unauthorized persons to the library or computer lab. is not allowed	

Any other (please specify).....

12. Have you ever gone through any library orientation?

a. Yes [ ]

b. No [ ]

13. Were you given a library guide which contains library rules and regulations?

a. Yes [ ]

b. No [ ]

14. Please show the extent to which you agree with the following statements in relation to user awareness of library security issues. Please tick (✓) the appropriate answer under the number as follows

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

Statement	1	2	3	4	5
<b>User Awareness of Security</b>					
1. Manuals and leaflets about the library's collection security regulations, policy and procedures are posted in the library for users					
2. Users are informed about the importance of collection security and informed to report security issues and incidences					
3. Signage both print and electronic informing about collection security and protection are easily seen by users					
4. There are organised activities and training offered to increase user awareness					
5. Users are given training to understand the content of the collection security policy and how to handle security issue incidences					
6. Staff are trained to handle delinquent borrowers and					

users					
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**Section D: Collection Security Measures**

15. Please show the extent to which you agree with the following statements in relation to collection security measures. Please tick (✓) the appropriate answer under the number as follows

**Strongly Disagree**                      **Disagree**                      **Neutral**                      **Agree**                      **Strongly Agree**  
**1**    **2**    **3**    **4**    **5**

Statement	1	2	3	4	5
<b>Collection Security Measures</b>					
1. Preventive measures are put in place in libraries to protect collections (restricting staff to control areas, computer laboratories, rare collections area, grills for windows)					
2. Users should be made aware of the dos and don'ts of the use of the library					
3. All OPAC stations, PC/Internet workstations are protected from unauthorised access (through passwords and user IDs)					
4. Security systems are placed at entrance, exit and stack areas in the library to prevent unauthorised removal of collections (Electronic anti-theft system, visual cameras, smoke detection system, CCTV, magnetic detection system, use of alarm)					
5. Use of staff or security personnel at the gate to monitor users					
6. Security outreach programs/workshops, seminars, conferences for library users					

7.	Registration of all library users					
8.	Orientation of users on how to handle and use library collections					
9.	Checking users ID card before they are allowed access to the library					
10.	Periodic search of patrons and staff when exiting the library					
11.	Items that can cause damage to books are not allowed in the library					
12.	Fire alarms are placed in strategic areas of the library and these equipment are maintained and tested (through fire drills)					
13.	Maintenance of all OPAC and Internet workstations are scheduled regularly					
14.	Password requirements are in place to access electronic resources (ie. online databases, e-books, e-journals)					
15.	Collection security is given consideration when planning the layout of shelves, sitting and reading areas, placement of fire prevention equipment.					
16.	Periodic random checks are carried out on users and staff who enters or exit the library is carried out (checking IDs and personal belongings)					
17.	Keeping library resources under lock and key					
18.	Using audit control software to keep track of all activities performed by users using computers					
19.	Physically securing computers to desks					
20.	Installing antivirus software and updating frequently to ensure the detection and prevention of computer viruses					

21.	Biometric devices at the entrance to prevent unauthorised user access to library/computer lab.					
22.	Using Uninterruptible Power Supply (UPS) to prevent information being lost when there is power fluctuation					
23.	Firewalls and intrusion detection systems are installed to hinder unauthorised user access to library systems and databases					

**Section E: Recommendations for Improvements**

16. What are the ways of ensuring effective collection security management?

.....

.....

.....

.....

.....

**Thank you so much for your time and cooperation.**



## APPENDIX B

### INTERVIEW GUIDE

#### SECTION A: Demographic information of Participants

1. Name of institution.....
2. Category of participant
  - a. Professional
  - b. Paraprofessional
  - c. Nonprofessional
3. Gender.....
4. Highest level of academic qualification?
  - a. Diploma
  - b. Degree
  - c. Masters
  - d. PhD
  - e. others
5. Status or rank at the library
  - a. Library assistant
  - b. Senior library assistant
  - c. Assistant librarian
  - d. Deputy librarian
  - e. Librarian
  - f. Security personnel
6. How long have you worked in the library?

### **SECTION B: Security Threats**

1. Are there any security issues in your library?
2. If yes, what are the types of collection security issues in your library?
3. Which of the security issues have you experienced in the library?
4. Please, critically assess or examine the following security threats in your library that you are exposed to:
  - a. Library building
  - b. Details of the library's security policy
  - c. Security personnel
  - d. Stock arrangement
  - e. Staff relationship with users
  - f. Disasters
  - g. Location of the library
  - h. Risks of staff (morning and night duty)
  - i. Staff training
5. What are some of the challenges to security?
6. State the causes of security challenges?
7. What tools do you use in identifying the security issues to your library collection?
8. Which of the library collection is subject to security issues?
9. Which section of the library is prone to security issues and why?
10. State the category of users that contribute to security issues in your library.
11. How are such offenders handled to deter them from security issues?
12. Which organ is responsible for punishing the offenders?

**SECTION C: Staff Awareness of Security**

13. Have you had any training or workshop on library security since you were employed?
14. If yes, how many times and can you describe what they talked about?
15. Are you aware of security being put in place in the library?
16. What are some of the things you are aware concerning the following related to security:
  - a. Aware of common security incidences in the library.
  - b. Awareness of challenges or obstacles

**SECTION D: Collection Security Policy**

17. Do you have a collection security policy in your library?
18. If yes, why do you adopt the policies?
19. What is the nature of such a policy?
20. What does the policy entail or deals with?

**SECTION E: Collection Security Measures**

21. What are the measures used to reduce collection security challenges?
  - a. Manual security system
  - b. Electronic security system
22. How effective are the following security systems in your library?
  - a. Manual security system
  - b. Electronic security system
23. What steps do you take to secure your library collection?
24. What tools do you use in securing your collections?

25. What are the checks put in place to retrieve lost and overdue collections from students and staff who have completed school or staff no longer in the employment of the institutions?

**Section F: Recommendations for Improvements**

26. What are some of the suggestions that can be adopted for effective collection security management in the library?