CHAPTER 1

INTRODUCTION

1.1 Defining Anxiety

The traditional role of academic libraries has been to support university teaching, learning, and research. It acts as a major source of inquiry for students and faculty to do their research and advance their knowledge. To meet this role, academic libraries provide their users with books and other printed materials, electronic materials, services, staffs and space to study. To meet their information needs, students have to use the academic library resources, services, and staff effectively. However, there are numbers of barriers that hinder students from obtaining the information they need. The feeling of anxiety inside the library is one of those barriers (Onwuegbuzie, Jiao, & Bostick, 2004). Endler and Edwards (1982) described general anxiety as an “emotional state with the subjectively experience quality of fear or a closely related emotion” and “feeling of uncertainty and helplessness” (Onwuegbuzie, Jiao, & Bostick, 2004). The symptoms of this anxiety include increase in heart rate, respiration rate, and blood pressure, increase in overall muscle tension, decrease in skin temperature, and others (Onwuegbuzie, Jiao, & Bostick, 2004). Researchers have identified two types of anxiety, trait anxiety, and state anxiety. According to Gaudry and Spielberger (1971), and Zuckerman (1972, 1976), as stated in Onwuegbuzie, Jiao and Bostick (2004), trait anxiety is “the relative stable proneness within each person to react with anxiety to situations that are perceived stressful”. They defined state anxiety as a temporary emotional state of an individual and a construct that varies in intensity and fluctuates over time. Onwuegbuzie, Jiao and Bostick (2004) further indicated that it is a relatively stable and permanent personality characteristics unbound to neither time nor
situation-specific. Researchers have reported that the state of anxiety adversely affects learning and achievement because anxiety induced in educational settings tends to be situation-specific (Onwuegbuzie, Jiao, & Bostick, 2004). Onwuegbuzie, Jiao and Bostick (2004) indicated that many types of academic-related anxiety have been identified, including computer anxiety, research anxiety, statistic anxiety, writing anxiety, foreign language anxiety, general test anxiety, and mathematics anxiety. Mellon (1986) was the first to introduce the concept of library anxiety, where she found that students exhibited symptoms that are similar to math anxiety symptoms, when they are using the library to write their first research paper. She qualitatively analyzed personal writings of 6000 students in a two-year period in order to utilize the results in developing effective library instruction session. Her study found 75 to 85 percent of students expressed their feelings when using the library for conducting a research in terms of fear and anxiety. Sources of anxiety were the large size of the library which was intimidating for some students, lack of knowledge about materials location, confusion about how to start search process, and what to do. Mellon (1986) found that these feelings and confusions prevented students from using their academic library effectively. In addition, Mellon (1988) observed that those feelings forced some students to reduce the time they stay in the library, and spend money in photocopying materials they needed. Mellon (1986) also found that what makes those feelings undiscovered by either librarians or academic staff is the shyness of students to reveal what they did not know. Students perceived their research skills as inadequate compared to other students and fear that this shameful ignorance will be revealed if they ask questions. They also believed that they should not disturb librarians who look busy in their work with their ignorant simple questions. These feelings and defeating thoughts
made students reluctant to ask for help. This situation combined with their lack of knowledge about how to find what they need put them in academic risk and affects different academic-related tasks (Mellon, 1986a, Onwuegbuzie, 1997a, Jiao & Onwuegbuzie, 1998, Jiao & Onwuegbuzie, 1999a, and Onwuegbuzie & Jiao, 2000). This finding alerted other researchers to investigate further about the phenomenon. As Mellon’s (1986a) study was qualitative in its nature, subsequent researchers used quantitative methods in an attempt to measure library anxiety which they found to be a multidimensional construct. Bostick (1992) identified 5 dimensions of library anxiety, and developed a reliable instrument known as Library Anxiety Scale (LAS), that determines a person’s level of library anxiety. As she was studying university students who were using academic libraries, her instrument included: (1) Barrier with the staff, (2) Affective barriers, (3) Comfort with the library, (4) Knowledge of the library, and (5) Mechanical Barriers. Barrier with the staff measures anxiety caused by students’ perception and interaction with the staff. Supporting Mellon’s (1986a) finding that students were hesitant to approach the librarian, Bostick (1992) revealed that students perceive librarian as intimidating, difficult to approach because they look busy doing other works which, students perceived as more important than answering their simple or stupid questions. This dimension appeared in several instruments that measure library anxiety with minor differences in the terms being used to name them, such as Interpersonal anxiety (Onwuegbuzie, 1997a); Lack of support (Jerabek, Meyer, & Kordinak, 2001); Staff factor (Shoham & Mizrachi, 2001); Barriers concerning staff (Van Kampen, 2004) and Staff approachability (Anwar, Al-Kandari, & Al-Qallaf, 2004). Bostick (1992) noted that Barrier with the staff is the most prevalent factor among other factors.
The second notable dimension in her scale was anxiety associated with students’ unfamiliarity with the library and their lack of knowledge of how to use the library, how it is organized and how to locate the needed materials, known is named as Knowledge of the library. Similar components appeared in the other scales using varied terms, such as Location anxiety (Onwuegbuzie, 1997a), Knowledge factor (Shoham & Mizrachi, 2001), Insecurity factor, related to concern with confidence of using the library (Jerabek, Meyer, & Kordinak, 2001), Importance of understanding how to use the library (Van Kampen, 2004).

The third component, known as Mechanical Barrier, refers to anxiety caused by difficulties in operating some machines in the library, like photocopiers, change machine, that prevent students from obtaining resources they need. Onwuegbuzie (1997a), and Jerabek, Meyer and Kordinak (2001) referred to this factor as Mechanical anxiety, and Technical/Procedural frustration respectively. With the advancement of computer technologies and their use in the library, some researcher related this factor to difficulties with computers and related technology such as Library computer comfort factor (Shoham & Mizrachi, 2001), and Comfort level with technology (Van Kampen, 2004).

Anxiety caused by feeling of being unwelcomed, threatened, and uncomfortable inside the library is the fourth dimension of library anxiety. Bostick (1992) referred to this as Comfort with the library, while Onwuegbuzie,(1997a), Jerabek, Meyer and Kordinak (2001), and Van Kampen (2004) referred to it as, Perceived comfort with the library, Comfort level while inside the library building, and Environment factor, respectively. Other researchers
proposed comfort factors that differ in some way from Bostick’s (1992) such as Physical comfort (Shoham & Mizrachi, 2001), Uncomfortable with library regulations; Policies/Hours factors (Shoham & Mizrachi, 2001).

Bostick’s (1992) final factor involved anxiety that stems from students’ negative perceptions about their abilities and research and library skills compared to others, known as Affective barrier (Bostick, 1992). These inner negative thoughts and perceptions were found to increase student’s anxiety, and prevent them from asking for help as to hide their inadequacy. Other researchers such as Onwuegbuzie (1997a), and Anwer, Al-Kandari and Al-Qallaf, (2004) referred to it as Perceived library competence, and Feelings of inadequacy, respectively.

Other dimensions involve anxiety caused by lack of desired materials or resources in the library collection known as Resources anxiety (Onwuegbuzie, 1997a) and Resources factor (Shoham & Mizrachi, 2001). Other dimensions of anxiety result from the Information research process and general Library Anxiety (Van Kampen, 2004), and anxiety caused by using collection in language that is different than users’ native language, which is known as Language factor (Shoham & Mizrachi, 2001).

Further exploration of the phenomenon involves investigating the characteristics of library anxious students and antecedents that can predict library anxiety. Onwuegbuzie (1997a) notified that anxious students have reported emotional symptoms such as “apprehension, frustration, and learned helplessness. Onwuegbuzie, Jiao, and Bostick (2004) stated that “high level of library anxiety is characterized by tension, uneasiness, negative self-defeating thoughts, feelings of uncertainty, and mental disorganization”. Jiao,
Onwuegbuzie and Lichtenstein (1996) found that the library anxious student tended to be young, male, in their first year of study, who did not speak English as their native language, who has high level of academic achievement, who was engaged in either part-time or full-time employment, and who infrequently visited the library.

Jiao, Onwuegbuzie and Lichtenstein (1996) and Jiao and Onwuegbuzie (1997) found that young students exhibit higher library anxiety than older students. This was supported by Shoham and Mizrachi (2001) and Ben Omran (2001). However it contradicted Bostick (1992) who found that 50 year old graduate students are more anxious than younger students.

Jiao, Onwuegbuzie and Lichtenstein (1996) and Jiao and Onwuegbuzie (1997) also found that male students are more anxious than female students which is consistent with Jacobson (1991), and supported by Anwar, Al-Kandari and Al-Qallaf (2004). However, it was not consistent with Mech and Brook (1995) who found no gender differences in library anxiety. In addition, these results were questioned by Shoham and Mizrachi (2001), and Brown, Weingart, Johnson, and Dance (2004) who found females to be more anxious.

Jiao, Onwuegbuzie and Lichtenstein (1996) and Jiao and Onwuegbuzie (1997) revealed that level of library anxiety declines as the year of the study increases. This finding confirmed the finding of Mech and Brook (1995), and it was supported by Shoham and Mizrachi (2001).
Students who use library collection in a language that differs from their native language become more anxious than students who are using the collection of their own language, as found by Jiao, Onwuegbuzie and Lichtenstein (1996), Jiao and Onwuegbuzie (1997), Shoham and Mizrachi (2001), and Anwar, Al-Kandari and Al-Qallaf (2004).

In addition Jiao, Onwuegbuzie and Lichtenstein (1996) and Jiao and Onwuegbuzie (1997) found that students who work part time or full time job are more anxious than other students. The same researchers found that students with higher grade point average tended to be more anxious than others. Finally Jiao, Onwuegbuzie and Lichtenstein (1996) and Jiao and Onwuegbuzie (1997) discussed the important relation between frequency of library use and library anxiety. The researchers found that more anxious students used the library the least compared to low anxious students. Carlisle (2004) noticed that library avoidance behaviour is one of the library anxiety negative effects. Andrews (1991) studied students’ library use problems and revealed problems with the computer catalogue, problems of locating books on the shelves, lack of knowledge about floor layout and confusion about the location of different materials. Andrew’s (1993) study also explored that students exhibited feelings of library anxiety, and many of them were reluctant to ask librarians for help, which support Mellon’s study. Sulivan-Windle (1993) explored aspects within the library that prevent students from using it effectively. She found that difficulty with gaining access to the library collection was one of the main frustrating problems that students encounter in the library. Similarly, Balanli, Ozturk, Vural and Kucukcan (2007) noted that insufficient library use is mainly
related to difficulties in gaining access to the needed information, and insufficient library collection.

As researchers realized the negative effects of library anxiety on library use and utilization, they moved forward to study the effects of this construct on student’s academic performance. Onwuegbuzie (1997a) was the first study to propose library anxiety as an academic-related construct. The study investigated the effect of statistic anxiety, composition anxiety, and library anxiety on the anxiety encounter students when they are their writing research proposal, known as Research Proposal Writing Anxiety (RPW). The study revealed that library anxiety is one of the components of research proposal writing anxiety. Onwuegbuzie (1997a) found that students’ with high level of library anxiety tended to produce low quality proposal.

In more exploration of the academic effect of library anxiety, it was found that library anxiety is associated with academic procrastination. Onwuegbuzie, Jiao and Bostick (2004) noted that high level of library anxiety may hinder graduate from utilizing the library and accordingly prevent them from finishing their dissertation. Onwuegbuzie and Jiao (2000) found a significant correlation between academic procrastination and the following dimensions of library anxiety, Affective barriers, Comfort with the library, and Mechanical barriers.

Research on library anxiety originated from the United States and most of the descriptions were related to American college and graduate students, except for some researchers which
explored this construct among international students and fewer studies that explored it in other countries.

Jiao and Onwuegbuzie (1999a) noted that international students who come from developing countries face new and advanced library environment which differ from the one in their countries. Facing new technology exposed those students to library anxiety. Jiao and Onwuegbuzie’s (1999a) study revealed that Mechanical barrier is the greater source of library anxiety among international students. Jiao, Onwuegbuzie and Bostick (2004) conducted a study to examine whether racial differences predict library anxiety. The study found that African American students were less anxious than Caucasian American. In a replicated study, Jiao, Onwuegbuzie and Bostick (2006), revealed the same result notifying that racial differences can predict library anxiety.

Shoham and Mizrachi (2001) who used a modified Hebrew version of Bostick’s (1992) Library Anxiety Scale (LAS) found evidence of library anxiety among Israeli undergraduate students. There study proposed new component of the library anxiety, Policies/Hours and Language factors which appeared in literature for the first time indicating regional differences. This study also found that female students are more anxious than male students which may be a sign of these regional differences.

Anwar, Al-Kandari and Al-Qallaf (2004), who used a modified version of LAS found signs of library anxiety among Kuwaiti undergraduate students, however they noted that the instrument is not suitable for Kuwait culture calling for new LASs that suit different cultures.
1.2 Introduction to the Problem

Academic libraries play an important role in the academic process by supporting the academic mission of the parent institution. In order to accomplish this role they need sufficient financial resources and to be equipped with qualified human resources. Unfortunately this is not the situation in the developing countries, where academic libraries, as well as other information related institutions receive less interest or concern. Tsigemelak (2006) expressed the situation of libraries in African which is applicable to Sudan case, he stated,

“In Africa, people suffer from all kinds of deprivations, ranging from acute food shortage, malnutrition, illiteracy, wars, injustices and human rights denial to dictatorship. Indeed Africa is the most deprived region in the world and thus information is needed in the continent. Unfortunately, the reverse is the case. According to L.O.Aina 1994, information occupies the lowest stratum in the hierarchy of African priorities. Neil (1991) mentioned that the response of the people to libraries in Africa has been one of sceptism and apathy and librarians have appeared to have little offer. Accordingly African governments have lost enthusiasm for library services. The training of African information worker has equipped him with traditional library skills of cataloguing, classification, reference etc devoted mainly to printed form” (Tsigemelak, 2006).

Sudan University of Science & Technology (SUST) is the largest technological university in Sudan, and is a major research university, home to about 65000 students in more than 200 academic programs at both undergraduate and postgraduate levels, 1000 faculty and 1500 supporting staff. The university does not provide a main library building, but provides
its students and faculty with branch academic libraries. SUST Academic libraries are supporting the mission of Sudan University of Science and Technology in providing educational programs in applied knowledge in the field of basic engineering, medical sciences, and humanities and natural resources, as well as supporting its role in providing scientific research of practical nature to sustained development in Sudan (SUST’s Mission at www.sustech.edu). In order to achieve this objective, SUST academic libraries provide its student users with collection which is mainly in the form of text and reference books. However, these libraries are facing many limitations concerning the insufficient spaces and buildings, insufficient number of trained staff, lack of quality and amount of services they provide to their users, lack of sufficient budgets for acquisition and collection development, absence of recent periodicals and journals, shortage of photocopy and computer services, and absence of an organized circulation service (Niyonsenga & Bizimana, 1996).

Sudanese university students enter the university without prior experience of library use due to the absence of school libraries in Sudan. Although SUST branch academic libraries are small in size, using the library is to the majority, a new experience for Sudanese first year students. When those students are required to do their assignment or library research they feel unclear about these assignments. In addition to that, those students do not receive library instruction programme, except for brief orientation about the library in their first week at the university (some students do not attend this programme). As a result, they become unaware of the role that academic library or librarian plays in providing effective assistance to their academic related task. Oberman and Linton (1982) noted, as stated in Bostick (1992), “library search is a problem-solving task requiring knowledge of tools and bibliographic structure, as well as the ability to construct a strategy for locating
information”. Students often become confused about how to begin their research in the library and what to do next if they could not locate the needed information (Mellon, 1986a). Consequently, this state generates feelings of anxiety, frustration, and lack of confidence in their ability to conduct a research (Bostick, 1992). Onwuegbuzie, Jiao and Bosticks, (2004) indicated that library anxiety may arise from lack of prior experience to academic libraries and lack of confidence in one’s ability to conduct a research.

1.3 Statement of the Problem

Previous research which was mostly conducted in the United States found that library anxiety is a prevalent phenomenon among American college students (Mellon, 1986a, and Bostick, 1992) especially those coming from relatively small school libraries, where they become overwhelmed by the large size of the academic library which housed the collections over many floors. Those new undergraduate students were often required to do their assignment, which involved conducting a library research, and submitting them within a specific period of time. It is at this stage that students frequently felt lost. Firstly, students did not know how to begin their search (anxiety related to information search process). Secondly, they lacked adequate knowledge of the library (Bostick, 1992), as they are confused by the layout of floors and the collections which were spread over the various floors. Thirdly, when those students failed to locate the resource they need they would feel confused and did not know what to do. (Mellon, 1986b)

Lost people usually ask for directions. However, the lost confused students are an exception. They do not approach librarians, who are there to help, because they held some
negative perceptions. Firstly, they perceive that their own library skills as inadequate compared to their peers who seem not to have problems in locating what they need (Mellon, 1986b). This is known in the literature as Affective barrier Bostick (1992). As a result, they feel shameful or blame themselves and developing self-defeating thoughts. Secondly, they perceive librarian as intimidating, uncooperative, and unapproachable. In addition, they also perceive librarians as someone knowledgeable who is busy in doing other more important work, and they subsequently become reluctant to ask the librarians for help. Thirdly, the students perceive that the questions they will ask may sound simple or stupid to the librarian, and hence may reveal their ignorance (Mellon, 1986b). This problem with librarian is known in the literature as Barrier with the staff (Bostick, 1992).

Those students feel uncomfortable inside the library; they perceive the library as unwelcoming and insecure, where crimes could take place. This feeling is defined as Comfort with the library as a place (Bostick, 1992).

If those students manage to use the research tools but find out that the needed material is missing, hidden, miss-shelved or no longer in the library collection, they feel anxious, a state literature refer to as Resources anxiety (Onwuegbuzie, 1997a).

If a student manages to locate the resources he needs and want for example to photocopy it, and is unable to do so because the photocopy machine is out of order, this student would encounter anxiety known as Mechanical barrier (Bosticks, 1992).

American university students showed behaviours of library avoidance which was found to affect their library use and consequently affect their academic performance.
The above description is related to anxiety feelings among American students who are using a large well equipped academic library. As such considerations for regional and cultural differences are needed when studying this phenomenon in different countries, especially developing countries, which face many challenges in the areas of library and information services and resources.

Sudanese students encounter anxiety when they are using their academic libraries. However, there is a lack of knowledge about the nature, components, characteristics, variables, and effects of this phenomenon among Sudanese students. This study therefore, aims to explore the library anxiety situations amongst Sudanese students and test the constructs derived.

1.4 Purpose of the Study

The main objective of the study is to investigate the library anxiety phenomenon among Sudanese university students and whether it hinders them from utilizing the library’s facilities, services and resources. The study will cover the problem from two main perspectives (a) the state of library anxiety and library avoidance, (b) the factors that are related to this state. The following are the specific objectives of the study:

(1) In terms of the state of library anxiety, the study aims to:

(a) find out whether library anxiety exist among Sudan University of Science and Technology students who are using the academic library to write their first research paper, and subsequently hopes to;
(b) explore and describe the experiences, emotions and behavioural attributes of library anxiety.

(2) In terms of library anxiety factors, the study aims to explore factors that contribute to feelings of library anxiety among Sudanese university students.

1.5 Exploratory Research Questions

(1) How do students feel when they are using the library for writing research paper?

(2) What are the problems they encounter inside the library and how do they feel about them.

(3) What do they think about the library staff, services, building, and collection?

1.6 Quantitative Research Questions

(1) What are the factors that underlie the library anxiety construct among Sudanese university students when they are using the academic library for writing their research paper?

(2) The state of library anxiety

Do students of Sudan university of Science and Technology encounter feelings of library anxiety when they are using the academic library for writing their research paper?
(3) Library Environment

a. Do students of Sudan university of Science and Technology experience negative perceptions towards their academic library environment when they are using it for writing their first research paper?

b. What items are related to library environment that negatively contribute to their feelings of anxiety?

(4) Affective Barriers

a. Do students of Sudan university of Science and Technology experience affective barriers when they are using it for writing their first research paper?

b. What items are related to affective barriers that negatively contribute to their feelings of anxiety?

(5) Peer Behaviours

a. Do students of Sudan university of Science and Technology experience negative perceptions towards their peers’ behaviours when they are using it for writing their first research paper?

b. What items are related to peers’ behaviours that negatively contribute to their feelings of library anxiety?
(6) Library Services

a. Do students of Sudan university of Science and Technology experience negative perceptions towards their academic library services when they are using it for writing their first research paper?

b. What items are related to library services that negatively contribute to their feelings of anxiety?

(7) Library Collection

a. Do students of Sudan university of Science and Technology experience negative perceptions towards their academic library collection when they are using it for writing their first research paper?

b. What items are related to library collection that negatively contribute to their feelings of anxiety?

(8) Library Regulation

a. Do students of Sudan university of Science and Technology experience negative perceptions towards their academic library regulations when they are using it for writing their first research paper?

b. What items are related to library regulations that negatively contribute to their feelings of anxiety?
(9) Cognitive Barriers

a. Do students of Sudan university of Science and Technology experience cognitive barriers when they are using it for writing their first research paper?

b. What items are related to cognitive barriers that negatively contribute to their feelings of anxiety?

1.7. Hypotheses

1.7.1 (a) There are statistically significant differences in students’ negative perceptions towards their academic library environment between students from faculties of Business, Education, Agriculture, Computer Sciences & IT, Languages, Fine and Applied Art, and Petroleum

1.7.1 (b) There are statistically significant differences in students’ negative perceptions towards their academic library environment between males and female.

1.7.1 (c) There are statistically significant differences in students’ negative perceptions towards their academic library environment between students whose age are between 17-19, 20-22, and 23-25.

1.7.1 (d) There are statistically significant differences in students’ negative perceptions towards their academic library environment between students in the 2nd, 3rd, and fourth year.
1.7.1 (e) There are statistically significant differences in students’ negative perceptions towards their academic library environment between students who reported using the academic library always, often, sometimes, rarely, and never.

1.7.1 (f) There are statistically significant differences in students’ negative perceptions towards their academic library environment between students who reported using the academic library for studying a subject, writing research paper, borrowing a book, copying notes of a subject, photocopying, seeking staffs’ help, and meeting peers.

1.7.2 (a) There are statistically significant differences in affective barriers between students from faculties of Business, Education, Agriculture, Computer Sciences & IT, Languages, Fine and Applied Art, and Petroleum.

1.7.2 (b) There are statistically significant differences in affective barriers between males and female?

1.7.2 (c) There are statistically significant differences in students’ affective barriers between students whose age are between 17-19, 20-22, and 23-25.

1.7.2 (d) There are statistically significant differences in affective barriers between students in the 2nd, 3rd, and fourth year.
1.7.2 (e) There are statistically significant differences in affective barriers between students who reported using the academic library always, often, sometimes, rarely, and never.

1.7.2 (f) There are statistically significant differences in affective barriers between students who reported using the academic library for studying a subject, writing research paper, borrowing a book, copying notes of a subject, photocopying, seeking staffs’ help, and meeting peers.

1.7.3 (a) There are statistically significant differences in students’ negative perceptions towards peers’ behaviours between students from faculties of Business, Education, Agriculture, Computer Sciences & IT, Languages, Fine and Applied Art, and Petroleum.

1.7.3 (b) There are statistically significant differences in students’ negative perceptions towards their peers’ behaviours between males and female.

1.7.3 (c) There are statistically significant differences in students’ negative perceptions towards their peers’ behaviours between students whose age are between 17-19, 20-22, and 23-25.

1.7.3 (d) There are statistically significant differences in students’ negative perceptions towards their peers’ behaviours between students in the 2\textsuperscript{nd}, 3\textsuperscript{rd}, and fourth year.
1.7.3 (e) There are statistically significant differences in students’ negative perceptions towards their peers’ behaviour between students who reported using the academic library always, often, sometimes, rarely, and never.

1.7.3 (f) There are statistically significant differences in students’ negative perceptions towards their peers’ behaviours between students who reported using the academic library for studying a subject, writing research paper, borrowing a book, copying notes of a subject, photocopying, seeking staffs’ help, and meeting peers.

1.7.4 (a) There are statistically significant differences in students’ negative perceptions towards their academic library services between students from faculties of Business, Education, Agriculture, Computer Sciences & IT, Languages, Fine and Applied Art, and Petroleum.

1.7.4 (b) There are statistically significant differences in students’ negative perceptions towards their academic library services between males and females.

1.7.4 (c) There are statistically significant differences in students’ negative perceptions towards their academic library services between students whose age are between 17-19, 20-22, and 23-25.

1.7.4 (d) There are statistically significant differences in students’ negative perceptions towards their academic library services between students in the 2\textsuperscript{nd}, 3\textsuperscript{rd}, and fourth year?
1.7.4 (e) There are statistically significant differences in students’ negative perceptions towards their academic library services between students who reported using the academic library always, often, sometimes, rarely, and never.

1.7.4 (f) There are statistically significant differences in students’ negative perceptions towards their academic library services between students who reported using the academic library for studying a subject, writing research paper, borrowing a book, copying notes of a subject, photocopying, seeking staffs’ help, and meeting peers.

1.7.5 (a) There are statistically significant differences in students’ negative perceptions towards their academic library collection between students from faculties of Business, Education, Agriculture, Computer Sciences & IT, Languages, Fine and Applied Art, and Petroleum.

1.7.5 (b) There are statistically significant differences in students’ negative perceptions towards their academic library collections between males and female.

1.7.5 (c) There are statistically significant differences in students’ negative perceptions towards their academic library collections between students whose age are between 17-19, 20-22, and 23-25.
1.7.5 (d) There are statistically significant differences in students’ negative perceptions towards their academic library collections between students in the 2nd, 3rd, and fourth year.

1.7.5 (e) There are statistically significant differences in students’ negative perceptions towards their academic library collections between students who reported using the academic library always, often, sometimes, rarely, and never.

1.7.5 (f) There are statistically significant differences in students’ negative perceptions towards their academic library collection between students who reported using the academic library for studying a subject, writing research paper, borrowing a book, copying notes of a subject, photocopying, seeking staffs’ help, and meeting peers.

1.7.6 (a) There are statistically significant differences in students’ negative perceptions towards their academic library regulations between students from faculties of Business, Education, Agriculture, Computer Sciences & IT, Languages, Fine and Applied Art, and Petroleum.

1.7.6 (b) There are statistically significant differences in students’ negative perceptions towards their academic library regulation between males and female.
1.7.6 (c) There are statistically significant differences in students’ negative perceptions towards their academic library regulations between students whose age are between 17-19, 20-22, and 23-25.

1.7.6 (d) There are statistically significant differences in students’ negative perceptions towards their academic library regulations between students in the 2\(^{nd}\), 3\(^{rd}\), and fourth year.

1.7.6 (e) There are statistically significant differences in students’ negative perceptions towards their academic library regulations between students who reported using the academic library always, often, sometimes, rarely, and never.

1.7.6 (f) There are statistically significant differences in students’ negative perceptions towards their academic library regulations between students who reported using the academic library for studying a subject, writing research paper, borrowing a book, copying notes of a subject, photocopying, seeking staffs’ help, and meeting peers.

1.7.7 (a) There are statistically significant differences in cognitive barriers between students from faculties of Business, Education, Agriculture, Computer Sciences & IT, Languages, Fine and Applied Art, and Petroleum.

1.7.7 (b) There are statistically significant differences in students’ cognitive barriers between males and female?
1.7.7 (c) There are statistically significant differences in students’ cognitive barriers between students whose ages are between 17-19, 20-22, and 23-25.

1.7.7 (d) There are statistically significant differences in students’ cognitive barriers between students in the 2\textsuperscript{nd}, 3\textsuperscript{rd}, and fourth year.

1.7.7 (e) There are statistically significant differences in students’ cognitive barriers between students who reported using the academic library always, often, sometimes, rarely, and never.

1.7.7 (f) There are statistically significant differences in students’ cognitive barriers between students who reported using the academic library for studying a subject, writing research paper, borrowing a book, copying notes of a subject, photocopying, seeking staffs’ help, and meeting peers.

1.8 Significance of the Study

This study will be an additional and important contribution to knowledge on library anxiety research. It is the first study in Africa to investigate the library anxiety phenomenon among university students. The study will provide new dimension of library anxiety construct since it is conducted in a different library environment. These new dimensions will assist in developing a holistic picture of the phenomenon.

The Sudanese library anxiety construct proposed in this study will provide rich information about various barriers to library use. It will be the basis for future researches that focus on students’ cognitive, environmental, and situational barriers to library use.

The current study will enrich knowledge on students’ library use problems in Sudan as well as other African developing countries that share the same conditions. This will significantly
assist in designing effective library instruction programmes and library anxiety reduction or intervention programmes.

The information provided in this study is certainly beneficial in increasing librarians’ awareness, in Sudan and similar countries, to the existence and the threat of library anxiety in the academic library setting. This will potentially assist in reducing or overcoming this phenomenon.

Finally, the study is important as it will increase international awareness about poor conditions of academic libraries in Sudan. The lack of research publishing in this area has deprived Sudan, as a developing country, from the opportunity to attract attention and support of international funders in the areas of library field.

1.9. Organization of this Study

The main objective of this study is to explore library anxiety phenomenon among Sudanese university student. In order to achieve this objective, the study utilized a mixed method approach. The study was organized as follows:

Chapter 2 provides an introductory review of general anxiety and other anxieties that influence the emergent of the library anxiety. The chapter also provides an extensive review of the origin of anxiety theory and its development as well as efforts to identify its components and measure it quantitatively. Characteristics, negative effects, variables that predict or influence this construct were also provided. As the study is conducted in a different culture, studies associated with the phenomenon among different cultural group were reviewed.
Chapter 3 provides comprehensive information about the two methods conducted in the study in sequence. It firstly discusses the design, sampling, data collection and data analysis methods utilized in the qualitative approach (phase 1) which aim to explore themes of library anxiety among Sudanese university students. This was followed by describing the procedures of the quantitative approach (phase 2) which was based on the results of the first phase. The second phase objective was to strengthen the findings of the first study and provide more clarification about the construct.

Chapter 4 presents the analysis of the qualitative data (diaries of students), which introduced the reader to the development of the Sudanese Library Anxiety Construct (SULAC) which describes the library anxiety among Sudanese university students and associated components.

Chapter 5 provides the analysis and findings of the quantitative data collection instrument (survey) which was design based on the findings of phase one. The chapter introduces the reader to the factors, resulted from the statistical analysis of the data that contribute significantly to library anxiety among Sudanese student.

Chapter 6 discusses the results of the two methods in order to strengthen and provide holistic image of the library anxiety construct among Sudanese university students. Contribution of the study to the knowledge of library anxiety is presented as well as recommendations for future research.