

**THE ROLE OF LIBRARIANS AND FACULTY IN PREVENTING PLAGIARISM  
AMONG STUDENTS AT STRATHMORE UNIVERSITY**

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**DECLARATION**

I declare that this thesis is my original work and has not been presented for any degree award at any other university.

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## **DEDICATION**

I dedicate this thesis to my family for the support and prayers offered during this research and to the Almighty God for the grace to complete this work.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>DR &amp; I</b>	Director of Research & Innovation
<b>FIT</b>	Faculty of Information Technology
<b>GDT</b>	General Deterrence Theory
<b>ICT</b>	Information Communication Technology
<b>IR</b>	Institutional Repository
<b>IL</b>	Information Literacy
<b>NACOSTI</b>	National Commission for Science, Technology and Innovation
<b>PDs</b>	Primary Documents
<b>SGS</b>	School of Graduate Studies
<b>SIMS</b>	Strathmore Institute of Mathematical Sciences
<b>SLS</b>	Strathmore Law School
<b>SU</b>	Strathmore University
<b>SUL</b>	Strathmore University Library
<b>SUSGS</b>	Strathmore University's School of Graduate Studies

## DEFINITIONS OF TERMS USED

**Plagiarism:** it is the use of language, words or text which has been borrowed, stolen or taken from a particular source by a researcher, without paraphrasing or with inadequate acknowledgement, and passing it off as one's original work (Ronai, 2020).

**Academic integrity:** According to the International Center for Academic Integrity, academic integrity is defined "as a commitment, even in the face of adversity, to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage" (Gamage et al., 2020, p.2). It is generally an honest demonstration of moral behaviour in an academic setup

**Attribution:** Acknowledging that a certain form of information came from another source by indicating bibliographic details of the original author.

**Citation:** A brief and formal indication of the information source, mostly includes the author's surname and the date of the specifically cited publication (Turnitin, 2017).

**Paraphrasing:** Restating a text or passage in different words, while maintaining the original and important ideas (Vila et al., 2014).

**Institutional Repository (IR) -** A digital archive of knowledge makers' intellectual production within an institution, such as research staff, students and faculty, of which access is granted to authorized parties usually with some restrictions (Priyadarshani, 2019).

## ABSTRACT

There is a growing concern over the rising incidences of plagiarism among students in institutions of higher learning both in Kenya and globally from the reports extracted using the similarity checker softwares on final submission of researchers' work. Evidence of plagiarism is often uncovered by both the faculty when reviewing students' works and by librarians in the process of preparing such works for archival in institutional repositories. This study aimed at investigating the role of librarians and faculty in preventing plagiarism among students and proposes a framework for harmonization of various role at Strathmore University (SU), in Nairobi, Kenya. The specific objectives were to: examine the nature and extent of plagiarism in academic research at SU; investigate the influence of the internet on plagiarism; identify the challenges encountered by librarians and faculty while enforcing anti-plagiarism regulations at SU; and propose a framework for harmonizing the role of librarians and faculty in preventing plagiarism among students at SU. The General Theory of Deterrence (GTD) underpinned this study. This study applied the convergent mixed methods research design. Purposive sampling was used to select respondents from students, faculty and administrators, while census sampling was used for all librarians. The study population was 472. A sample of 189 respondents was drawn from the 4<sup>th</sup> year undergraduate and 2<sup>nd</sup> year postgraduate students, the faculty members, Directors of Research & Innovation and the main university library staff. Qualitative data was collected using interviews and quantitative data through questionnaires and analysed using ATLAS.ti software and SPSS software respectively. The study revealed four main forms of plagiarism including unintentional, casual, intentional and self-plagiarism which are committed via CTRL-C, Find-replace and recycling methods. Second, that the availability of the internet and the campus WI-FI and alternative connectivity options (such as use of data bundles), e-resources and negative use of electronic devices have fuelled plagiarism. Third, that the challenges faced by the librarians and faculty in preventing plagiarism included a lack of clear institutional policies on plagiarism, clarity on the role for all players involved, and lenient penalties for plagiarists. This study recommends strategies like collaboration, training and policy adoption as ways of tackling the challenge. It further proposes a framework for harmonizing the role of librarians and faculty as one way of preventing plagiarism at the SU.

# CHAPTER ONE

## INTRODUCTION

### 1.0 Background to the Study

This chapter presents an overview of the concept of plagiarism. It also consists of the background information of the contextual setting, the statement of the problem, aim of the study, objectives, research questions, assumptions, significance, scope, justification, limitations and dissemination strategy of the study.

Plagiarism involves using a person's original work and failing to give appropriate and reasonable acknowledgement to the source (Begovic, 2014; Starovoytova, 2017). It is a term that originates from a Latin word 'plagiarius,' meaning "kidnapper" and it refers to the act of plagiarizing, that is, close imitation or copying of a different author's work by a researcher to present the results as your authentic work, without rightful acknowledgement of the work's source (Sadeghi, 2019; Stitzel et al., 2018). The origin of the word 'plagiarism' can be interpreted in a variety of ways. It also refers to a kidnapper who entraps children or slaves in a plaga (net).

#### a) Global perspectives

According to Fleming (2008), the Roman poet Martial (40-102 AD), intensely possessive of his literary works, was the first to use the word plagiarius to someone who stole his words and falsely claimed authorship. This improved the literature, and the terms plagiary and, later, plagiarism, became widely used. Theft of words in writing has become a major problem in the book culture. More and Shelar (2011), put it this way, that according to Richa (2016), the English word 'plagiary' was first used in Ben Jonson's 'The Poetaster' in 1601 to describe a literary thief who steals another's words or ideas without permission. Although Sir William Shakespeare coined the term plagiarism verbatim, Oxford Dictionary credits Ben Jonson with the first use of the term in print

(Ashikuzzaman, 2019). Plagiarism is ‘described as a sin against originality.’ It entails stealing (through copying) and literal theft of his or her words, or ideas of a different person and communicating them as one’s own, stealing of thoughts or intellectual shoplifting, without crediting the source (Colon, 2001; Miller, 1993; Stebelman, 1998; Whiteneck, 2002).

Plagiarism, according to another definition, occurs when a material is used in part or in whole, that is not fully one's work, and those same pieces are not properly attributed to their correct sources.

Plagiarism is described as stealing at Auburn University, and it relates to utilizing someone else's words or ideas as if they were one's own (Liddell, 2003). Plagiarism, according to Liddell (2003), is when you use someone else's words, ideas, organization, drawings, designs, illustrations, statistical data, computer programs, inventions, or any other creative work as if it were your own.

As a result, it comprises both real and intellectual property, as well as material in the public domain. Plagiarism is defined as the purchase or acquisition of papers, the copying and pasting of information from the internet, the failure to use quotation marks around direct quotes, paraphrasing, and the failure to cite original works.

According to Ali et al., (2012), from a study conducted on the extent of plagiarism at The University of Putra in Malaysia, plagiarism is considered a type of academic dishonesty and has been identified to be a problem since the 1600s, and different institutions are undertaking varied approaches to dealing with the issue.

According to Hu and Lei, (2015), plagiarism can take several forms, such as faking a single citation, forgetting to cite unoriginal ideas, duplicating sentence structure or multiple sentences, or copying a whole piece of written work. There is a generalized worldwide view on plagiarism as a common form of academic dishonesty across all researchers’ levels ( Khan, 2019; Perry, 2010; Starovoytova, 2017). Plagiarism is the most widespread kind of academic dishonesty, according

to experts. It involves using information, existing materials, knowledge or ideas without acknowledging the sources or the authors and without the researcher's input of his or her original ideas too (Juyal et al., 2015).

Librarians can act as moderators of academic dialogue and work with faculty to assist students to understand how knowledge is generated and how they, as students, can contribute to the conversation and expand on past scholarship (Michalak et al., 2018). The problem is that academic librarians were not often consulted when academic honesty policies and procedures are developed at many universities. Their lack of participation was documented in the literature on the Canadian librarianship (Drinan & Gallant, 2008; Zimmerman, 2012). However, Eaton & Christensen Hughes, (2022) improved on the later in a study titled "Beyond the traditional: academic integrity in Canadian librarianship," and explains that currently librarians are more informed on issues pertaining information literacy and plagiarism and therefore stand a chance to collaborate with the instructors in mitigating plagiarism. Faculties, schools and departments within institutions of higher learning need partners in form of academic research professionals in finding solutions to the growing problem of plagiarism (Lampert, 2014). A close collaboration of academic librarians and faculty can be a winning strategy against plagiarism (Gunnarsson et al., 2014). They can work together towards having an educational perspective meaning working on the integration of plagiarism education into the students' subject studies (Gunnarsson et al., 2014). From a study by Michalak et al. (2018), findings indicate inconsistencies and complications reflected from faculty's responses on the definition of plagiarism. Furthermore, a disparity was found in how the faculty teaches plagiarism.

### **b) Regional perspective**

According to (Stander, 2020), from a study conducted at a university in South Africa, plagiarism is when you have someone else write your paper (or a significant portion of your paper) and submit it as if it were new and original to you. Nimulola (2018) conducted a study on the 'Examiners comments on the masters' dissertations at the Islamic University of Uganda,' and concluded that the students need to undertake more workshops and trainings on scholarly writing and research methods. This was after the originality and authenticity of the theses was found to be quite low.

Most of the final research works in most institutions are published in the Institutional Repository. An Institutional Repository (IR) represents a new technique for e-collection development, and for managing digital documents. Academic libraries can improve services such as information dissemination, access, preservation, and use, as well as content submission and organization, by implementing an IR. Intellectual output from students and staff, such as theses, are archived in the IR and access is given to authorized users, managed by academic librarians (Ashikuzzaman, 2018; Kalbande, 2019). According to Francke et al. (2017), from a study undertaken in Sweden, the key function of IR include long-term preservation of publications alongside access and distribution. The IR is also used in increasing the institution's visibility, university ranking procedures and unlocking the grey literature (Anene et al., 2017; Kakai & Okello-Obura, 2018).

### **c) National perspective**

The Commission for University Education (CUE) (2019), in Kenya, acknowledges that plagiarism among university students of grave concern. CUE highlights plagiarism as one of the major challenges facing research in Kenyan universities. To mitigate plagiarism, it recommended that all students' reports, theses and dissertations must provide a plagiarism report for review.

Academic librarians globally have sought a more active role in plagiarism discussions. Academic librarians became more involved in training students on how to do ethical research and how to best use the material they uncover after the Association of College and Research Libraries (ACRL) adopted Information Literacy Competency Standards for Higher Education in 2000 (Gibson & Fangman, 2011; Iannuzzi, 2000).

From a general perspective, the researchers need to follow academic honesty policies and procedures while preparing and submitting their research for publication. Some of the ways of doing this includes researchers taking time in conducting research to maximize on the findings, understanding what constitutes plagiarism, paraphrasing their work with appropriate acknowledgement, creative and critical thinking during research, and running the final work through an anti-plagiarism software (Awasthi, 2019). Having policies in place for plagiarism is one thing, however, enforcement and compliance is arduous. Different countries have introduced different policies on curbing plagiarism within institutions by academicians, such as a threshold percentage for similarity on plagiarism detection (Awasthi, 2019). Effective plagiarism management policies should follow a holistic approach (Colella-Sandercock & Alahmadi, 2015). A policy on plagiarism and its repercussions can have a big impact on how serious students think it is (Deubel, 2018). Plagiarism policy should be open, honest, fair, and consistent, and all participants should have a clear understanding of their duties and responsibilities (Park, 2004). One way of ensuring compliance with academic honesty is through the assistance of academic libraries, librarians and Institutional Repositories by creating awareness among the academic researchers.

## **1.1 Context of the Study**

The study was undertaken from Strathmore University, a private institution of higher learning in Kenya.

### **1.1.1 Strathmore University**

Strathmore University was established in 1961 as Strathmore College offering A-Level studies. The Kenya's Commission for Higher Education chartered it as a university in 2007. To date, it has grown and offers a wider scope of undergraduate and postgraduate courses to students globally (Strathmore University, 2019). One of the strategic pillars for SU is research. Strathmore University is regarded as a teaching and research institution of distinction. It does it by providing facilities and support for cutting-edge research and extension services. The conditions are favourable for progressive education. Its mission is to foster academic collaborations, partnerships, and connections with other academic institutions, the professions, industry, and commerce, as well as to be a leading technology innovation centre with a focus on local applications. Currently, in addition to the School of Graduate Studies where academic research is undertaken, other research centres set up within SU include: @iLab Africa; Strathmore Energy Research Centre (SERC); Strathmore Dispute Resolution Centre (SDRC); Strathmore Extractives Industry Centre (SEIC); Centre for Intellectual Property and Information Technology Law (CIPIT); Strathmore Institute for Advanced Studies in International Criminal Justice (SIASIC); Centre for Research in Education (C4RE); Institute of Healthcare Management (IHM) and Strathmore Institute for Public Policy and Governance (SIPPG). In progress are the Strathmore Centre for Law and Policy (SCLP) and the Institute of Family Studies and Ethics (IFS) (Strathmore University, 2019).

### **1.1.2 Strathmore University Library**

The University has three physical library buildings. The Strathmore Business School (SBS) library; mainly used as a study area with some physical books collection too, the Anjarwalla and Khana Library (A & K) also known as the Law library with purely law items collection and a study area, thirdly, there's the university's main library which is manned by a majority of the librarians and contains the most collection alongside the largest study area among the three (Strathmore Library Services, 2021). For this research study, the focus was on the SU main library, which constitutes of nine members of staff, that is, one University Librarian, one deputy librarian and seven assistant librarians who play different role in the various departments. The highest level of education among the staff is a PhD holder with the least as a bachelor's degree holder. The main departments within the library include the user services (circulation, special collection, audio-visuals, Information Literacy & quality assurance), technical (acquisition/ collection development and bibliographic services) and ICT services. The main programmes conducted within the library are library orientation, Information and Literacy trainings. The SU Institutional Repository had a collection of 3000+ as at the time of the study (DSpace software, 2021). The Strathmore University library best suits for this study as it aims at supporting teaching and scientific research through the provision of information resources.

## **1.2 Statement of the Problem**

The role of librarians and faculty in combating plagiarism has not been clearly spelt out in the academic integrity literature (Smith, 2019). Studies conducted on plagiarism do not clearly outline the harmonized role of librarians and faculty in preventing or curbing plagiarism (Idiegbeyan-ose et al., 2018; Jilani & Naved, 2021). Lack of clear institutional guidelines on plagiarism presents

further challenges to librarians' and faculty's role (Javaeed et al., 2019). According to Bretag (2013), studies on plagiarism have mainly focused on the role of teaching, learning, deterrent strategies, detection tools and penalties. Despite such efforts, plagiarism is currently on the rise (Chankova, 2017). Evidence of plagiarism is unearthed by lecturers when reviewing students' works (Santoso & Cahaya, 2019). Librarians have also detected plagiarized works in the process of preparing such works for archival in the institutional repositories (Idiegbeyan-ose et al., 2018). Plagiarism has greatly affected the research process and output, leaving behind a series of negative results. For example, a study by Roig (2015), describes cases of plagiarism aftermath such as the resignation of affected persons (education minister, psychologist, U.S senator, among others) from their positions for having plagiarized in their research works. These negative results affect the researchers, their parent institutions and the general population. If plagiarism becomes commonplace, it will jeopardize the security of scientific information. Fewer individuals will bother performing research in such a setting; instead, most researchers will rely on ready-made knowledge provided by previous researchers, thus creation of minimal new knowledge. Such irrational behaviour will obliterate the foundations of scientific development and all other endeavours. If a country's scientific foundations are eroded, it will remain stuck in the past and will not progress (Bahadori et al., 2012).

Librarians, faculty and other information professionals view plagiarism as the worst form of academic misconduct and the most prevalent unethical behaviour among students, lecturers and researchers in academic institutions (Starovoytova, 2017). The faculty in most institutions of higher learning acknowledge the prevalence of plagiarism amongst students at different educational levels (Eaton et al., 2021; Michalak et al., 2018). Several factors are contributing to plagiarism among students. These include exposure to the internet with the ease of copy-paste,

inadequate citation and referencing skills, lack of deterrence, student laziness, poor time management and peer pressure, among others (Gerhardus et al., 2020; Mosha & Laizer, 2021; Starovoytova & Namango, 2017). Strathmore University is not an exception. This study sought to establish a middle ground through which librarians and faculty can collaborate to mitigate plagiarism among the students at the SU.

### **1.3 Aim of the Study**

The aim of this study was to investigate the role of librarians and faculty in preventing plagiarism among students and propose a framework for their harmonization at Strathmore University, in Nairobi, Kenya.

### **1.4 Research Objectives**

The objectives of the study were to:

1. Examine the nature and extent of plagiarism in academic research at Strathmore University.
2. Investigate the influence of the internet on plagiarism at Strathmore University.
3. Find out the challenges encountered by librarians and faculty while preventing plagiarism at Strathmore University.
4. Propose a framework on harmonizing the role of librarians and faculty in plagiarism prevention at Strathmore University

### **1.5 Research Questions**

1. What is the nature and extent of plagiarism in academic research at Strathmore University?
2. What is the influence of the internet on plagiarism at Strathmore University?
3. What are the challenges encountered by librarians and faculty while preventing plagiarism at Strathmore University?

4. What framework can be used to harmonize the role of librarians and faculty in plagiarism prevention at Strathmore University?

### **1.6 Assumptions of the Study**

The researcher assumes that the Strathmore University faculty members and librarians have undergone training and that they understand the concept of plagiarism, its institutional policy and are well equipped with Information Literacy skills.

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

The study's findings and recommendations will help to raise awareness among students about how to research with minimal plagiarism. It will raise readers' awareness of plagiarism and how to deal with the problem among students. The study is available to everyone who wants to take part in the research. Finally, the research will assist policymakers and decision-makers in developing regulations that will guide students in their research and help academic institutions avoid plagiarism. The policy will be redesigned to fit the current changes by the institutions that have it. This report can be used by the Strathmore University administration to develop a clearer policy in the area of academic dishonesty among students, and can be applied by other universities too that face related challenges on plagiarism prevention.

### **1.8 Justification of the Study**

This study on the role of librarians and faculty in preventing plagiarism among students at SU is necessary for various reasons. First, the librarians and faculty need to understand their role clearly and act accordingly and this minimizes instances of plagiarism. Second, the researchers need to improve their research skills and have minimal or no plagiarism, hence high-quality research work and more research output, thus the institution will have a high ranking in the area of research.

Third, the country needs to have more authentic research work and an increase in literature to enhance more research and attract more research grants. The findings of this study are necessary, as they will be added to the existing body of knowledge in the area of the role players in mitigating plagiarism in a more clarified way.

### **1.9 Scope of the Study**

The study was carried out at Strathmore University, along Ole Sangale road, Madaraka estate, at Nairobi, Kenya and was limited to the entire SU Library staff, the second-year postgraduate and selected undergraduate students, faculty members and the Directors of Research and Innovation of the selected faculties for three faculties Strathmore Institute of Mathematical Sciences (SIMS), Strathmore Law School (SLS) and the Faculty of Information Technology (FIT).

### **1.10 Limitations of the Study**

There were few major limitations experienced in the data collection process. Authorization to collect data was one main challenge. The process of obtaining a research license permit from NACOSTI, and the ethical clearance at SU took long. The researcher eventually got approval from the SU ethical review team, causing a delay of over three months before commencing the data collection process. This therefore forced the researcher to distribute questionnaires through online Google forms and persistently follow up with the help of the course administrators as the targeted respondents had taken a study break.

### **1.11 Dissemination Strategy**

Dissemination in this case, involves the methods through which the researcher will communicate her findings to her target audience. First, the researcher will present the findings and proposed recommendations to Strathmore University research office for their application. Second, the findings and proposals will be published in both national and international journals for other

researchers to acquire and apply the knowledge in context. Third, the research findings will equally be presented in relevant academic conferences and in meetings of professional associations.

### **1.12 Chapter Summary**

This chapter introduced the plagiarism concept and discussed the background of the study, including the statement of the problem aim and the study objectives. The next chapter will present a review of the literature for this study.

## CHAPTER TWO

### LITERATURE REVIEW AND THEORETICAL FRAMEWORK

#### 2.0 Introduction

This chapter presents a review of literature based on the objectives of this study. It presents them as follows: nature and extent of plagiarism; the influence of the internet on plagiarism; challenges faced by librarians and faculty; plagiarism prevention among students; the theoretical framework for this study and the research gaps.

#### 2.1 The Nature and Extent of Plagiarism

Plagiarism is a form of academic misconduct that occurs during information use. It can be in the context of information application, knowledge construction or information effects. It is within the cycle of information behaviour (Kari, 2010).

Plagiarism can be divided into four categories namely: casual; unintentional, intentional, and self-plagiarism (Maurer et al., 2006). Because of a lack of knowledge of plagiarism or a lack of comprehension of citation or reference, casual plagiarism occurs (Maurer et al., 2006). Even if a person does not want to plagiarize, unintentional plagiarism occurs when he or she mistakenly passes off other people's ideas as their own without properly referencing them. It involves things like sloppy paraphrasing, paraphrasing a source without citing it, and omitting to provide footnotes, among other things (Ashikuzzaman, 2019). Intentional plagiarism is the deliberate misrepresentation of someone else's ideas or words as your own without proper credit. Plagiarism that is done on purpose is considered to be more serious because it entails deliberate, premeditated deception (Taylor, 2019). Self-plagiarism is the use of one's own previous work in another context or different form without acknowledgement (ORI, 2019). However, this resource does not explain

further on the factors that influence a researcher to commit a specific type of plagiarism, hence this causes a gap in the literature.

Ashikuzzaman (2019) discusses some of the most common ways as classified by Turnitin.com through which students plagiarize, ranked in order of severity of intent include; clone (submitting someone else's work as one's own word-for-word); CTRL-C is the shortcut for copying and pasting (contains significant portions of text from a single source without alterations); find – Replace (changing key words and phrases but retaining the essential content of the source); remix (paraphrases from multiple sources, made to fit together); recycle (generously borrows from the author's past work without citing it); hybrid (combines properly cited sources with copied passages that aren't accompanied by citations); mash-up (combines material from a variety of sources); 404 Error (combines copied content from many sources); aggregator (includes necessary citations to sources, however there is essentially little unique work in the paper) and re-tweeting that includes proper citations but is overly reliant on the original text's phrasing and/or structure.

Plagiarism is widespread among undergraduate and postgraduate students globally (Frick et al., 2018; Khathayut et al., 2022; Mbutho & Hutchings, 2021; Tran et al., 2022). It is also widespread among authors in various types of publications including scientific papers and book chapters. For example, the Chinese African National Science Foundation (NSF) revealed in 2018 that they witness high proportions of retractions of published articles due to plagiarism (Ataie-Ashtiani, 2017; National Science Board, 2018). Plagiarism is viewed as scholarly wrongdoing and incorporates exercises like trickiness, cheating, scholarly untrustworthiness, moral melting away, among others. However, the idea of literary theft is not old; there have been various rates in educational circles. Even well-known authors, composers, writers, and academics such as William Shakespeare, Laurence Sterne, Samuel Taylor Coleridge, Oscar Wilde, Martin Luther King, Jr.,

George Harrison, Alex Haley, and Jayson Blair have been accused of stealing information without giving proper credit (Singh, 2018). Some of them were found guilty, for instance, Alex Haley, while others denied the plagiarism claims such as George Harrison. Another example comes from Germany, where two well-known Cabinet members are involved. They were compelled to leave the office because of allegations of plagiarism in their dissertations. When it was shown that substantial portions of his thesis were not his original work, then-Defense Minister Karl-Theodor zu Guttenberg lost his degree and resigned in 2011. Annette Schavan, the then-Education Minister, resigned two years later when her degree was revoked by a university (Moulson, 2021).

### **2.1.1 Causes of Plagiarism among Research Students**

Studies on the causes of plagiarism among students are spread globally. Some examples of global as well as African perspectives are discussed in this section.

#### **2.1.1.1 Global Perspective**

In research on plagiarism in the United Kingdom, students' perspectives on such values as friendship, trust, and good learning were found to have a solid moral foundation. This means that some penalized behaviour may be justified, while some officially sanctioned behaviour may be questioned (Mahmud et al., 2019). Students' judgments of plagiarism were based on values such as friendship, trust, and good learning, according to another study conducted in the United States by Husain et al., (2017), yet another study indicated that religiosity played a role in whether or not a student plagiarized (Chang, 2002).

In a study conducted in Singapore by Lim and See (2001), it was discovered that most students are ethically ambiguous about plagiarism and are more tolerant of dishonesty among their classmates, failing to report such incidents. Pupovac et al. (2008) found that the plagiarism percentage was

high as the students mostly allow plagiarism while undertaking their research. Intentional plagiarism among international foundation students in the United Kingdom is common due to time constraints for work submission (Bamford & Sergiou, 2005). Alberta University (2001), also found out that proper acknowledgement is a difficult concept to understand for many Asian students due to their lack of seriousness on the concept of plagiarism. Minor plagiarism is primarily caused by a lack of understanding of citation and referencing, according to the Joint Information Systems Committee (JISC) (2002) in the United Kingdom.

According to Ramberg et al., (2019), the classes in which students are most tempted to cheat are those in which students perceive their teachers do not care to read their papers or closely review their work, thus underlining the necessity of a trusting relationship between a student and the teacher. All these are due to the differences in general personal values and attitudes towards their teachers and studies too. Students plagiarize to improve their grades and save time; this is known as efficiency gain. Some plagiarize because of what Rets and Ilya, (2018) call ‘the GPA (Grade Point Average) thing’, that is, the average result of the student’s grades. In such a case, plagiarism becomes ‘the price of an A’ in such a way that students intend to score higher grades by committing it (Whiteman & Gordon, 2001). According to Auer and Krupar (2001), students have a strong consumer mind-set, with the belief that they are meant to obtain grades based on their effort rather than ability.

For China, having an increased plagiarism prevalence rate yet it is in the top list of countries with the highest scientific publications, has caused it a low acceptance of some of its manuscripts by academic journals. The main factor contributing to plagiarism, in this case, is tagged on the pressure to be a productive publisher as one pursues career and education advancement (Gray et al., 2019). Wang (2019) points out that lenient punitive measure for committing plagiarism is

another reason for the rampant plagiarism cases in China. From a study conducted in India, online digital resources availability, a lack of understanding about plagiarism and its ramifications, lack of penalty and poor research writing skills are the perceived reasons behind increased plagiarism among students (Kampa et al., 2020; Sharaf & C V, 2021).

### **2.1.1.2 The African Perspective**

According to a study done by Olutola (2014), plagiarism has become the standard among Nigerian undergraduate and postgraduate students since few academicians regard it as a moral or ethical issue. In Nigeria, there are no major institutional policies in place to discourage or detect plagiarism (Onuoha & Ikonne, 2013). Plagiarism in Africa has been mostly attributed to poor skills in writing and research hence researchers engage in unintentional plagiarism (Onuoha & Ikonne, 2013; Thomas, 2004). According to Rogerson (2017), there will continue to be a distinction between paraphrasing and plagiarism. He discovered that some students assume that copying from several sources and then combining them constitutes study rather than plagiarism. According to the findings of another study conducted in Nigeria, some students plagiarize accidentally due to a lack of adequate research abilities (Onuoha & Ikonne, 2013). The majority of students that engage in unintentional plagiarism simply do not comprehend the concept of author recognition or attribution. Such skills include quoting, paraphrasing, citing, referencing, identifying common knowledge and expressing it in their own words.

According to a study conducted by Selemani et al. (2018), in Malawi at Mzuzu University, poor management of time by students is equally a cause for plagiarism. Examples of causes of poor management of time include a commitment to social-cultural and extra-curricular activities, peer pressure for life, socialization, family responsibilities. Silverman (2002) concludes that students' busy lives leave them vulnerable to plagiarism. A study at the University of Botswana by Batane

(2010), on why students plagiarize found that laziness was the main reason. In this situation, students or researchers do not wish to be subjected to any type of academic stress or rigour, preferring instead to obtain inexpensive findings.

Plagiarism thrives in the absence of deterrence. Some students believe that the benefits of plagiarizing outweigh the hazards, especially if they believe there is little or no risk of being found and little or no punishment if caught (Davis & Ludvigson, 1995). A study at the University of Cape Town (UCT), in South Africa, by de Jager and Brown (2010), indicated that minimal reporting incidences and unclear plagiarism policies fuel plagiarism. Plagiarism has caused a major challenge in the Ugandan learning system. A study conducted on SWOT analysis of blended learning in public universities in Uganda, with a case study of Muni University by Guma et al., (2019), shows that the institution lacks a plagiarism detecting tool, to enable the faculty to check the quality and authenticity of students' work. Hence, due to a lack of detecting tools, students keep plagiarizing with the mindset that they will not be caught.

The existing plagiarism policies have not been actively implemented at Makerere University (Uganda) and the University of Rwanda (Rwanda). Also, the emergence of ICT technologies at these two universities has contributed to the increased rate of plagiarism among journalism students, as they lift information from Google through copy and paste without paraphrasing nor attribution (Jjuuko, 2017). From the findings in a study conducted at the University of Dar es Salaam (UDSM), Tanzania, concerning the control of plagiarism, results indicated the lack of awareness on issues pertaining to plagiarism as a reason for plagiarism. This affects both the academic staff and the students (Mbilinyi & Msuya, 2018). A separate study on Tanzanian higher learning institutions, involving two universities, a private one and a public one as cases was conducted by Anney and Mosha (2015). The study indicated that despite the two universities

having policies and an ethics honour code, they do not employ the plagiarism detector on students' research works. The students plagiarize intentionally as most of them are aware of the plagiarism policies.

In Kenya for example, students see no reason not to plagiarize, while others do it due to social pressure (Starovoytova & Namango, 2016). This is because either shortcuts make them feel good or because they think, they are clever and acceptable. Because they have a bad attitude toward assignments and responsibilities, some students plagiarize (Jereb et al., 2018). A survey conducted on first-year students at the Catholic University of Eastern Africa (CUEA) resulted in a majority of the students not being aware of intellectual property rights. They also exhibited little knowledge of information search skills, which is a reason for committing plagiarism (Kimani & Onyancha, 2015).

### **2.1.2 Typology of Reasons When Students Plagiarize**

Table 2.1 shows a typology of reasons when students plagiarize

**Table 2.1: Typology of Reasons when Students Plagiarize**

<b>Reason highlighted as a cause of plagiarism</b>	<b>Author + Year</b>	<b>Title of study</b>
Social pressure	1. Starovoytova, D., and Namango, S. S. (2016)	1. Viewpoint of Undergraduate Engineering Students on Plagiarism
Lack of research skills	Onuoha, U., and Ikonne, C. (2013)	Dealing with the plague of plagiarism in Nigeria
Efficiency gain	1. Whiteman and Gordon, 2001) 2. Auer and Krupar (2001)	1. The price of an A: an educator's responsibility to academic honesty 2. Mouse click plagiarism: the role of technology in plagiarism and the librarian's role in combating it
Poor time management	1. Selemanni et al., (2018) 2. Silverman (2002)	1. Why do postgraduate students commit plagiarism? An empirical study. 2. It's a bird, it's a plane, it's Plagiarism Buster!
Laziness	Batane, T. (2010)	Turning to Turnitin to prevent plagiarism among university students
Lack of deterrence	1. Davis, S.F. and Ludvigson, H. W. (1995) 2. de Jager, K., and Brown, C. (2010) 3. Bahadori et al., (2012)	1. Additional data on academic dishonesty and a proposal for remediation 2. The tangled web: investigating academics' views of plagiarism at the University of Cape Town 3. Plagiarism: Concepts, factors and solutions
Denial or neutralization	Bahadori et al., (2012)	Plagiarism: Concepts, factors and solutions

## **2.2 Influence of the Internet on Plagiarism**

The usage of the internet on college campuses and online education has a long history dating back to the early 1990s (Halbert, 1990). One of the first university-sponsored techniques of accessing the World Wide Web was the Gopher browser, which was released in 1991 (Ison, 2015). From 1993 forward, the Internet has been considered more frequently as a potential source of plagiarism (Berge & Collins, 1994; Scott et al., 1994). Students used to have to go to libraries, collect information, and retype it, but this procedure has altered with the rapid advancement of the Internet, and most academics believe that computers have made it simpler to cheat and plagiarize (Bahadori et al., 2012). The use of online sourcing for academic activities has grown in tandem with the growth of the Internet, from the expansion of online institutions and programs to the usage of online databases and websites for references in papers, theses, and dissertations (Eret & Ok, 2014; Ison, 2015; Li, 2013).

In the current generation, most students have digital and mobile devices which they use daily to access resources on websites and electronic databases (Mitrea, 2019). Additionally, some institutions provide personal laptops and computers within the laboratories for students' use. Hence, free availability of the internet, specifically WI-FI, and other alternative connectivity means for students contributes to raising plagiarism. The Internet has shaped the way students misunderstand notions of authorship, originality and proper information use thus raising expectations of quick solutions (Chankova, 2017). The effortless process of copy and pasting sources from the internet enhances plagiarism and the fact that most students believe that resources in the public domain lack ownership. By so doing, the technology eliminates the ability and opportunity to reflect during the writing process due to the speed factor (Auer & Krupar, 2001).

The University of Lleida (UdL) surveyed 1150 first-year students using an online questionnaire. The results reveal that people have comparable knowledge of plagiarism when it comes to two procedures: copy and paste (69.3%) and paraphrase (68.3%), as fuelled by the internet (Olivia-Dumitrina et al., 2019). At the South-West University, Department of Germanic and Romanic Studies, Blagoevgrad, in Bulgaria, the majority of the third year students linked poor writing skills and lack of paraphrasing techniques to internet plagiarism (Chankova, 2017).

The internet both increases and averts plagiarism in different ways. This is according to the findings of the University of Zululand (UNIZULU), study, in South Africa, on the Open Access (OA) concept in higher education. The findings showed that Open Access resources make it easier to plagiarize due to their freely available and accessible nature on the internet through mostly copy and paste by the students. On the other hand, it is easier to detect plagiarism if the information has been lifted from online resources using search engines and plagiarism detection software (Ocholla & Ocholla, 2016).

The findings of research among three universities in Tanzania indicates that the majority of the students engage in plagiarism through the internet, by submitting other people's works downloaded from the internet and by copy-pasting (Kipapy et al., 2018). University lecturers and other stakeholders need to be informed about the contemporary challenges that are associated with internet use. It is suggested that they should also teach students the positive use of devices while they are on the internet (Kipapy et al., 2018). The expansion and apparent profitability of electronic paper mills that rely on selling prefabricated as well as custom-written assignments online, however, is proof of an increase in internet-facilitated plagiarism. Paper mills, in which students pay for or commission a paper produced by someone else, appear to be growing in popularity, aided by the internet (Hodgkinson et al., 2016).

On the other hand, as much as the internet has accelerated plagiarism, it has equally made the detection of plagiarism easier. This makes it work like a double-edged sword. The detection is enabled through the various available search engines using software such as CopyScape, Turnitin, Urkund/Ouriginal, Moss, Decoloc, Eve2, Glatt, WordCHECK, EduTic, among others (Bailey, 2017). Turnitin is a web-based application that allows academic researchers, faculty members, and/or librarians to check papers for information that has been copied from another source, most notably the internet (Liddell, 2003). In addition to this, plagiarism detection can also be conducted through three other methods. The first is a general sight overview, in which a faculty member (academic research supervisor) evaluates the sentence structure, syntax, idioms, and general content utilized in the students' academic research projects. He or she should look at the task that is lower or higher than the student's ability can handle and make a decision based on that. The second step entails looking for internet bookstores. These databases assist research supervisors in determining whether students provided accurate publication dates, whether the sources used were acceptable for the subject at hand, and, finally, through keyword searches. Searching for keywords in search engines is another technique in academics' arsenal for detecting plagiarism, and modern search technology allows us to scan a whole text or phrase on the internet (Bahadori et al., 2012).

### **2.3 Challenges Faced in Combating Plagiarism among Research Students**

Plagiarism is not just a problem for students' grades. It is a sign of a profoundly entrenched academic culture that, according to some, prioritizes concrete rewards (grades, degrees, publications, promotions, and grants) over the fundamental worth of learning and knowledge development. According to Bretag (2013), educational institutions must seek to establish a culture of integrity that extends beyond deterrence, detection, and punishment of students to solve the

persistent issue of plagiarism and other breaches of academic integrity. Some institutions in China lack plagiarism policies that give an educative approach to plagiarism besides the moralistic nature that is offered in the policy. As a result, the latter does not contribute much to building the students' academic literacy skills. This was found out in a study on eight universities in China (Hu & Sun, 2017).

After a case study at the Enugu State University of Science and Technology, Nigeria, it was concluded that one of the challenges faced in combating plagiarism by the stakeholders is the lack of a properly structured policy in the same. The plagiarism policy in place lacked a corrective measure, instead, it focused on the punitive measures which wasn't a preference for the students within that institution (Ibegbulam & Eze, 2015).

Inadequate facilities and research materials are highlighted as one of the main challenges in preventing plagiarism (Too, 2014). This was from a study undertaken from the Nairobi campus of Moi University, in Kenya, on plagiarism among postgraduate students. Another study by Chepchirchir et al., (2020) points out several factors posing a great challenge on the prevention against plagiarism by librarians. This is after a study on issues related to Intellectual property rights in digital libraries, with a case study on academic libraries in Kenya. From the findings, the presence of works without authors (orphaned works) on the internet and insufficient anti-plagiarism checker software in institutions of higher learning are a challenge to the prevention of plagiarism. According to Michalak et al. (2018), there is no statutory need that teachers devote classroom time to Information Literacy (IL) instruction, nor that a librarian participate in its preparation or delivery at most institutions of higher learning. Faculty are often the gatekeepers to their classrooms, thus their impressions and attitudes toward academic librarians and library instruction are crucial to the success of IL programs. However, librarians have the chance to work

with teachers to build new information literacy and plagiarism-deterrent resources. There is also the need to find out strategies to overcoming these challenges.

### **2.3.1 Institutional Policies on Plagiarism**

Academic integrity or misconduct policy at the university establishes the standards that all stakeholders must follow, as well as the procedures for reporting, investigating, and punishing violations (Gullifer & Tyson, 2014). Students are less likely to engage in plagiarism dishonesty when the university conveys these academic standards on plagiarism. This is in contrast to when the university fails to communicate its policies to these students, leading them to believe that no such regulation exists and, as a result, engaging in academic dishonesty (Too, 2014). In a research performed by Gullifer and Tyson (2014), all domestic students enrolled at an Australian university were emailed an invitation to complete a survey measuring students' comprehension of the institutional policy on academic integrity. Only half of the participants had read the plagiarism policy, and there was some disagreement about whether behaviour constitutes plagiarism, according to the data.

Responses from formal universities vary greatly. "Many institutions had policies and procedures in place for dealing with plagiarism at the institutional or department level," a survey of Higher Education Institutions (HEIs) in 27 European countries concluded, "but well-informed participants in each country confirmed that not all of these policies were applied consistently." The findings confirmed this to be true, with policies and systems that have been poorly defined (Glendinning, 2014, p.16; Hodgkinson et al., 2016). It is confirmed that not all these policies were enforced or consistently applied. Policy and other responses to the issue focus on punitive, rather than on educative, measures, but recently, a subtle shift is noticeable. As well as ensuring, appropriate consequences for plagiarists. Several universities, according to Devlin (2006), are beginning to

formalize the incorporation of learning and teaching tactics in anti-plagiarism-related policy and practice, as well as paying closer attention to the communication of unambiguous definitions of plagiarism.

### **2.3.2 Punishment/Penalties for Plagiarism**

To develop and enforce plagiarism penalties, it is necessary to first define what constitutes plagiarism from a technical aspect. According to Macdonald and Carroll (2006), the characterization of plagiarism should involve an examination and record of how it was identified and assessed, as well as the level to which it was committed in terms of the plagiarized written work. Second, the level of an individual learner, whether he or she is a novice or an accomplished student, should be taken into account. The student's awareness of institutional regulations and norms must also be examined (Berlinck, 2011). The institution's disciplinary standards must also be adhered to.

The penalties resulting from sanctions may vary in nature. They can go from allocating a 0 (zero) score on the appropriated work, disappointment in courses if the researcher has over and again counterfeited in a few events, suspension from studies for a specific period, re-accommodation of another review, notice, public conciliatory sentiment, to exemption from graduation (Berlinck, 2011). It all results in deep frustration to the individual who commits it.

When plagiarism is established, another case highlighted by Deubel (2018) shows that revoking a degree is not always a deterrence. This should go deeper into the legal issues that surround the policies to be followed on the accusations of plagiarism and revoking of the degrees.

## **2.4 Plagiarism Prevention**

For successful plagiarism prevention, an institution needs to come up with a well-structured and clear approach, alongside a high level of cooperation among the stakeholders who have been mandated to take the responsibility (Brown & Janssen, 2017). This will involve information literacy by teaching the students on citation styles and referencing. They include the American Psychological Association (APA) style, Modern Language Association (MLA) style, Chicago Style, Turabian Style, and the International Organization for Standardization 690 (ISO) Style. Each citation style has its own rules. In addition to the citation styles, there are the citation methods, which include: citations in the text, page footnote citations, bibliographic references, web publications, online video, among others (Ioan, 2019). The use of citation software makes it much easier and solves the mental challenge of researchers (Soltany et al., 2018).

Institutionalization of ethics when conducting research is a strategy for plagiarism prevention. This is done through educational interventions using workshops and seminars on ethical behaviour, motivation and interventions for plagiarists (Soltany et al., 2018). Brown and Janssen (2017) recommend the introduction of integrity codes, also known as academic honour codes, to institutions. Some approaches and procedures apply to several sorts of wrongdoing, and university administrators are frequently held accountable in this regard. There are also defined rules, regulations, and procedures in place to deal with wrongdoing (Hodgkinson et al., 2016). As the case of Harvard students, students may be asked to sign a pledge to not plagiarize, or compose their own statements of commitment to non-plagiarism.

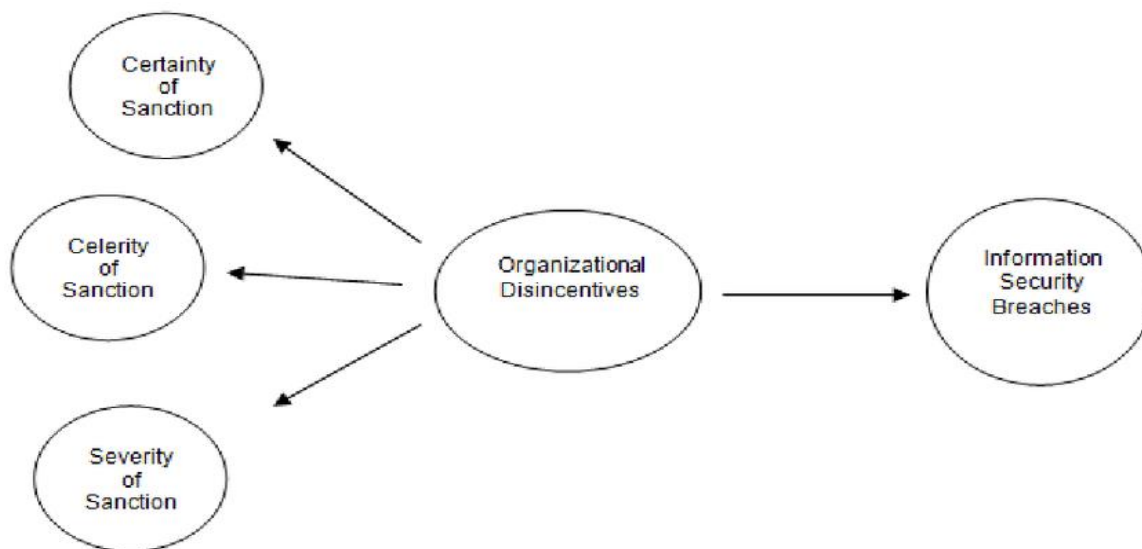
The implementation of the Research Development Environment (RDE) software, a recent development that enables, organizes, speeds, and monitors the research and writing process, as well as provides a better communication medium between colleagues or lecturers and students could also aid in plagiarism prevention. This includes works of any format (Beasley, 2004). RDE

is still penetrating more in higher learning institutions but is already actively applied in the United States, and can be used to prevent or reduce plagiarism, as well as to fill in gaps in current methodologies. Examples of the RDE software include Robox R3, Ladder, Object Block Languages, among others, and they help in editing structured text in various ways based on the software type. Lecturers ought to create unique and challenging assignments and approve unique research topics, which will demand academic researchers' critical thinking and creativity. Students and generally researchers easily plagiarize when the topics being dealt with are familiar and require standard formats. If the topics require a keen interpretation, discussion and analysis using different types of evidence and taking a fair approach on an issue, then it would be more averse to copy (Krishnamurthy, 2017).

## 2.5 Theoretical Framework

The General Deterrence Theory (GDT) is adopted for this study. Figure 2.1 is a model of this theory.

### 2.5.1 The General Deterrence Theory



**Figure 2.1: General Deterrence Theory Model**

*Source: (Kuhn et al., 2014)*

Deterrence is defined as the inhibition or discouragement of an event or an action through instilling fear of punishment or consequences (Elliot, 2003). The deterrence theory assumes that criminals weigh the benefits of offending against the pain they would experience if they are detected. Two men are considered as founding fathers of classical criminology for their separate theories of general deterrence. Cesare Beccaria (1738–1794), an Italian criminologist, and Jeremy Bentham, a British philosopher, are the first and second (1748 to 1832). Modern deterrence theories are based on traditional criminological theory, which is mostly drawn from Cesare Beccaria, an Italian economist and philosopher, who wrote an article on crimes and punishments in 1764 (Tomlinson, 2016). The criminological theory is a security theory that mainly focuses on physical and environmental security alongside other theories such as situational crime prevention theory. On the other hand, the General Deterrence Theory focuses on the countermeasure activities and their general effects on plagiarism as a form of academic dishonesty (Alanezi & Brooks, 2014).

The GDT has three perceptions. Perceptions of penalty certainty, severity, and celerity are the three key threat perceptions that influence whether an individual would participate in deviant behaviour. All threat perceptions are influenced by direct and indirect punishment and punishment avoidance experiences. Perceptions of certainty refer to beliefs about the possibility of being caught and punished for a deviant act, severity refers to beliefs concerning the degree of punishment, and celerity refers to beliefs about the imminence of punishment (Ogilvie & Stewart, 2010). The first is perceptual, in which threatened or actual punishment, as well as other events and experiences, influence an individual's perceptions of the costs and benefits of engaging in deviant behaviour; the second is behavioural, in which an individual's perceptions of punishment influence their behaviour (Pogarsky et al., 2004).

### **2.5.2 Relevance of the Deterrence Theory**

This theory is relevant to the study as it helps prevent future plagiarism activity by virtue of the punishments or consequences faced by a plagiarist. Through its components of deterrence, prevention, detection and remedy, the proposed framework for harmonization of the role of librarians and faculty was developed. Deterrence activities such as awareness creation are necessary for facilitating prevention activities too thus making the theory relevant to the study. Coming up with plagiarism policies and ways of reducing plagiarism in the research systems will be of assistance to the researchers' behaviour. Institutions can also adopt this theory's aspects of setting strict, non-lenient and heavy punishments in place for plagiarists to discourage the researchers from plagiarizing. This enforces information security and proper acknowledgement of authorship works (Trang & Brendel, 2019).

However, the GDT faces some criticism in that despite significant progress, early perceptual investigations of broad deterrence have a common flaw. The most commonly utilized cross-sectional research designs are those in which prior criminal activity is linked to current attitudes of punishment. Because perceptions are measured after legal infractions have occurred, this approach contradicts the logical temporal order predicted by most general deterrence theories. As many critics have pointed out, the link could indicate that those who have been actively involved in crime in the past have lower views of certainty and severity in the present because they have missed being discovered and punished. The "experiential effect" has been coined to describe this phenomenon (Williams & Hawkins, 1986).

## **2.6 Research Gaps**

The reviewed literature in this study has more focus on the causes of plagiarism, student perceptions, plagiarism detection, plagiarism institutional policies, penalties, and a few preventive mechanisms. However, the reviewed literature does not clearly state the nature and extent of plagiarism among students in the field of academic research. In addition to the reviewed literature, the causes for the various specific forms of plagiarism have not been addressed besides the general causes. Lastly, the researcher did not come across a single publication that clearly outlines the integrated or harmonized role of librarians and faculty in plagiarism prevention among students. This is clear from the table on the typology of when students plagiarize and the corresponding studies done. Hence, these are some of the gaps that motivated this study. The next chapter presents the methodology for this study.

## **2.7 Chapter Summary**

This chapter discussed the literature, the empirical studies undertaken in relation to the research objectives and the theoretical framework. The General Deterrence Theory has been discussed in this chapter and how it applies to the study in the context of information use.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter covers the research methodology that was used for the study. It includes the philosophical worldview, research design, research approach, population, sampling procedures and methods, research instruments, data collection and management, data analysis, validity and reliability, and ethical considerations.

#### **3.1 Philosophical Worldview**

This study applied the pragmatic philosophical worldview, which focuses on what works and the solutions to a problem. Much emphasis is on the research problem and question and the researcher uses all possible approaches to understand the problem. Less focus is on the methods. The pragmatic philosophical worldview arises out of actions, situations, and consequences rather than antecedent conditions (Creswell, 2018). The researcher therefore focused on the problem of plagiarism and aimed at finding possible solutions to it.

#### **3.2 Research Design**

This study applied the case study research design. In this case of a mixed methods case study research design, the researchers gather both types of data concurrently in a convergent core design, and the results are merged together to examine a case. (Creswell, 2018). A case study increases analytical thinking, communication, and the researcher's ability to tolerate multiple points of view on the same issue. It gives individuals the ability to defend their own point of view with logic and improves teamwork, making them more effective over time. When participants confront similar challenges at work, a case study serves as a handy reference point.

### **3.3 Research Approach**

This study adopted a convergent parallel mixed methods research approach. The convergent parallel mixed methods research approach is a single-phase approach in which the researcher collected both the qualitative and quantitative data concurrently and analysed them separately (Creswell & Creswell, 2018). Convergent parallel mixed methods research approach was the most suited for this study because it helped the researcher collect both qualitative and quantitative data analyse each data type independently and interpret the results together. By collecting both types of data, the researcher acquired rich and comprehensive data, and the strength of each can offset the weaknesses of the other (Creswell, 2018; Prevention & Chronic Care Program, 2013).

### **3.4 Study Site**

This study was conducted at Strathmore University, in Madaraka Estate, along Ole Sangale Road, Nairobi, Kenya.

### **3.5 Target Population**

The study population is the group of people to whom researchers can apply their findings. This demographic, also known as the accessible population is a subset of the target population. Researchers draw their samples from the study population (Pandey & Pandey, 2015).

The population of this study included the following. First, the 2019-2020 fourth-year undergraduates at the Strathmore Institute of Mathematical Sciences (SIMS), Faculty of Information Technology (FIT) and Strathmore Law School (SLS) faculties. Second-year, postgraduate students at Strathmore University School of Graduate Studies (SUSGS). Third, faculty members from the three faculties and SUSGS. Fourth, the Directors of Research and Innovation of the three faculties. Fifth, the SU library staff. Table 3.1 presents the breakdown of the study population.

**Table 3.1: Target Population**

The table below indicates the details for the target population.

<b>Category</b>	<b>Faculty</b>	<b>Total population</b>
	SIMS	140
4 <sup>th</sup> year students	SLS	60
	FIT	130
2 <sup>ND</sup> year Graduate students	School of Graduate Studies	120
Faculty members	Lecturers	10
	SLS	1
Directors for Research & Innovation	SIMS	1
	FIT	1
Librarians		9
<b>Total</b>		<b>472</b>

### **3.6 Sampling Techniques**

Sampling determines the accuracy of one's research results (Singh, 2018). A sampling technique is a set of instructions for extracting a sample from a specific population. Samples are always taken from the population and can be used to extrapolate the study's findings to the entire population (Kothari, 2004). This study applied three sampling techniques namely purposive sampling, simple random sampling, and census sampling techniques, which are discussed next. The faculty members (lecturers) sample was calculated based on Creswell's principle of the sample size being at least 10% of the target population (Creswell, 2018).

### **3.6.1 Purposive Sampling Technique**

Purposive sampling (also known as judgment, selective, or subjective sampling) is a sampling approach in which the researcher chooses members of the population to participate in the study based on his or her judgment (Creswell & Creswell, 2018). It is a non-probability sampling method and it occurs when elements selected for the sample are chosen by the judgment of the researcher. Purposive sampling is advantageous as the study population is of common interest.

To select the population the researcher first applied purposive sampling to select both the faculties and students that were to participate. The criteria for selection were, first because of their consistency in the submission of students' research projects to the SU library for archival in the institutional repository. The researcher had to crosscheck with the library team on which faculties consistently submit their final academic research works. Second, because they all have undergraduate and postgraduate students who will be submitting their research reports for archival in the SU institutional repository, as they work on their final year academic research work at this stage. The three faculties are SIMS, SLS, and FIT. The students include undergraduate 4<sup>th</sup> year students and post-graduate 2<sup>nd</sup> year students.

Purposive sampling was also used to select the Directors of Research and Innovation. The selection criteria were because, in the whole of the SU administrative team, the DR and I play a key role in the decision making of the policies governing research issues. The other reason for the selection of the three specific directors out of the directors for the seven faculties is that the Directors of Research and Innovation for the three faculties (SIMS, SLS and FIT) have been in close contact with the librarians over the research submission and archival processes and at the time of this study.

### **3.6.2 Simple Random Sampling Technique**

After purposive sampling, the researcher then applied simple random sampling technique for the selection of the student sample (4<sup>th</sup> year undergraduate – SIMS, SLS, FIT and 2<sup>nd</sup> year postgraduate students). The sample size for students was determined using simple random sampling technique. The researcher developed a sampling frame from the departments and randomly assigned those numbers 1 to the last of them using the RAND command in Ms Excel. Through this process 46 respondents for 4<sup>th</sup> year SIMS, 32 for SLS, 45 for FIT and 44 for the postgraduate students. This was the most preferred technique for selecting manageable sample sizes from an existing large population. It doesn't need any technical knowledge of the subject under study beforehand, and it helps to reduce any bias involved (Bhat, 2018). The student and faculty sample size was calculated using the Qualtrics sample size calculator, a reliable scientific online tool (Qualtrics, 2020). The confidence level is 90% and the margin of error is 10%.

### **3.6.3 Census**

Census was used for the entire population of librarians since all the nine librarians are involved in conducting Information Literacy and archiving resources to the Institutional Repository on a rotational basis. The librarians were also considered because they are all involved in archiving research output to the IR on a rotational basis.

### 3.7 Sample size

The total sample size for the whole study summed up to 189 respondents, as indicated in Table 3.2.

**Table 3.2: Sample size**

Category	Faculty	Total population	Sample size
4 <sup>th</sup> year students	SIMS	140	46
	SLS	60	32
	FIT	130	45
2 <sup>nd</sup> year Graduate students	School of Graduate Studies	120	44
Faculty members	Lecturers	107	10
Administrators	Director for Research & Innovation -	1	1
	SIMS	1	1
	SLS	1	1
	FIT		
SU Librarians		9	9
<b>Total</b>		<b>472</b>	<b>189</b>

### 3.8 Data Collection Techniques and Tools

The data collection techniques used included questionnaires and interviews as discussed. Data collection tools are also referred to as data collection instruments. They are the means through which the proposal developer uses to collect detailed information from the respondents (Creswell & Creswell, 2018). The data collection tools included interview schedules to be administered to

the librarians, and categorical questionnaires, which were administered to all the selected students, lecturers and Directors of Research and Innovation.

### **3.8.1 Questionnaires**

A questionnaire is a way of gathering information about respondents by asking them questions rather than watching and sampling their behaviour. Its goal is to gather information about the ideas, attitudes, and behaviour of diverse study participants to meet the study's objectives. When creating a questionnaire, the questions are reviewed for clarity, order, simplicity, and bias avoidance. Closed-ended questionnaires with a few open-ended questions were distributed to the students and the lecturers and administrative staff to yield quantitative data, the questionnaires were administered to a total of 180 respondents via google forms. Closed-ended questionnaires are meant to yield quantitative data in this case. Questionnaires have the advantage of being able to collect information from a large number of people in a short amount of time (Bryman, 2016). On the other hand, questionnaires lack personal contact with the respondents especially when they may need to seek some clarification over the questions, this may lead to inappropriate responses or questions left blank. Online questionnaires get lower responses too (Choudhury, 2015).

### **3.8.2 Interviews**

Face-to-face interviews with library employees were utilized to obtain data using semi-structured interview schedules. This tool consisted of a series of essential questions that helped define the topics that were investigated while also allowing the interviewer or interviewee to deviate to follow an idea or response in greater depth (Gill et al., 2008). The advantage of a semi-structured interview is that it contains both open-ended and closed-ended questions, thus in-depth information is gathered (Creswell & Creswell, 2018). The data yielded, in this case, was qualitative data. Alshenqeeti (2014) argues that interviews can be very time consuming and such an effortful process with analysis and transcription of data.

## **3.9 Data collection procedure**

For effective data collection, the researcher presented the proposal to the School of Graduate and Advanced Studies (SGAS) and sought to be cleared to collect data. SGAS wrote a letter to the

National Commission for Science, Technology and Innovation (NACOSTI) for a research permit. Then the student went to the Strathmore University ethical clearance body for ethics clearance and on approval proceeded to the field for data collection.

### **3.10 Piloting**

A pilot study is necessary for the pretesting of the data collection tools or instruments. Piloting enables the researcher to analyse if the methods of analysis are appropriate. It is also referred to as field – testing and the results help to improve the questions, format and scales of the questions (Mugenda & Mugenda, 2003). The researcher conducted a pilot study on five of the intern librarians and 10 third-year students from the selected three faculties (SIMS, SLS, FIT), at Strathmore University, and amendments were made based on the recommendations. The participants in the pilot study were not part of the respondents for the actual study.

### **3.11 Data Analysis Techniques**

The qualitative data was transcribed, coded and analysed using ATLAS.ti Qualitative Data Analysis software. Themes emerging from the study were used in the coding and analysis. The data was displayed using ATLAS.ti generated network views illustrating code relation in the various themes. The data was therefore presented according to the themes derived from the objectives. The quantitative data was analysed using SPSS software, a quantitative data analysis software and presented using descriptive statistical tools such as charts, graphs and tables (Bryman, 2016).

### **3.12 Data Presentation**

The quantitative data has been presented using descriptive statistical tools such as graphs and tables, while the qualitative data presented through ATLAS.ti generated thematic networks.

### **3.13 Validity and Reliability**

Validity is the degree to which an idea is accurately measured in a research study, whereas reliability refers to the accuracy of the research tools (Heale & Twycross, 2015). Validity and reliability are attained through verification. Checking, verifying, assuring, and being certain are all terms used to describe the process of verification (Morse et al., 2002). In this research study, the verification strategies for ensuring validity and reliability of the study according to Morse et al., (2002) involved ensuring appropriateness in the sample who will take part in the study. These respondents had relevant knowledge of the area of interest of the study. Secondly, the congruence between the research questions and the components of the methods that were to be used were also be considered for methodological coherence purposes (Bryman, 2016). Thirdly, the researcher used ATLAS.ti and SPSS software for concurrent collection of data and analysis.

### **3.14 Ethical Considerations**

Confidentiality and privacy - the researcher had to protect the respondents by keeping the information provided confidential, more so if confidentiality has been promised. Failure to do this may cause the respondents either psychological or physical harm. For instance, revealing the names of the respondents who have engaged in plagiarism may cause them to lose their reputation or even stigmatize them.

Anonymity is also an important ethical consideration in research; the researcher protected the identity of the respondents' using numbers since most respondents tend to be uncomfortable having their names in the data collection tools and in cases where very sensitive information has been shared. Anonymity helps in getting as much information as the respondents will give out

information freely without any fear (Kaiser, 2009). All information gathered about respondents throughout the research is kept very confidential, and respondents' identities are kept anonymous. The study team and other third parties may be able to reuse the data acquired if it is anonymized. Individuals will not be able to be identified using this anonymized data.

Before the actual study, the researcher sought approvals from the concerned parties that gave consent to the study. This is voluntary and informed consent, that allowed the respondents to participate willingly and the researcher had their permission in advance from the respondents and the relevant organizations. The respondents had the consent forms administered alongside the questionnaires through Google forms, and this was via group emails in accordance with the selected faculties. The librarians also had the consent forms printed and distributed to them in advance before the face-to-face interviews. The researcher approached the faculty administrators who directed and helped her in identifying the specific respondents. She also worked with research assistants in this and got out of her way to talk to the students after their classes after liaising with the lecturers.

There were very low or no risks attached to taking part in this study due to the privacy, confidentiality and anonymity aspects that were put in place. The results of the study are beneficial to the librarians, faculty and administrators in both minimizing plagiarism and making policy.

### **3.15 Chapter Summary**

This chapter discussed the methodology that was applied in undertaking the study on the role of librarians and faculty in preventing plagiarism among students at SU. It highlighted the complexities in a parallel mixed methods research design and the need for clarity in identifying the population and sample. The next chapter will be a presentation of the data and its analysis.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND PRESENTATION**

#### **4.0 Introduction**

This chapter focuses on data analysis and presentation. It will present some challenges experienced, response rate and demographic data, followed by quantitative and qualitative data for each research objective where applicable.

#### **4.1 Challenges Encountered During Data Collection Process**

There were few major challenges experienced in the data collection process. Authorization to collect data was one main challenge. The process of obtaining a research license permit from NACOSTI, and the ethical clearance at SU took long. The researcher eventually got an approval from the SU ethical review team, causing a delay of over three months before commencing on the data collection process. The delay was due to the verification processes on the research topic in relation to the study and later approved.

#### **4.2 Response Rate**

From table 4.1, 167 questionnaires were sent out to students. The returned questionnaires were 66 translating to 40%. Ten lecturers were targeted; five filled and returned the questionnaires translating to 50%. The three-targeted administrators all filled and returned their questionnaires translating to a 100% response rate. The qualitative data targeted nine librarians, of whom eight were available for interviews, hence 87% responses.

**Table 4.1: Response rate**

<b>Category</b>	<b>Total Sample size</b>	<b>Response</b>	<b>Percentage</b>	<b>Not responded</b>	<b>Percentage</b>	<b>Total percentage</b>
Students	167	66	40%	101	60%	100%
Faculty	10	5	50%	5	50%	100%
Administrators	3	3	100%	0	0%	100%
Librarians	9	8	89%	1	11%	100%

#### **4.2.1 Demographic Characteristics of the Respondents**

From table 4.2, in terms of the demographical representation, among the students' responses, 19 were male while 47 were female. There were four males and one female faculty member. All three administrators were female. Lastly, there were six male and two female librarians who were interviewed. The demographic characteristics data is important in this study as it shows who the participants were (male versus female). The researcher opted to conduct the study on both gender to avoid bias, unlike a different researcher would have opted for plagiarism among male or female students.

**Table 4.2: Demographic characteristics of the respondents**

<b>Respondents</b>	<b>Response Rate</b>	<b>Percentage of total no. of respondents (%)</b>	<b>Male (M)</b>	<b>Female (F)</b>
Students	66	80	19	47
Faculty	5	6	4	1
Administrators	3	4	0	3
Librarians	8	10	6	2
<b>Total</b>	<b>82</b>	<b>100</b>	<b>29</b>	<b>53</b>

#### **4.2.3 Respondents' Working Experience**

Table 4.3 presents data on respondents working experience.

Data on the years of working experience (table 4.3) indicates that: three respondents (1 librarian, 1 faculty member and 1 administrator) have worked in the institution for over 10 years; five respondents (2 librarians, 1 faculty member and 2 administrators) 6 – 10 years and eight (five librarians and three faculty members) between 1 – 5 years. Data on the years of working experience indicates that: three respondents (1 librarian, 1 faculty member and 1 administrator), have worked in the institution for over 10 years; five respondents (2 librarians, 1 faculty member and 2 administrators) 6 – 10 years and eight (five librarians and three faculty members) between 1 – 5 years.

**Table 4.3: Respondents' Working Experience**

<b>Period (years)</b>	<b>Faculty members</b>	<b>Administrators</b>	<b>Librarians</b>	<b>Total</b>
Over 10	1	1	1	3
6 - 10	1	2	2	5
1 - 5	3	-	5	8
<b>Total</b>	<b>5</b>	<b>3</b>	<b>8</b>	<b>16</b>

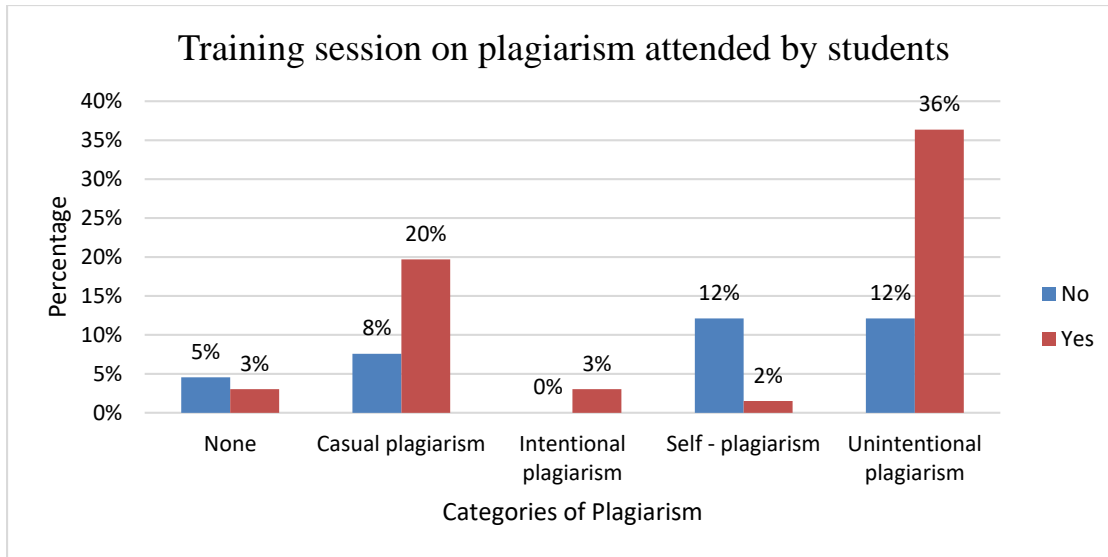
### **4.3 Nature and Extent of Plagiarism at SU**

On the first objective, this section includes both qualitative and quantitative data. The data reveals students', faculty's, administrators', and librarians' perspectives on the nature and extent of plagiarism at SU.

#### **4.3.1 Students 'Response to the Nature and Extent of Plagiarism at SU**

##### **4.3.1.1 Plagiarism Session Attendance**

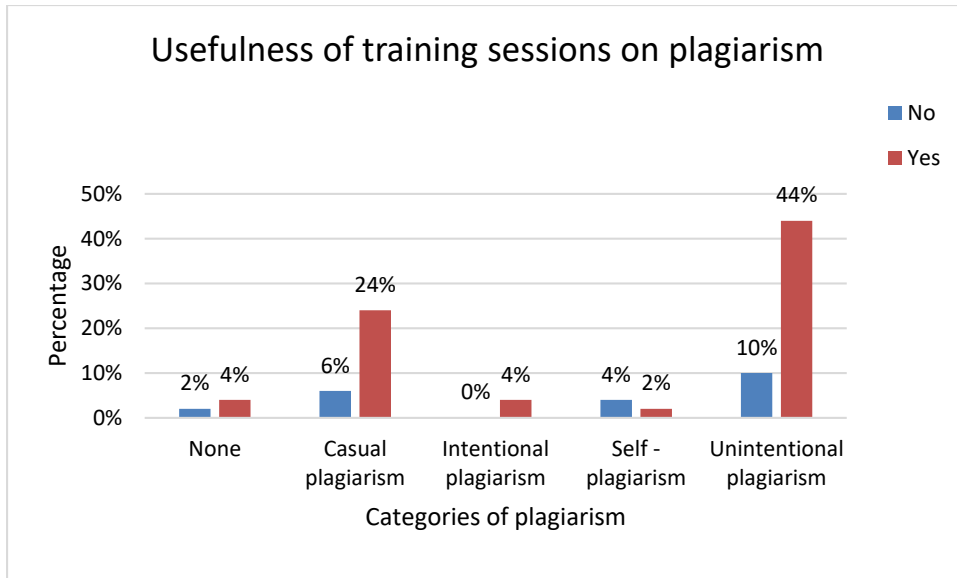
The statement required the students to indicate (Yes or No) if they had any of the identified training sessions on plagiarism when they joined SU. The data on these responses is given in Figure 4.1, which indicates that the majority 24 (36%) of the students attended the session on unintentional plagiarism, followed by casual plagiarism 13 (20%), then intentional plagiarism 2 (3%) and the least attendance was for self-plagiarism 1 (2%). Those who failed to attend any of these training sessions on categories of plagiarism had 2 (3%). The data also shows that the sessions that were not attended by most of the students were unintentional plagiarism 8 (12%), self-plagiarism 8 (12%), then casual plagiarism 5 (8%), intentional plagiarism 0 (0%) and none 3 (5%).



**Figure 4.1: Training Session on Plagiarism Attended by Students**

#### **4.3.1.2 The usefulness of the Training Sessions on Plagiarism**

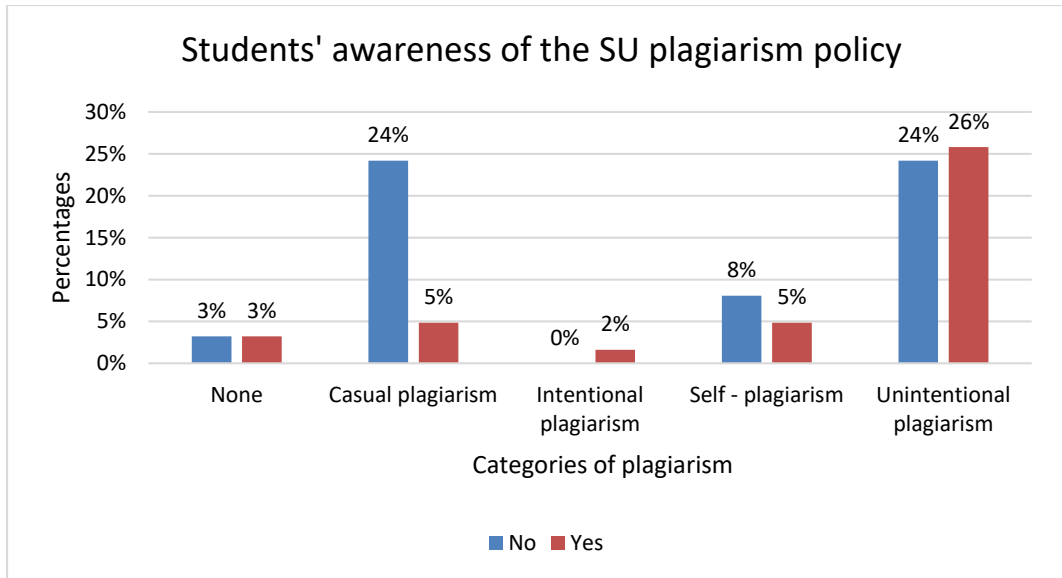
The students were asked to indicate the usefulness of the four types of plagiarism sessions offered to them. Figure 4.2 presents data on their responses. It indicates that the most useful session was ‘unintentional plagiarism’ 29 (44%), followed by ‘casual plagiarism’ 15 (24%), then ‘intentional plagiarism’ 3 (4%), and the least was ‘self-plagiarism’ 3 (2%). The data also indicates that the least useful session was ‘unintentional plagiarism’ 7 (10%), followed by ‘casual plagiarism’ 4 (6%), then ‘self-plagiarism’ 3 (4%) and lastly ‘intentional plagiarism’ 0 (0%). For the students who attended none of the sessions, 3 (4%) found it useful while one (2%) did not.



**Figure 4.2: Usefulness of the Plagiarism Session**

#### **4.3.1.3 Students' Awareness of the SU Plagiarism Policy**

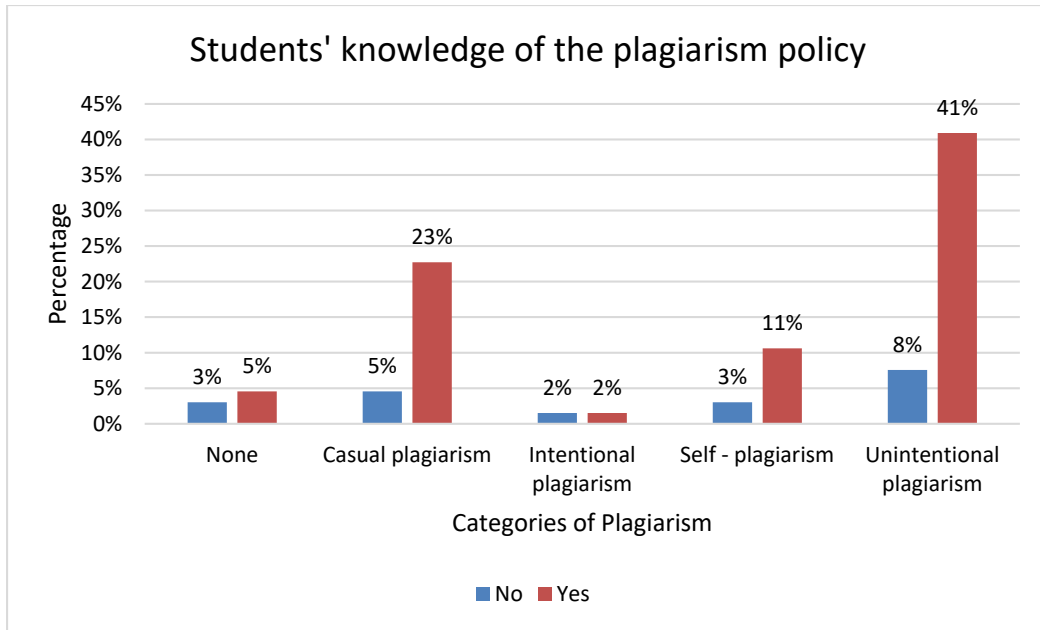
The students were asked to state whether they were aware of the existence of the SU plagiarism policy. Figure 4.3 shows the percentage of students who are aware of the SU plagiarism policy. Based on their varying engagement in the many kinds of plagiarism as shown in Figure 4.3, the majority of students are aware of the existence of the plagiarism policy. Their involvement is as follows; unintentional plagiarism 18 (26%), casual plagiarism 3 (5%), self-plagiarism 3 (5%), none 2 (3%) and the least was intentional plagiarism 1 (2%). Those who were not aware included those involved in unintentional plagiarism 16 (24%), casual plagiarism 16 (24%), self-plagiarism 5 (8%), none 2 (3%) and lastly intentional plagiarism 0 (0%).



**Figure 4.3: Students ‘Awareness of the SU Plagiarism Policy**

#### **4.3.1.4 Students’ Knowledge of the Plagiarism Policy**

Figure 4.4 shows the results of the study to see if students who were aware of the policy had read it. The data in Figure 4.4 indicates that the majority of the students have read the plagiarism policy based on their different involvement in the various categories of plagiarism as follows, unintentional plagiarism 27 (41%), casual plagiarism 15 (23%), self-plagiarism 7 (11%), none 3 (5%) and the least was intentional plagiarism 1 (2%). Those who have not read it included those involved in unintentional plagiarism 5 (8%), casual plagiarism 3 (5%), self-plagiarism 2 (3%), none 2 (3%) and lastly intentional plagiarism 1 (2%).



**Figure 4.4: Students ‘Knowledge of the Plagiarism Policy**

#### **4.3.2 Faculty Members Views of the Nature and Extent of Plagiarism**

Five faculty members were asked their views on the nature and extent of plagiarism at SU. The data on their responses is presented in table 4.4. It is evident that some similar types of plagiarism were selected by more than one faculty member, this shows that some have a higher frequency in being committed by students and are uncovered by the faculty members while reviewing the researchers’ works.

**Table 4.4: Faculty members’ views on the nature (Types) of plagiarism**

<b>Nature/Type of plagiarism</b>	<b>Definition</b>	<b>Frequency(of the nature/type of plagiarism)</b>	<b>Percentages (%)</b>
Clone	Submitting another’s work, word-for-word, as one’s own	4	20
CTRL-C	Contains significant portions of text from a single source without alterations	3	15
Find/Replace	Changing key words and phrases but retaining the essential content of the source	4	20
Remix	Paraphrases from multiple sources made to fit together	1	5
Recycle	Borrows generously from the writer’s previous work without citation	2	10
Hybrid	Combines perfectly cited sources with copied passages without citation	0	0
Mash-up	Mixes copied material from multiple sources	3	15
404 Error	Mixes copied material from multiple sources	1	5
Aggregator	includes proper citation to sources but the paper contains almost no original work	1	5
Re-tweeting	Includes proper citation, but relies too closely on the text’s original wording and/or structure	1	5
<b>Total</b>		<b>20</b>	<b>100</b>

**4.3.3 DR&I views on the Nature and Extent of plagiarism**

“Which category of students plagiarize the most?”

Administrators A and B had a similar response of - “*Undergraduate students*”

While on the other hand, administrator C; “*Postgraduate students*”

How many cases of plagiarism do you solve per academic year?

The responses are presented in Table 4.5.

**Table 4.5: University administrators’ views on the annual rate/extent of plagiarism**

Administrator A	Less than 5
Administrator B	6-10
Administrator C	Over 10

#### **4.3.4 Librarians Views on the Nature and Extent of Plagiarism**

The data for the responses of the librarians on the question of plagiarism at SU was coded and stored as Primary Documents (PDs) in the ATLAS.ti software. The primary documents were used to create relations between themes and their codes. The number of links to other codes is indicated by a numeric value against each code (such as Hybrid {3-8}). Renaming of the relations was done by the relations editor to show the two applied relationships discussed below.

Note:

- a) A transitive type of relationship means that all relating parts are influenced simultaneously and similarly. For instance, ‘is a’ denotes a simultaneous influence between the code and the respective theme.
- b) Symmetrical relationships demonstrate balance in codes or a family even with inversion of positions e.g., ‘is associated with’.

When the librarians were interviewed on the role of faculty and librarians in preventing plagiarism among students at SU, three main themes (families) emerged and were presented using network views.

They are as follows;

- i. Nature of plagiarism
- ii. Internet influence
- iii. Challenges in preventing plagiarism

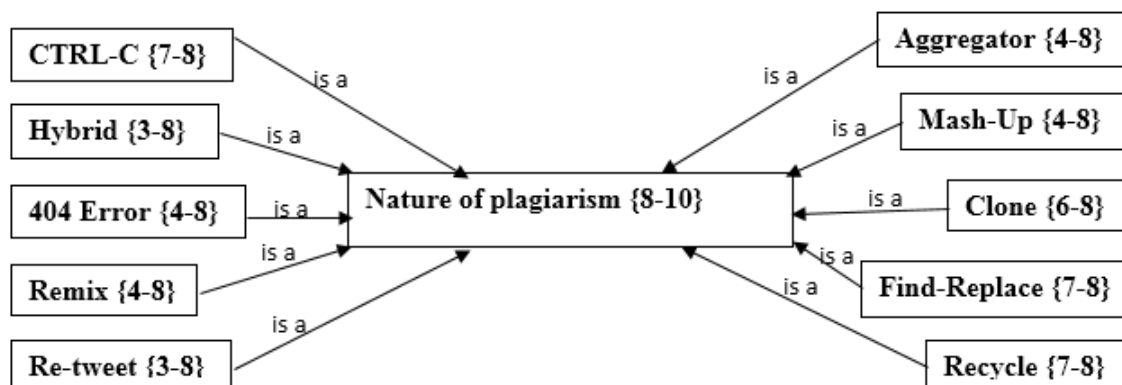
#### **4.3.4.1 Nature of Plagiarism**

When the librarians were interviewed about the nature and extent of plagiarism at SU, one theme emerged. The theme was presented using a network of themes (characteristics or the perceptions that the researcher sees as relevant to the research questions) and codes (i.e., labels attached after themes have been identified).

The codes with the “is a” transitive type of relationship showing the nature of plagiarism are illustrated as follows;

- ❖ 404 Error: total 4 times, within 8 primary documents
- ❖ Aggregator: total 4 times, within 8 primary documents
- ❖ Clone: total 6 times, within 8 primary documents
- ❖ CTRL-C: total 7 times, within 8 primary documents
- ❖ Find-Replace: total 7 times, within 8 primary documents
- ❖ Hybrid: total 3 times, within 8 primary documents
- ❖ Mash-Up: total 4 times, within 8 primary documents
- ❖ Re-tweet: total 3 times, within 8 primary documents
- ❖ Recycle: total 7 times, within 8 primary documents
- ❖ Remix: total 4 times, within 8 primary documents

Figure 4.5 is a network of the librarians’ views on the nature of plagiarism identifying 10 codes.



**Figure 4.5: Network of Librarians’ View on the Nature of Plagiarism**

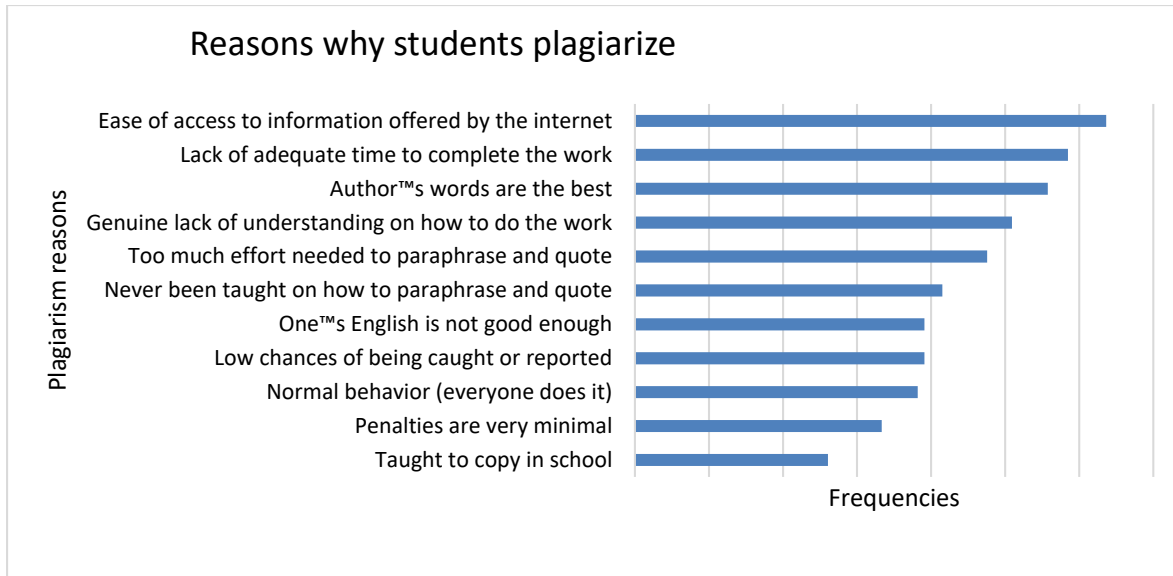
#### **4.4 How the Internet Influences Plagiarism**

Questions were administered to the students, librarians, faculty and administrators on the reasons why students plagiarize and on the internet influence on plagiarism. The findings are presented below;

##### **4.4.1 Reasons Why Students Plagiarize**

Figure 4.6 presents the reasons why students plagiarize.

The data in Figure 4.6 indicates that the ease of access to information offered by the internet-3 (13%), Lack of adequate time to complete the work-3 (12%), Authors’ words are the best-3 (11%), Genuine lack of understanding on how to do the work-3 (10%), Too much effort needed to paraphrase and quote-2 (10%), Never been taught on how to paraphrase and quote-2 (8%), One’s English is not good enough-2 (8%), Low chances of being caught or reported-2 (8%), Normal behaviour (everyone does it)-2 (8%), Penalties are very minimal-2 (7%), Taught to copy in school-1 (5%).



**Figure 4.6: Reasons why students plagiarize**

#### 4.4.2 Faculty Members Views on the Influence of the Internet on Plagiarism

The faculty members were asked to give their perceptions on internet plagiarism at SU institution?" Their response is shown in table 4.6. Internet plagiarism was rated as follows, faculty members 1, 2 and 3 indicated that internet plagiarism is at more than 50%, while faculty members 4 and 5 indicated 20 – 50%.

**Table 4.6: SU Faculty perceptions on the internet plagiarism**

Category	Perception of internet plagiarism (%)
Faculty member 1	>50
Faculty member 2	>50
Faculty member 3	>50
Faculty member 4	20–50
Faculty member 5	20 – 50

#### 4.4.3 DR&I Views on the Influence of the Internet on Plagiarism

When asked their views on the influence of internet resources on plagiarism, the Directors of Research and Innovation (administrators) gave their responses as follows.

One indicated 100%, the other 50 – 90% and the third one 20 – 50%, as presented instable 4.7.

**Table 4.7: Internet influence on plagiarism – DR&I**

<b>Category</b>	<b>Internet influence (%)</b>
Director of R&I A	100
Director of R&I B	50 – 90
Director of R&I C	20 – 50

On the question of the most used electronic means to plagiarize, table 4.8 summarizes the responses.

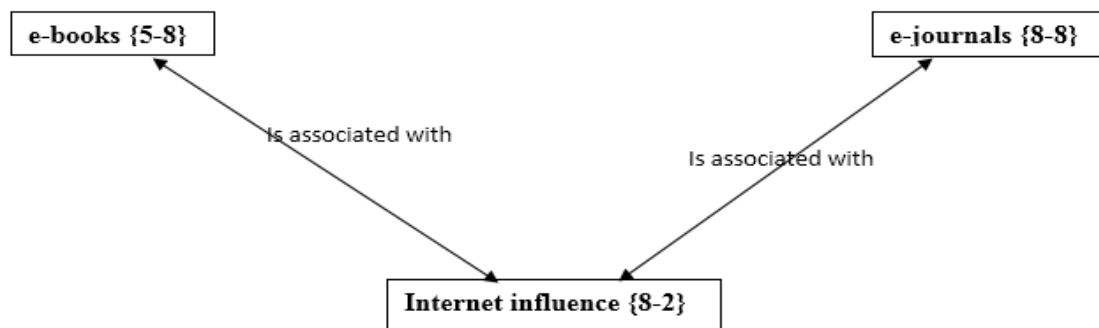
**Table 4.8: Plagiarism using electronic devices**

<b>Electronic devices</b>	<b>Frequency</b>	<b>% Frequency</b>
Laptops	3	75
Desktop computers in the laboratories	1	25
Mobile phones	0	0
Tablets	0	0
<b>Total</b>	<b>4</b>	<b>100</b>

#### 4.4.4 Librarians Views on the Influence of the Internet-Based Resources on Plagiarism

The librarians' views on the influence of internet-based resources on plagiarism identify two codes. The codes with “is associated with” represent a symmetrical type of relationship and they include:

- ❖ e-books: total 5 times, within 8 primary documents
- ❖ e – journals: total 8 times, within 8 primary documents



**Figure 4.7: Network of Internet Plagiarism**

#### 4.5 Challenges in Preventing Plagiarism

The data on the challenges faced in the process of preventing plagiarism obtained from the students, faculty, administrators and librarians, is presented in this section.

##### 4.5.1 Students Views on Challenges in Preventing Plagiarism

Students were asked about whether they ask for help when having difficulty in doing their work.

The data on their responses is presented in table 4.9.

The data in table 4.9 indicates that students who seek assistance during research ranked highest with 51% (34), sometimes was second with 38% (25), while those who do not seek help when having difficulty in doing their research work ranked the least with 11% (7).

**Table 4.9: Seeking assistance during the research**

<b>Response</b>	<b>No. of students</b>	<b>Frequency</b>
Yes	34	51%
Sometimes	25	38%
No	7	11%
<b>Total</b>	<b>66</b>	<b>100%</b>

The data in table 4.10 indicates that 80% (53) seek help on research work during difficulty from their classmates, 15% (10) seek help from lecturers, 2%, 2% and 2% (1) each seek help from their faculties, none of the options given and Turnitin respectively.

**Table 4.10: Sources consulted on plagiarism or referencing issues**

<b>Sources of help</b>	<b>No. of students</b>	<b>Frequency</b>
Classmates	53	80%
Lecturers	10	15%
None of the above	1	2%
Turnitin	1	2%
SLS (Strathmore Law School)	1	1%
<b>Total</b>	<b>66</b>	<b>100%</b>

#### 4.5.2 Faculty Members Views on Challenges in Preventing Plagiarism

The faculty members were asked to state their view on whose role is it to prevent plagiarism at SU. The responses are summarized in Table 4.11.

The data in Table 4.11 indicates that the majority of the respondents - 3 (30%) believe that the responsibility of preventing plagiarism is upon the lecturers. Followed by 2 (20%) respondents indicated that this responsibility belongs to students, another 2 (20%) for librarians, an equal 2 (20%) indicated that the responsibility is for all the mentioned groups, while the least 1 (10%) indicated that it is a responsibility for the research office staff. None of the respondents 0 (0%) selected the option of 'none of the above.'

**Table 4.11: Responsibility of preventing plagiarism**

<b>Role players</b>	<b>Frequency</b>	<b>% Frequency</b>
Lecturers	3	30
Librarians	2	20
Students	2	20
All of the above	2	20
Research office staff	1	10
None of the above	0	0
<b>Total</b>	<b>10</b>	<b>100</b>

#### 4.5.3 Administrators Views on Challenges in Preventing Plagiarism

When the administrators were asked to give their perceptions on whose role it is to prevent plagiarism, their responses are presented in table 4.12.

Data in table 4.12 shows that Librarians were mentioned two times, translating to 29%. This was the same for students who were mentioned twice, representing 29% of the respondents. Lecturers, on the other hand, were mentioned three times, which translates to 42% of the responses.

**Table 4.12: Administrators’ views on whose role it is to prevent plagiarism**

<b>Role players</b>	<b>Frequency</b>	<b>% Frequency</b>
Librarians	2	29
Lecturers	3	42
Administrators	0	0
Students	2	29
<b>Total frequency</b>	<b>7</b>	<b>100</b>

#### **4.5.4 Librarians’ Views on Challenges in Preventing Plagiarism**

Librarians were asked to state the challenges they experienced in preventing plagiarism. Their views are captured through six codes presented as a network view in Figure 4.8.

Some of the excerpts from the librarians’ responses on the challenges of plagiarism included the following;

Librarian 1:

*“Peer pressure among students is a common challenge.”*

Librarian 2:

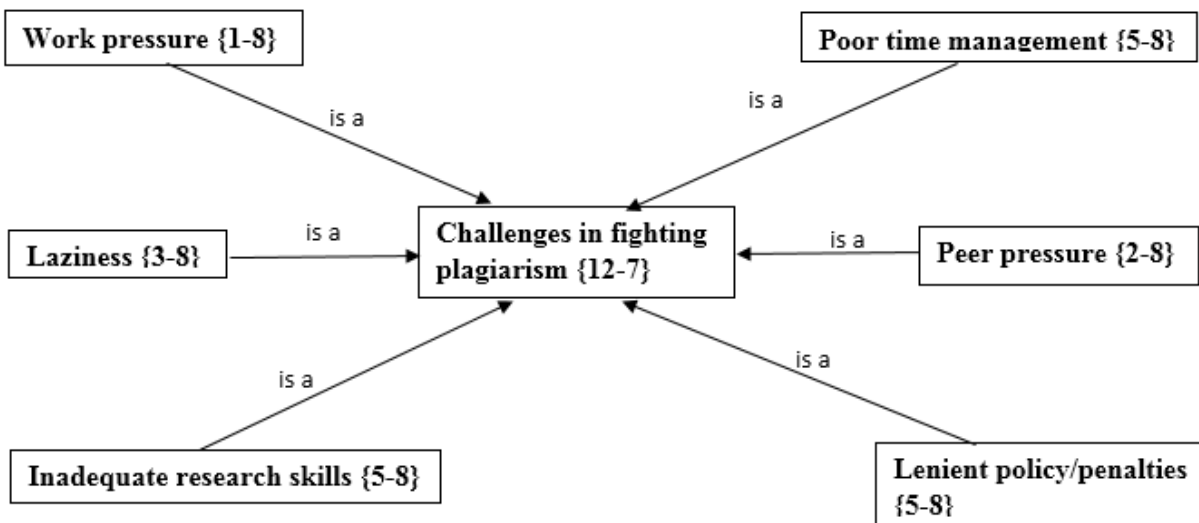
*“Some students haven’t mastered yet the research skills offered during trainings.”*

Librarian 3:

*“The Institutional policies on plagiarism are quite lenient.”*

The codes with 'is a' represent a transitive type of relationship. They are as follows;

- ❖ Inadequate research skills: total 5 times, within 8 primary documents
- ❖ Laziness: total 3 times, within 8 primary documents
- ❖ Lenient policy/penalties: total 5 times, within 8 primary documents
- ❖ Peer pressure: total 2 times, within 8 primary documents
- ❖ Poor time management: total 5 times, within 8 primary documents
- ❖ Work pressure: once, within 8 primary documents



**Figure 4.8: Network View of the Challenges of Plagiarism**

#### 4.6 Chapter Summary

This chapter presented an analysis of the research data and the themes that emerged from the research data. The themes that emerged from the objectives include the nature and extent of plagiarism and this has come out to be average with the copy-paste on the lead. Internet influence on plagiarism having laptops as the main access points among students also stood out. The

challenges encountered by librarians and faculty in preventing plagiarism, lack of clarity on who is the main role player in this and students not consulting them freely emerged as the main challenges. The next chapter will interpret and discuss the study findings.

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS**

#### **5.0 Introduction**

The previous chapter was data analysis and presentation. This chapter presents an interpretation of the findings of this study guided by the main objective, specific research objectives, literature review and a proposed plagiarism prevention framework based on the General Deterrence Theory (GDT).

#### **5.1 Nature and Extent of Plagiarism in Academic Research at SU**

Several issues emerged from objective one. Students acknowledged that they engaged in plagiarism both knowingly and unknowingly. Four categories of plagiarism were identified at the SU, namely, unintentional plagiarism, casual plagiarism, intentional plagiarism and self-plagiarism, just as discussed in the literature review by Ashikuzzaman (2019). The majority of students 49 (74%) stated that the training sessions on plagiarism were useful.

Faculty members indicated that the majority of the students commit plagiarism mainly through Clone (submitting another is work, word-for-word, as one's own – 20%); rarely do they plagiarize through Hybrid (combines perfectly cited sources with copied passages without citation – 0%). The rest of the sub-forms of plagiarism had minimal occurrences. The most used forms are easier to apply in plagiarizing due to the electronic devices' enablement as discussed in chapter two by Mitrea (2019). Therefore, awareness creation on plagiarism issues upon admission will improve attendance for the training sessions. Effective training by the librarians and faculty could increase the 'usefulness' of the sessions to the students.

The Directors of Research & Innovation (DR & I) gave different responses on the question of which category of students plagiarize the most. These included both the undergraduate students

and the postgraduate students. This is to mean that plagiarism is committed in academic research by all levels of study. As reviewed in the literature, on the extent of plagiarism it reflected among majority of the academic researchers and even the non-academic ones. It cuts all across as discussed in both the global and African perspectives respectively (Amiri & Razmjoo, 2016; Mbutho & Hutchings, 2021; Selemani et al., 2018). On the annual rate/extent of plagiarism among students at SU, the DR & I indicated an average of 6-10 cases. This shows that the act of plagiarism is still committed though to a minimal extent within SU, indicating that it is still existent and needs to be minimized more or rather totally prevented by the role players. This form of extent had not been clarified in the literature review.

The data provided by the librarians under this study established that plagiarism occurs more frequently through certain sub-forms, which include CTRL-C, Find-Replace and Recycling of information. It occurs less frequently via a hybrid method. All the codes identified in this family (of the nature of plagiarism) had a transitive type of relationship.

## **5.2 Influence of the Internet on Plagiarism at SU**

The study found that the internet has an impact on plagiarism in a variety of ways. The respondents averagely rate this influence at 50% as its contribution to plagiarism in academic research at SU. The free availability of a majority of online resources makes it very easy to become a plagiarism victim. The institution has subscribed to numerous databases that provide voluminous resources to legible students in form of e-books and e-journals. Besides the subscriptions, the internet equally provides numerous open-access resources, which are freely accessible without any required authentication procedures by any researcher.

Free internet access by the students while on campus and may other alternative connectivity options makes the effortless copy and paste procedure by the students such a norm, with a majority of them assuming that internet content lack serious ownership. Most institutions provide unlimited internet through WI-FI to their students. With the high-speed internet connection that comes along with this, students are unable to ‘think creatively’ during the writing process. Hence the students end up copy-pasting works, patch writing and failing to paraphrase (Kauffman & Young, 2015; Rogerson, 2017).

Negative use of electronic devices is among the main means of plagiarism among students. Laptops are the most misused, followed by the desktop computers in the laboratories. The students rarely use mobile phones and tablets. The fact that the institution provides every student with a laptop upon admission to the university explains why laptops have the highest frequency. The faculty and librarians are expected to train the students on positive use of the devices more so while they are on the internet as discussed in section 2.2. This is supported by Peytcheva-Forsyth et al., (2018), who widely elaborates on both the positive and negative impact of technology on research.

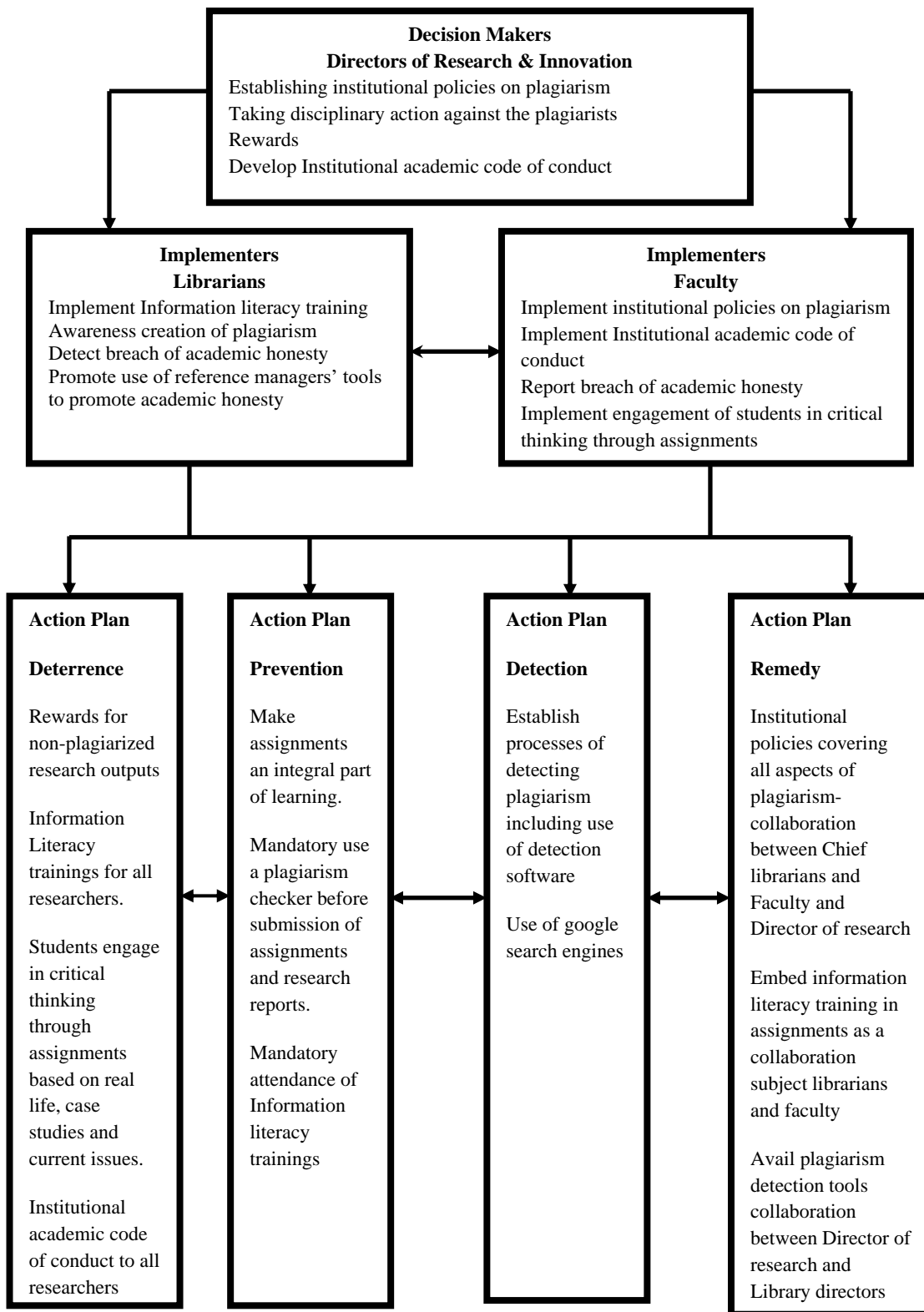
### **5.3 Challenges Faced by Librarians and Faculty in Combating Plagiarism at SU**

From the responses on the institutional policy on plagiarism, out of which a great percentage of the students were not aware of its existence and content, it is clear that the university needs to increase publicity on its plagiarism policy and conduct in-depth sessions on the policy’s content with ‘all’ students upon admission to the university, or before the start of their academic research work. Such awareness and knowledge will help in minimizing plagiarism incidences among the students (Glendinning, 2014, p.16; Hodgkinson et al., 2016). The deterrence theory’s relevance applies in this case whereby clear policies on plagiarism are set and awareness created to minimize plagiarism cases (Trang & Brendel, 2019).

Lenient penalties emerged as another challenge in preventing plagiarism. From the responses, it had quite a high frequency/occurrence. Penalties must be severe and dependent on a variety of elements, including the degree of plagiarism. Lenient plagiarism penalties make the researchers compromise as they can bear the punishments. The General Deterrence Theory, in which the researcher measures the benefits of plagiarizing against the pain of being detected, makes this apparent. They consider the certainty, severity and celerity of the punishment, and this determines whether they go ahead to plagiarize or not as discussed under the GDT. Lack of clarity on the main role player (s) in preventing plagiarism among students at SU is a serious challenge. From the responses, students mainly consult their classmates, faculty members believe that it is mainly the role of lecturers while the DR & I believe that it is the librarian's role to prevent plagiarism.

#### **5.4 Harmonizing the Role of Librarians and Faculty in Combating Plagiarism**

This objective was to propose a framework for harmonizing the role of librarians and faculty in preventing plagiarism at SU. The framework is adapted from the General Deterrence Theory and is presented in Figure 5.1



**Figure 5.1: The Plagiarism Prevention framework for SU**  
 Source: *Adopted from General Deterrence Theory* (Alanezi & Brooks, 2014)

The proposed framework can be adopted to minimise incidences of plagiarism at the SU. This framework includes the following core components adapted from the General Theory of Deterrence. The top-level component namely ‘Decision-makers’ who are the Directors of Research and Innovation. The second level components namely the ‘Implementers’ who are the Faculty and Librarians. The third level components the namely ‘Plans of Action’ which include ‘Deterrence, Prevention, Detection and Remedy’. The Faculty and Librarians role in preventing plagiarism at SU will work best when the three levels and components are harmonized. The next sections explain how the framework components can be harmonized at SU.

#### **5.4.1 Decision Makers (Directors of Research and Innovation)**

The top level of the framework covers the decision-makers who are the Directors of Research and Innovation and are responsible for formulating guidelines and policies on plagiarism in research. These policies will include matters such as the definition of plagiarism and its causes; availability of free online resources; usage of connected devices as they all contribute to intentional and unintentional forms of plagiarism.

#### **5.4.2 Implementers**

At the second level, we have the implementers who are the librarians and the faculty. The two groups of implementers will collaborate to implement the decision makers’ policies on plagiarism prevention. The role of librarians in preventing plagiarism can be harmonized through different ways. Being the main custodians of information resources, they can be invited by the faculty members to conduct the Information Literacy trainings to the academic researchers. The trainings will mainly include the use of reference managers and tools such as Mendeley, Zotero, EndNote,

among others. They will also create awareness on plagiarism policy and its contents to the researchers through these trainings and other ways such as the use of notice boards and flyers. Before archival of the works to the IR, librarians can detect a breach of academic honesty by running the researchers' works through similarity checker software such as Turnitin, Urkund, among others and take relevant action if any misconduct is detected. The librarians equally provide support to faculty in the plagiarism check of assignments, projects, theses and dissertations by giving them direct access rights to the similarity checkers via authorized credentials.

The proposed framework tasks the faculty, who in this case are the lecturers, to implement the institutional policies on plagiarism and the academic code of conduct to the researchers. This will be done during the learning sessions by explaining in detail what the contents of the policy and the code of conduct are, follow-ups after assignments and through the signing of an honour code by the researchers. The faculty members will also report any plagiarists to the DR & I for their punitive action, and engage the students in assignments that involve critical and creative thinking that minimizes instances of plagiarism. Faculty will enforce mandatory attendance of the Information Literacy sessions by the students. This will be achieved in various ways, for example, having an attendance register and administering punishment for the absentees. A simple test will also be conducted on the students after the sessions and incorporate the marks to a related subject of study.

### **5.4.3 Plans of Action**

The third level contains measures that can be used in plagiarism prevention at the SU. It includes four major strategies that can be used for plagiarism prevention. Deterrence involves dissuading a researcher from plagiarizing by creating awareness of consequences. It involves the DR & I together with the faculty rewarding the non-plagiarists such as through awarding certificates of

excellence and giving them an identity in the research fraternity for their authenticity as a way of motivating the rest. The librarians and faculty can attain deterrence of plagiarism by conducting Information Literacy and implementing the academic code of conduct to all researchers. This will be incorporated in the classroom sessions and equally have special sessions and examinations on the same, just to gauge whether the researchers will have understood the whole concept and improved in their research skills. Faculty will deter plagiarism by engaging the students in assignments that need critical thinking application and involve real-life issues, case studies and current or emerging issues. This will encourage creativity and not just copy pasting.

Prevention involves the actions undertaken to stop plagiarism from happening. First, faculty will prevent plagiarism by making assignments an integral part of learning. This means every single task in the form of assignments to the students should be done to learn ethical use of information and plagiarism to be checked. Second, both the faculty and librarians can participate in plagiarism prevention by receiving training on the use of the plagiarism similarity checkers, such as Turnitin.

Detection is the process of identifying the presence of plagiarism in a document or a piece of work using customized software. Both librarians and faculty members will undertake the act of detection with similarity checking software such as Urkund, Turnitin, among others.

Librarians and faculty will require continuous training on the new features in search engines such as Google chrome, Mozilla Firefox, to check copied sources from the internet.

Remedy to the problem of plagiarism will involve several measures. First, there is a need for collaboration between the chief librarians, faculty and Directors of Research and Innovation. This is aimed at ensuring that all the institutional policies on the prevention of plagiarism are comprehensive. Secondly, subject librarians and faculty can collaborate to embed Information Literacy in assignments or incorporate it as an independent study for the students. Thirdly,

plagiarism detection tools should be availed to the researchers. The library director and faculty will facilitate this. Also, through creating individual institutional accounts for each researcher. In summary, the combined role of the librarians, faculty and DR & I have been discussed and presented through the proposed framework.

### **5.5 Chapter summary**

This chapter presented the discussions and data interpretation of the study findings and the proposed plagiarism prevention framework by the researcher. The findings of the study established the nature and extent of plagiarism at SU, internet influence and the challenges encountered by the faculty and librarians in preventing plagiarism at SU. The next chapter presents the summary of the study findings, the conclusions and recommendations.

## CHAPTER SIX

### CONCLUSIONS AND RECOMMENDATIONS

#### 6.0 Introduction

This chapter presents a summary of the study findings, conclusions and recommendations from the study and recommendations for future research in accordance with the aim of the study. The aim of this study was to investigate the role of librarians and faculty in preventing plagiarism among students and propose a framework for harmonization at Strathmore University (SU), in Nairobi, Kenya.

#### 6.1 Summary of the Research Findings

According to the first objective on the nature and extent of plagiarism in academic research, the study found out that the four main categories involved in by the students from the highest to the least include unintentional plagiarism, casual plagiarism, intentional plagiarism and self-plagiarism. In addition, that the plagiarism training and information literacy sessions for the students upon admission help minimize cases of plagiarism if strictly followed. The majority of the students have plagiarized through the clone, find-replace, CTRL-C; recycling and mash-up, and rarely through hybrid. Lastly, that both the postgraduate and undergraduate students engage in some form of plagiarism.

According to the second objective on the influence of the internet on plagiarism, the study found out three key factors. First, is that the availability of free e-resources such as e-books and e-journals influenced students to plagiarize. Second, that free internet access within the institution-accelerated plagiarism among students. Third, that the availability of internet-connected electronic devices to all students was also an influence on plagiarism.

According to the third objective on challenges encountered by the librarians and faculty while preventing plagiarism, the following factors stood out. First, there was no clear institutional policy on plagiarism. Second, the plagiarism penalties and punishments were lenient. Third, there were no clear role among librarians and faculty in preventing plagiarism among students at SU.

According to the fourth objective on the proposed framework for harmonizing the role of librarians, faculty in preventing plagiarism among students at SU, the study established the following. One, there are three core components that constitute the mitigation of plagiarism from the proposed framework. These include the Directors of Research and Innovation (Decision makers), librarians and faculty (implementers) and the processes of deterrence, prevention, detection and remedy (plans of action). Two, the librarians and faculty will play a key role in collaborating to implement the decisions made by the Directors of Research and Innovation through carrying out the plans of action towards deterrence, prevention, detection and remedy. Three, some of the ways in which the librarians' and faculty role have been harmonized include the following;-creating awareness through conducting IL trainings and elaborating the institutional plagiarism policy and code of conduct to the students as a deterrence method, mandatory use of plagiarism checkers and attendance of the IL sessions as a preventive technique, detecting plagiarism through the use of similarity checker software and Google search engines, and lastly, providing a remedy to plagiarism by implementing the institutional policies made by the DR & I.

## **6.2 Conclusion**

This study concludes that there are various forms of plagiarism in which the students diversely engage in which include intentional, casual, unintentional and self-plagiarism. The internet accelerates plagiarism mainly through free online resources and free internet access via personal computers. The main challenge faced by librarians and faculty in preventing plagiarism among

students is a lack of clarity in the institution's plagiarism policy and its role. Finally, the proposed plagiarism framework will guide the DR & I, librarians and faculty on their expected harmonized role.

### **6.3 Recommendations**

Based on the findings of the study, the researcher made the following recommendations.

#### **a) Recommendations from the study**

- i. Institutional policies to incorporate training on the ethical use of electronic devices in research.
- ii. On the nature and extent of plagiarism, researchers should be trained on academic writing skills in assignments and research work.
- iii. On the influence of the internet on plagiarism, researchers should be trained more on the ethical use of information inclusive of paraphrasing skills and attribution of authors other than copy-pasting resources from the internet.
- iv. On mitigating plagiarism, the librarians and faculty should collaborate and implement policies developed by the Directors of Research and Innovation proposed in the plagiarism prevention framework proposed by the researcher. Their specific role have been outlined in the proposed harmonized framework.

#### **b) Recommendations for further research**

- i. Other researchers can conduct a correlation study between the use of electronic devices and increased plagiarism amongst research students.
- ii. Other researchers to carry out studies on specific policies that the librarians and faculty can utilize in the prevention of plagiarism for SU other than the general policies.

- iii. This study adopted and adapted the General Deterrence Theory for plagiarism prevention, other studies should adopt and adapt other theories and compare the results.
- iv. This study applied the convergent mixed-method research design; other studies can be conducted using different approaches.

#### **6.4 Chapter summary**

This chapter presented a summary of the research findings and the conclusions of the study based on the study findings. It also proposed the recommendation that can be applied in determining the role of librarians and faculty in preventing plagiarism among students at SU.

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## APPENDICES

### Appendix 1: Proposed Budget

No.	Item	Sub-total	Total
1.	Proposal writing-Stationary computer, photocopy printing and binding	1500 300 200	2000
2.	Research instruments-Interview Schedules		800
3.	Data collection- Hiring 2 research assistant	5000	10000
4.	Data analysis and proof-reading	5000 15,000	20,000
5.	Typing, printing and photocopy, binding	3000 1000	4000
6.	Transport, communication, stationery, computer, internet services	5000	5000
7.	<b>Total</b>		<b>41,800</b>

**Appendix 2: Proposed Work Plan or Time Plan**

Activity	February- April	May - July	February 2021 – August 2021
Proposal  Writing and defence	●		
Amendments and corrections		●	
Data collection, Data Analysis & presentation			●

### Appendix 3: Questionnaire for Students at Strathmore University

Dear respondent,

I am Neema Imbayi, a Master’s student in the Department of Information and Knowledge Management, Technical University of Kenya (TUK). I am conducting a study titled: The role of the librarians and faculty in preventing plagiarism among students at Strathmore University (SU). You have been selected to participate in my study. Kindly note that participation is voluntary and is highly appreciated. The answers provided will be confidential and anonymity applied. Kindly answer the questions with honesty.

Contact; imbayi.neema97@gmail.com

This questionnaire is divided into five sections, and it will take you 15 minutes or less to answer the questions.

#### Section A: Personal Information

1. Gender (✓ Tick the appropriate answer)

Male  Female

2. Nationality.....

3. What is your course title?  
.....

4. What year of study are you currently in?

First  Fourth   
Second  Postgraduate   
Third  Other (Please specify) .....

#### Section B: Nature and extent of plagiarism

1. What do you understand by the term “plagiarism”?  
.....  
.....

2. a) Did you have a session on plagiarism when you joined Strathmore University?

Yes

No

b) If yes, did you find it useful?

Yes

No

3. a) Are you aware of Strathmore University's plagiarism policy?

Yes

No

b) If yes, have you read it?

Yes

No

4. Among the following categories of plagiarism, which one have you been involved in?

Casual plagiarism (committed due to lack of awareness of plagiarism, or insufficient knowledge of referencing and citation)

Unintentional plagiarism (due to the wide amount of knowledge, one unknowingly ends up presenting ideas similar to others)

Intentional plagiarism (one deliberately and knowingly copies a part of all of someone else's work without giving relevant credit to the source)

Self-plagiarism (reusing one's own published work in a different form, without acknowledging it)

### **Section C: Influence of the internet on plagiarism**

1. Rate the following (with a tick, where applicable) reasons for plagiarism on a scale of 1-4 where;

(1 = Never; 2 = Rarely; 3 = Sometimes; and 4 = Frequently)

	1	2	3	4
Ease of access to information offered by the internet				
Lack of adequate time to complete the work				
Low chances of being caught or reported				
Normal behaviour (everyone does it)				
Genuine lack of understanding on how to do the work				
Penalties are very minimal				
Never been taught how to paraphrase and quote				
Too much effort needed to paraphrase and quote				
One's English is not good enough				
The author's words are the best				
Taught to copy in school				

2. Through which means do you easily access information from the internet (Tick all the possible options)

Smart phones

Laptops

Tablets

**Section D: Challenges of preventing plagiarism**

1. Do you ask for help when you are having difficulty doing your research work?

Yes                       No                       Sometimes

2. Are you confident with citing and referencing your work?

Yes                       No                       Sometimes

3. Whom do you ask for help with regards to plagiarism or referencing issues?

Classmates

Lecturers

Librarians

Course administrators

None of the above

Other (please specify) .....

**Section E: Strategies for preventing plagiarism**

1. Do you have plagiarism detection software in your institution?

Yes                       No                       Not sure

If yes, which one? ... What is the threshold percentage for plagiarism for any research output?.....

2. What penalty is given to plagiarism offence? (Tick all that apply)

Retake

Expulsion

Warning

Mark of zero and no resubmission

Mark zero for all other works

3. Kindly suggest any recommendations on strategies of preventing plagiarism that can be undertaken at SU

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

4. Any other comments?

.....

Thank you very much for your feedback.

## **Appendix 4: Questionnaire for Faculty Members at Strathmore University**

Dear respondent,

I am Neema Imbayi, a Master's student in the Department of Information and Knowledge Management, Technical University of Kenya (TUK). I am conducting a study titled "The role of librarians and faculty in preventing plagiarism among students at Strathmore University. "You have been selected to participate in my study. Kindly note that participation is voluntarily and highly appreciated. This questionnaire will take 15 minutes.

The information provided will be treated with the highest level of confidentiality.

Contact: imbayi.neema97@gmail.com

### Instructions

This questionnaire is divided into five sections, kindly answer all questions by either filling in the space provided or ticking √ in the applicable text box.

### **Section 1: General information**

1. What is your designation at SU?

.....

2. For how long have you worked in this organization?

1 – 5 years     

6 – 10 years   

Over 10 years  

### **Section 2 – Nature and extent of plagiarism**

1. What is the threshold percentage for plagiarism level before submitting a research project at SU?

2. What types of plagiarism is/are mostly practised by the students? For example, have you encountered the following?

Clone (submitting another's work, word-for-word, as one's own)

CTRL-C (contains significant portions of text from a single source without alterations)

Find – Replace (changing keywords and phrases but retaining the essential content of the source)

Remix (paraphrases from multiple sources, made to fit together)

Recycle (borrows generously from the writer's previous work without citation)

Hybrid (combines perfectly cited sources with copied passages without citation)

Mash-up (mixes copied material from multiple sources)

404 Error (mixes copied material from multiple sources)

Aggregator (includes proper citation to sources but the paper contains almost no original work)

Re-tweeting includes proper citation but relies too closely on the text's original wording and/or structure

3. From the above experience, how can you rate plagiarism at SU?

Extremely high

High

Average

Low

### **Section 3 – Influence of the internet on plagiarism**

1. In incidences where you have encountered plagiarism by a student, what were their reactions?

Acceptance

Denial

Bargaining

Excuse making

Anger

2. From this experience, what would you say causes students to plagiarize?

Lack of referencing skills

Poor time management

Laziness

Pressure

Availability of freely accessible internet resources

Lack of respect to authority

Any other.....

3. Which level of students plagiarize more?

Undergraduates

Postgraduates

4. What is often plagiarized?

Assignments

Dissertations

Exams

Projects

5. To what percentage can you rate internet plagiarism in your institution?

Less than 20%

20 – 50%

More than 50%

**Section 4 – Challenges encountered while preventing plagiarism**

1. In your understanding, whose role is it to prevent plagiarism at SU?

Librarians

Lecturers

Research office staff

Students

All of the above

None of the above

2. a) How would you personally prevent plagiarism?

.....

b) In what ways do you feel/think librarians can help prevent plagiarism?

.....

3. Do you understand the following issues stated in the SU plagiarism policy?

In an extreme case of plagiarism or other fraud covering most or all the work, the research output will be cancelled and the student may be expelled.

Responsibility of the student - Evaluate their work for plagiarism by subjecting it to Turnitin.org and attaching the Turnitin report to the research work, attaching the Turnitin report to the research work.

Responsibility of the supervisor - Make the student aware of relevant University research policies and regulations, and legal issues, including but not limited to plagiarism, copyright, data protection, health and safety, and any ethical issues that might arise in the course of research.

4. What changes would you recommend in the policy?

Librarian's responsibility to be included

The penalties to be lenient

The student's responsibility to be elaborated more

Any other.....

.....

Any other comments?

.....

.....

Thank you for your feedback.

**Appendix 5: Questionnaire for DR&I at Strathmore University**

Dear respondent,

I am Neema Imbayi, a Master’s student in the Department of Information and Knowledge Management, Technical University of Kenya (TUK). I am conducting a study titled “The role of librarians and faculty in preventing plagiarism among students at Strathmore University.” You have been selected to participate in my study. Kindly note that participation is voluntary and is highly appreciated. This questionnaire will take 15 minutes.

The information provided will be treated with the highest level of confidentiality.

Contact: imbayi.neema97@gmail.com

Instructions

This questionnaire is divided into five sections, kindly answer all questions by either filling in the space provided or ticking √ in the applicable text box.

**Section 1: General information**

1. What is your designation at SU?

.....

2. For how long have you worked in this organization?

1 – 5 years       6 – 10 years       Over 10 years

**Section 2: Nature and extent of plagiarism**

1. Which category of students plagiarize the most?

Postgraduate       Undergraduate

2. How many cases of plagiarism do you solve per academic year?

Less than 5

6 – 10

Over 10

**Section 3: Influence of the internet on plagiarism**

1. To what percentage can you rate the internet's influence on plagiarism?

Less than 10  50  50  90  90  100

2. Through what electronic means do students plagiarize most?

Mobile phones

Laptops

Tablets

Desktop computers at the laboratories

3. In incidences where you have encountered plagiarism by a student, what were their reactions?

Acceptance

Denial

Bargaining

Excuse making

Anger

All of the above

None of the above

Any other.....

4. From this experience, what would you say is the main cause of students' plagiarism at SU?

Lack of referencing skills

Poor time management

Laziness

Pressure

Availability of the internet (free WI – FI)

Lack of respect to authority

Any other.....

**Section 4: Challenges in preventing plagiarism**

1. In your understanding, whose role is it to prevent plagiarism at SU?

Librarians

Lecturers

Administrators

Students

2. a) Do you provide students with educative materials on plagiarism?

Yes  No

b) If yes, what kinds of sources on plagiarism do you provide?

Printed documents

Weblinks

Electronic journals

3. a) How would you personally prevent plagiarism?

.....

b) In what ways do you feel/think librarians and/or faculty can help prevent plagiarism?

.....

4. As part of the policymakers, to what extent do you understand and can interpret the SU plagiarism policy?

Fully

Partially

Not at all

Not sure

5. What changes would you recommend in the policy?

Librarian's responsibility to be included

The penalties to be lenient

The student's responsibility to be elaborated more

Any other.....  
.....

Any other comments?  
.....  
.....

Thank you for your feedback.

## Appendix 6: Structured Interview Schedule for Library Staff at Strathmore University

Dear respondent,

I am Neema Imbayi, a Master's student in the Department of Information and Knowledge Management, Technical University of Kenya (TUK). I am conducting a study titled "The role of librarians and faculty in preventing plagiarism among students at Strathmore University" and you have been identified to kindly participate in the study. The information provided will be treated with the highest level of confidentiality. This interview will take 35 minutes.

(Email; [imbayi.neema97@gmail.com](mailto:imbayi.neema97@gmail.com))

### Interview questions

1. What is your designation in the library?

University Librarian

Deputy University Librarian

Assistant Librarian

Library Assistant

2. For how long have you worked at the SUL?

1-5 Years

6 – 10 Years

Over 10 Years

3. From your observation, what forms of plagiarism (as identified by Turnitin.com) are normally performed by students? (Tick v in the S.N box).

S.N.	Type	Description
1.	Clone	Submitting another's work, word-for-word as one's own.
2.	CRTL-C	Contains significant portions of text from a single source without alterations.

3.	Find-Replace	Changing key words and phrases, but retaining the essential content of the source.
4.	Remix	Paraphrases from multiple sources made to fit together.
5.	Recycle	Borrows generously from the writer's previous work without citation.
6.	Hybrid	Combines perfectly cited sources and copied passages without citation.
7.	Mash-Up	Mixes copied material from multiple sources.
8.	404 Error	Includes citations to non-existent or inaccurate information about sources.
9.	Aggregator	Includes proper citation to sources, but the paper contains almost no original work.
10.	Re-tweet	Includes proper citation, but relies too closely on the text's original wording and/or source.
11.	Find-Replace	Changing key words and phrases, but retaining the essential content of the source.

6. From (3) above, what do you think causes students to plagiarize at SU?
7. Do you have any sessions on plagiarism prevention for students at SU? Explain
8. How do you detect plagiarism before archival research output in the IR at SU?
9. When testing for plagiarism before archival at the IR, what percentage of research projects are above the threshold provided? (Give a rough estimate)
10. Which information resources do students prefer to use in the library for their research? Why?  
Print books       e-journals       e-books       All of the Above
11. What do you think/feel about the penalties for plagiarism? What would you recommend?
12. Being the custodian of the research output, what would you do to prevent plagiarism as a library staff at SU?
13. What other alternatives would you recommend that will help in preventing plagiarism at SU?

14. Any other comments?

Thank you for your feedback.

## **Appendix 7: Introduction Letter to Strathmore University Respondents**

Neema Indoshi Imbayi,  
The Technical University of Kenya,  
P.O. Box 52428 - 00200 Nairobi.  
March 2019.

Dear respondent,

I am currently enrolled as a graduate student at the Technical University of Kenya. I am undertaking a research study on “The Role of librarians and faculty in preventing plagiarism among students at Strathmore University”. This research is towards the partial fulfilment of the requirements for a Master of Science in Information and Knowledge Management (MSc IKM).

I request an opportunity to interview you on plagiarism related issues at Strathmore University.

The information that you will provide will be treated with confidentiality and privacy and the final report on the finding will be shared with you.

Thank you in advance,

Yours faithfully,



Neema Imbayi.

## Appendix 8: Letter of introduction to NACOSTI



### THE TECHNICAL UNIVERSITY OF KENYA

Haile Selassie Avenue, P. O. Box 52428, Nairobi, 00200, Tel: +254 (020) 343672, 2249974, 2251300, 341639,  
Fax: 2219689, E-mail: vc@kenpoly.ac.ke, Website: [www.tukenya.ac.ke](http://www.tukenya.ac.ke)

### Office of the Director School of Graduate and Advanced Studies

REF: AIIU/09508P/2017

18<sup>th</sup> July, 2019

**The Chief Executive Officer**

National Commission for Science, Technology and Innovation  
NACOSTI Building, Off Waiyaki Way  
P.O. Box 30623 - 00100  
**Nairobi, KENYA**  
Tel: 020 400 7000/0713788787/0735404245

Dear Sir/Madam

**REF: APPLICATION FOR RESEARCH PERMIT**

This is to inform you that **Ms. Imbayi Neema Indoshi** is a registered Master of Science in Information and Knowledge Management student in the Department of Information and Knowledge Management, School of Information and Communication Studies, The Technical University of Kenya. The course is offered by Course Work, Research and Dissertation. The title of her thesis is "***The Roles of Librarians and Faculty in Preventing Plagiarism among Students at Strathmore University.***"

Ms. Indoshi has defended her research proposal and is currently proceeding for field work which will involve data collection using approved surveys and research methods.






This is to kindly request you to issue her with a research permit.



**Prof. Joseph O. Lalah**

Director- School of Graduate and Advanced Studies  
File Copy: Student File  
JOL/smm

**Appendix 9: NACOSTI Research Clearance Permit**

 <p><b>REPUBLIC OF KENYA</b></p>	 <p><b>NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &amp; INNOVATION</b></p>
<p><b>RefNo: 737811</b></p>	<p><b>Date of Issue: 05/September/2019</b></p>
<p><b>RESEARCH LICENSE</b></p>	
	
<p><b>This is to Certify that Ms.. Neema Imbayi of Technical University of Kenya, has been licensed to conduct research in Nairobi on the topic: The Roles of librarians and faculty in preventing plagiarism among students at Kenyatta University for the period ending : 05/September/2020.</b></p>	
<p><b>License No: NACOSTI/P/19/1392</b></p>	
<p><b>737811</b></p>	
<p><b>Applicant/Identification Number</b></p>	
<p><b>Director General</b></p>  <p><b>NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &amp; INNOVATION</b></p>	
<p><b>Verification QR Code</b></p>	
	
<p><b>NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.</b></p>	

## Appendix 10: The Strathmore University Ethical Review Approval Letter



24<sup>th</sup> September, 2019

Ms Imbayi, Neema  
imbayi.neema97@gmail.com

Dear Ms Imbayi,

**RE: The Roles Of Librarians And Faculty In Preventing Plagiarism Among Students At Strathmore University**

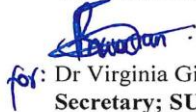
This is to inform you that SU-IERC has reviewed and **approved** your above research proposal. Your application approval number is **SU-IERC0534/19**. The approval period is **24<sup>th</sup> September, 2019 to 23<sup>rd</sup> September, 2020**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-IERC.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-IERC within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-IERC within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to SU-IERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,

  
for: Dr Virginia Gichuru,  
Secretary; SU-IERC



Cc: Prof Fred Were  
Chairperson;SU-IERC

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000  
Email [info@strathmore.edu](mailto:info@strathmore.edu) [www.strathmore.edu](http://www.strathmore.edu)

## Appendix 11: Plagiarism Report

Msc Thesis			
ORIGINALITY REPORT			
15%	13%	5%	9%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS
PRIMARY SOURCES			
1	ir-library.ku.ac.ke Internet Source	1%	
2	www.tandfonline.com Internet Source	1%	
3	www.umes.edu Internet Source	1%	
4	ugspace.ug.edu.gh Internet Source	1%	
5	CHRIS PARK. "In Other (People's) Words: Plagiarism by university students--literature and lessons", Assessment & Evaluation in Higher Education, 2003 Publication	1%	
6	strathmore.edu Internet Source	1%	
7	mafiadoc.com Internet Source	<1%	
8	Submitted to University of South Africa Student Paper	<1%	