

# Exploring library anxiety among Sudanese university students

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## ABSTRACT

*Library anxiety is one of the psychological barriers that encounter students when they are performing a library task. This study explores library anxiety among 51 Sudanese university students using diary method for data collection. The finding indicates that library anxiety among Sudanese university students are manifested into five dimensions, namely; (a) Negative perceptions towards library environment, (b) Negative perceptions towards peer students, (c) Negative perceptions towards library staff, (d) Negative perceptions towards library services, and (e) Psychological barriers. Details of statements under the dimensions highlight the issues that are unique and not covered by previous studies in library anxiety.*

**Keywords:** Library anxiety; Library avoidance; Library phobia; Academic libraries; Diary method

## INTRODUCTION

The role of the library is to support students' information needs by providing relevant resources and services effectively. At some point of their university education, students will find it necessary to use the library to access and retrieve information for either research or learning needs. This is a problem for some students who feel that they do not have the skills and experience in using and finding their own way around the resources and services that a library provides (Grimes and Charters 2000). This inadequacies erode students self confidence and results in a state of anxiousness when they are in the library (Jiao and Onwuegbuzie 1997, 1998, 1999a, 1999b). Jiao and Onwuegbuzie (1997) defined library anxiety as an unpleasant or uncomfortable emotion characterized by worry, confusion, tension and helplessness, which occurs when a student is in the library setting. These emotions have cognitive, affective psychological and behavioral ramifications. Mellon (1986) was the first to introduce the concept of library anxiety. Applying a qualitative analysis method to personal writing (search journals, diary-like entries, and in class essays) of 6000 students over a two-year period, she found that 75 to 85 percent of the students describe their initial feelings in terms of fear such as scary, overpowering, lost, helpless, confused, fear of unknown. Some of the students described their fears as "phobia." This phobia caused them to describe library use as a "nightmare." These students faced such feeling at the early stage of researching and writing their papers or research assignments. Mellon (1986) found this state of anxiety is similarly exhibited by students who experienced math and statistics anxiety, stating that, "descriptions such as these led to a formulation of a grounded theory that when confronted with the need to

gather information in the library for their first research paper, many students become so anxious that they are unable to approach the problem logically or effectively”.

Studies in library anxiety have implied that anxiety feelings combined with lack of library skills, and reluctance to ask for librarians’ help may lead to library avoidance behaviours among university students (Van Kampen 2004). Avoidance in this context refers to refraining or delaying to go to the library, or when in the library, wanting to leave it as soon as it is possible (Miller, Rudd and Rudd 1986; Van Kampen 2004). Onwuegbuzie, Jiao, and Bostick’s (2004) study indicated that the highly anxious students use the library the least and tended to avoid using the library. Avoidance behaviour was also targeted directed to staff as the anxious students do not want to ask for staff’s help for fear of exposing their inadequate searching skills in the library (Mellon 1986). Although previous studies have considered the effect of library anxiety on developing avoidance behaviours among university student users, no study have studied this relation (Carlisle 2004).

The resultant symptomatic behaviours and manifestations of anxiety are equated to a state of procrastination (Onwuegbuzie and Jiao 2000), library avoidance (Jiao and Onwuegbuzie 1997) and library anxiety behaviours (Mellon 1986), tension, and fear, a state of uncertainty, helplessness, self defeatous thoughts (Jiao and Onwuegbuzie 1997, 1999b), carelessness and overlooking signage (Keefer 1993), reluctance to ask for help (Kulthau, 1991) and giving up their search before completing their tasks in the library (Jiao and Onwuegbuzie 1997). Constructs that have been found to be related to library anxiety include respondents demographic background, race, gender, age, personality, perfectionism, procrastination, study habits and discussed by Onwuegbuzie, Jiao and Bostick (2004).

Recent studies have delved deeper into finding out what may cause anxiety. An issue expounded is the possible relationship between library anxiety and social interdependence orientations of students. Jiao and Onwuegbuzie (2002) compared scores on a 43 item instrument Library Anxiety Scale (LAS) developed by Bostik (1992) with a 22-item five point Likert Social Interdependence Scale (SIS) developed by Johnson and Norem-Hebeisen (1979). The SIS measures students’ cooperativeness, competitive and individualistic perceptions. The study found that cooperative dimension was related significantly to anxiety traits especially barriers with staff, comfort in the library and knowledge of the library. This means that students who scored high on cooperative orientations tended to score low on library anxiety constructs. This results was similarly found by Onwuegbuzie and DeRos-Voseles (2001) who indicated that students who were placed in cooperative learning groups manage to reduce their level of library anxiety. Students found solace and comfort in their group support and were aware of the reduction of their anxiety. Johnson and Norem-Hebeisen (1979) proposed that cooperation increased when positive interdependence exist among group members and this cooperativeness can be promoted not only among students but also between students and librarians. Students who were not cooperative would seek less librarians’ help on how to utilize effectively library resources and services.

Information literacy instruction has also been indicated to help reduce library anxiety (Jiao and Onwuegbuzie, 2001, Battle, 2004). This is especially true among international students, who came from culturally different backgrounds, have different needs, values and language (Burns 1991; Patton 2002; Mu 2007). Patton’s study of international students at the University of Canterbury found that a well planned library orientation programme and research skills instructions could help reduce the academic stress amongst

international students. Curry and Copeman (2005) proposed that early library orientation programmes must be followed up with instructions on catalogue and database searching sessions later so as not to inundate new international students with too much information and hence help reduce anxiety.

Another construct recently explored is the relationship between critical thinking ability and library anxiety. People who think more critically are open minded, flexible, focused in inquiry and work out complex problems in a planned manner (Glaser 1941). Onwuegbuzie, Jiao and Bostick (2004) suggested that library anxiety hinders students from effectively searching, receiving and processing information they encounter in the library. This interference impedes creative thinking. Kwon, Onwuegbuzie, and Alexander (2007) studied 170 graduate students in the College of Education at two universities in the southeast United States enrolled in a research methodology course. Respondents were administered the California Critical Thinking Disposition Inventory (CCTDI) (developed by Facione and Facione 1992) and Library Anxiety Scale (LAS) (developed by Bostick 1992). The study found a multivariate relationship between critical thinking disposition and library anxiety among graduate students. The association found was negative indicating that weak scores in critical thinking were associated with high levels of library anxiety, especially in terms of self confidence, inquisitiveness and systematicity. A more recent study by Waytowich, Onwuegbuzie and Jiao (2006) and Jiao, Onwuegbuzie and Waytowich (2008) found that graduate students who committed the highest number of citation errors tended to indicate the highest levels of library anxiety, especially with staff, affective barriers and comfort in the library.

Anxious about using computers or lack of skills in using them has been found to be related to library anxiety. Jiao and Onwuegbuzie (2004) studied 94 African American graduates enrolled in the College of Education in Eastern United States. The respondents were administered the computer Attitude Scale (CAS) developed by Loyd and Gressard (1984) and Bostick's Library Anxiety Scale (1992). They found that the two scales shared 40.82 per cent of the common variance and significant relationship between computer attitudes and the library anxiety scales. This finding was similar to the findings by Mizrachi (2000); Shoham and Mizrachi (2001) and Jerabek, Meyer, and Kordinak (2001). Furthermore, Collins and Veal (2004) found that off campus adult learners' perception of their information retrieval skills is related to their anxiety levels when using the library and Internet resources. The study comprised 143 respondents who were taking the Master of Arts in Education in a private university. The respondents were administered Bostick's LAS (1992) and the Attitude Toward Educational Use of the Internet (ATEUI) instrument developed by Duggan, Hess, Morgan, Kim and Wilson (2001). The study found adult learners levels of anxiety are related to their self perception of their abilities to access library resources, to the physical comfort in the library environment, their interaction with library staff and knowledge of the library.

Discussing sources of library anxiety, Mellon (1986) proposed four reasons for feeling lost in the library; firstly, the large size of the academic library was overwhelming to some of the students who were used to school libraries which are relatively smaller in size; secondly, lack of knowledge of where things are located which cause confusion and helplessness as some students did not know whom to ask for help; thirdly, not knowing how to begin the research process, and finally, not knowing what to do. Furthermore, she found that anxious students felt that their own library use skills are inadequate compared to their peers and they considered this situation shameful. In addition, they avoided asking questions to librarians because it would reveal their inadequacy. Onwuegbuzie, Jiao and

Bostick (2004), Bosticks (1992), Onwuegbuzie (1997), and Shoham, and Mizrachi (2001), proposed factors that can measure levels of library anxiety, namely (a) “Barriers with staff” (Bostick, 1992), or “Interpersonal anxiety” (Onwuegbuzie 1997), or “Staff factor” (Shoham and Mizrachi 2001), which refers to students’ perception that librarians and other library staff are intimidating, unapproachable, and too busy to provide assistance in using the library; (b) “Affective barriers” (Bostick 1992) or “Perceived library competence” (Onwuegbuzie 1997), which refers to students’ perception that their library skills are inadequate compare to other students; (c) “Comfort with the library” (Bostick 1992), or “Perceived comfort with the library” (Onwuegbuzie 1997) which refers to how safe, welcoming, and non-threatening students perceive the library to be; (d) “Knowledge of the library” (Bostick 1992), or “Location anxiety” (Onwuegbuzie 1997), or “Knowledge factor” (Shoham and Mizrachi 2001) which refers to how unfamiliar students feel they are with the library; (e) “Mechanical barriers” (Bostick 1992) or “Mechanical anxiety” (Onwuegbuzie 1997), which refers to feelings which emerge as a result of being unable to operate equipment in the library such as copy machines, computer printers, microfilm readers, and change machines”, (f) “Resources anxiety” (Onwuegbuzie 1997) or “Resource factor” (Shoham and Mizrachi 2001), which refers to the anxiety which stem from a student selecting an article or book from a library computer search that cannot be located in the library; (g) “Physical comfort factor” (Shoham and Mizrachi 2001) which measures how much the physical facility affects the students’ enjoyment of the library; (h) “Library computer comfort factor” (Shoham and Mizrachi 2001) which deals with perceived reliability of library computer facilities and the quality of direction for using them; (i) “Library policies/hours factor” (Shoham and Mizrachi 2001), which assesses the students’ attitudes towards library regulations and operating hours, and (j) “Language factor” (Shoham and Mizrachi 2001) which indicates the extent to which using English language searches and materials induces discomfort among students (Onwuegbuzie, Jiao, and Bostick 2004)

Concerning the negative effect of library anxiety, Carlisle (2007), who reviewed the literature of library anxiety, indicated that library anxiety has a “cognitive, affective, physiological, and behavioural ramifications”. She added “ Although no causal relationships have been identified, library anxiety has been linked to counter-productive behaviours such as unwillingness to attend library tours and information literacy classes; poor study habits; inability to approach library-related tasks in a logical and effective manner; search avoidance, lack of persistence and focus in searching for information or resources; reduced effectiveness of library instruction and information literacy; library avoidance; and reluctance to ask librarians for help”.

The review of the literature shows lack of library anxiety research in developing countries. The current study aims to explore this phenomenon in Sudan, an African developing country. It will help to increase our understanding of the nature and components of the phenomenon in different culture and different library setting.

## **OBJECTIVES**

This study aims to: (a) find out whether library anxiety and library avoidance exist among Sudan University of Science and Technology students who are using the academic library to write their first research paper, and; (b) explore and describe the experiences, emotions and behavioural attributes of library anxiety. The study involves extracting qualitative data from the diaries of a group of volunteering students, grouping variables under themes and

framing a model of constructs describing the manifestation of library anxiety and library avoidance.

## **METHODS AND PROCEDURES**

The present study deals with anxiety feelings amongst university students in Sudan and in order to get detailed expressions from participants about such feelings, the diary method is used so that participants could express themselves in their own words. Lewis and Massey (2008) described the diary as a technique that collect detailed information about people's behavior and events which describe aspects of their daily lives. Diaries provide an organized and structured way for participants to record their experiences and help provide a picture of the real situation (George 2006). Bolger, Davis and Rafaeli (2003) indicated that diaries reduce time between the occurrence of an experience and the accounting of this experience. This, in a way minimizes the act of retrospection, and as a result experiences are recorded as they naturally occur.

The diaries were small booklets intended to be light weight so they can be carried easily by students. Each diary consisted of two sections. The first section consisted of an appreciation note for participating in the study, an introduction to the study, explanation on how to record events (thoughts, feelings, and problems), explanation of terms, confidentiality agreement, and contact details. The second section contained spaces for demographic and contact information of the participants. The rest of the pages were opened for annotations under six open-ended questions that guide participants how to record related events. The open-ended questions are as follows:

- (a) How do you feel when you are using the library for writing research paper?
- (b) Express your feelings and thoughts when you are inside the library?
- (c) Describe problems you encounter in the library and how you feel about them.
- (d) What do you think about the library staff?
- (e) What do you think about the library services?
- (f) What do you think about library collections?

The population of this study were 1040 undergraduate students distributed among twelve faculties who studied at Sudan University of Science and Technology, and who were taking research method course for the first time. A convenient sample was selected due to the time limitation and researcher's accessibility to the population. Students from two faculties (Department of Management Information Systems, Faculty of Business Studies, and the Department of Library and Information Science, Faculty of Technology) were selected for the following reasons: (a) students were easily accessible to researchers, (b) this was an exploratory study and hence a convenient sample is acceptable, and (c) only minor variations was expected to exist among the population of the study, (which refers to all students at the Sudan University of Science and Technology students who are taking research methods course for the first time). Schensul and LeCompte (1999) stated, "Convenient samples should be used only when research is exploratory or when specific variations in the population have little effect on the phenomenon under study".

Dairies were distributed to 65 students (34 female, 31 male) who consented to participate comprising 47 students (19 females, 28 males) from the Department of Management Information Systems and 18 students (15 females, 3 males) from the Department of Library and Information Science. In the first meeting the researchers explained about the nature of the research, briefly introduced the origin and nature of the research problem, objectives

of the study, the importance of the study and a description of the types of information needed by the researchers, which included problems they face in the library when they are using it to write a research paper, descriptions of their feelings when they are inside the library, feelings towards the library staff, library collection, and library services. Fifty eight participants attended the first training session, two apologized, and five were absent. The training session did not exceed half an hour. The following students' quotes taken from Mellon's study (1986), were borrowed and shown as examples, and were translated into Arabic language.

"Using the library is a scary prospect, especially when I think about in-depth research. I know that research cannot be done without frequent visits to the library and I know that nothing in here will hurt me but it seems so vast and overpowering" (Onwuegbuzie, Jiao and Bostick 2004, p.162)

"When I first enter the library, I was terrified. I didn't know where anything was located or even who to ask to get some help. It was like being in a foreign country and unable to speak the language" (Onwuegbuzie, Jiao and Bostick 2004, p.162).

The purpose of providing such examples was to show Sudanese university students how to record their thoughts and feelings. Furthermore, the training gave participants an opportunity to clarify and ask questions. At the end of the training session the researchers divided the participants into groups so as to manage follow up meetings. Each participant was given a printed table of the dates and place of subsequent meetings so that participants could join in any meeting group convenient to them. Participants were given the option to write in either the standard or slang Arabic so that they could freely express themselves. Mellon (1986), termed this technique as "personal writing" or "journal writing" or "talking on paper" which puts less stress on style, grammar or spelling and allow participants to write with an unbroken flow of thoughts. This strategy was an advantage as it was noticed when examining the diaries that students who used slang Arabic filled more pages and wrote more freely than those who used standard Arabic. The researchers met each participant in four meetings to check their diary entries, commented on it, and answer any question raised by the participants. The meetings did not exceed 15 minutes each. Data from this study comprises diaries from 51 students (25 female and 26 males) which were completed and provided at least one event for each of the 6 open-ended question.

A qualitative content analysis approach was used to group annotations into themes. Previous library anxiety themes reported in published literature were also used to term themes from students' annotations. The researchers spent eleven months collecting data. This long engagement period helped to develop rapport and trust with participants. At the initial stages students were shy or hesitant to speak with the researcher. However, after two meetings the students became more confident and comfortable in presenting their ideas, became familiar with the research topic, provided more detailed and complete description in their diaries.

To ensure credibility, the results of the categorization of annotations was initially checked informally by two volunteering participants who agreed to be debriefers. The participants in turn asked the researcher about some terms that they did not understand, and after being explained they indicated that they have similar experiences but did not know how to define them. The final categorization of annotations was then subjected to member checking by 16 out of the 51 participants. It was difficult to get more participants for member checking because the diary analysis was completed in seven months after the end of the semester, when most students were on vacation. Comments from participants were noted. Some of the participants were amazed with the large number of categories that

were extracted that were related to their own case. All participants confirmed that most of the categories reflected their views. The issues that most participants agreed upon were categories and interpretations related to student's perceptions towards library environment, library staff, peer users, and library services. The researchers revised and edited the categories accordingly taking participants' comments under consideration.

Credibility is achieved by verifications from peer debriefers comprising two Associate Professors and one lecturer from the Department of Library and Information Science at Sudan University of Science and Technology. The peer debriefers were asked to review and provide feedback on the researchers' research design, interpretation, and conclusion to prevent any bias from the researcher's part. This approach helped clarify aspects of data analysis that may have been missed by the researchers. The debriefing process was utilized in four phases as follows.

- Prior to the data collection stage, the researchers conducted 3 separate informal meeting with the debriefers who reviewed the design of the study, the research questions, the sampling process, and the diary method which was used to collect the data. All suggestions for improvements made such as the rephrasing of some questions.
- Before starting the training and the follow up sessions for the participants, peer debriefers were asked to check on the approach used in the meetings and as a result improvements were made to the approach used to make participants understand the purpose of the study and facilitate them to provide the needed information.
- The researchers provided each debriefer with the text extracted from the diaries and a copy of all initial categories. Since all text were word processed, it was easy to provide each one of the debriefers with their own copy of data analysed. The researchers gave the peer debriefers three weeks to read and review the text from the diaries and the initial categories developed by the researchers. The peer debriefers provided their feedback in the form of written notes and suggestions.
- After the final categories were generated, the researchers provided the debriefers with his interpretation and final categories to review and comment. Through a formal debriefer meeting, feedback from debriefers were noted and acted upon.

## **RESULTS**

The contents of 51 students' diaries were used to find out whether library anxiety and library avoidance exists amongst Sudanese undergraduates. The contents of the diaries will be described according to the following five themes; (a) Negative Perceptions towards library environment, (b) Negative perception towards peers, (c) Negative perception towards library staff; (d) Negative perception towards library services; and (e) Psychological barriers.

### **Negative Perception Towards Library Environment**

The library environment in this context refers to library layout, arrangement, cleanliness, provision of security, library regulations, crowding, disturbances, poor lighting and ventilation, and availability of seating places.

#### **(a) Library Layout**

Annotations from students diaries indicated that library layout bothered some students, as 21.5% (11 diaries out 51) respondents indicated that the organization and tidiness of the

library has positively affected their psychological perception of the library. This is indicated by the following annotation in the diaries: "The library layout affects the behavior and the psychological state of students. When the library is tidy and organized properly, a student or a researcher would feel somehow relaxed". "Library should maintain its attractiveness to attract students, for example, bags should not be heaped and scattered at the entrance of the library". "The library atmosphere is unappealing, depressing and discouraging for study; I do not enter the library unless I intend to write a research paper". Library layout as a factor was reported by previous studies such Brown (2004) who indicated that environmental factors including décor, architecture, and arrangement of furniture does have impact on library usage. Onwuegbuzie, Jiao, and Bostick (2004), suggested that library layout and décor in large libraries can influence library anxiety, as students get confused about location of materials.

### **(b) Arrangement and Cleanness**

About 35.2% (18 out of 51) of respondents complained about the lack of arrangement and cleanliness inside the library. Some of the students explained that the lack of arrangement and organization in the library hinder them from using the library as indicated by the following comments: "Upon entering the library you see chaos in the arrangement of books and this is one of the main and important reasons why students tend not to enter the library". "Maintaining an arranged and organized library is an essential condition so that students can achieve the purpose of using the library". "I could achieve the aim for which I have come to the library for if, the following conditions are fulfilled ... the library is neat and tidy". "Cleanliness of the library facilitates studying and students can easily find what they need". This negative opinion is also reported by previous studies such as Onwuegbuzie and Jiao (1997), Watson (2001), and Simmonds and Andaleer (2001) who found that library usage was influenced by factors such as cleanliness, visual appeal, and the atmosphere of the library.

### **(c) Lack of Security**

About 29.4% (15 out of 51) of the students noted feeling anxious and tense inside the library due to their concern about their belongings, which they are required to leave outside the library. Students seemed worried when they have to leave their belongings outside the library building as there was no security guarantee. Often this made them go in and out of the library to check on their belongings which was placed on the ground near the library lockers. This insecurity applied to both items left outside and inside the library unattended, as indicated by these annotations: "One of the disadvantages of the library is lack of security (bags stealing)". "If a student leaves his properties on the table and goes outside the library for a while he may find, on his return, that some of his properties is missing". The feelings of lack of security revealed in the current study differ from those reported in previous published literature, where anxiety was related to the largeness of libraries, which provide possibilities for different types of crimes. Onwuegbuzie, Jiao, and Bostick (2004) noted that some users were concerned about their personal safety in the library. Shuman (1999) discussed different types of crimes that occurred in American libraries, including "homicide, rape, sexual assault, aggravate assault, simple assault (against staff members or other patrons), robbery, larceny, burglary, grand theft, personal property theft, harassment of the staff, obscene phone calls, nuisance calls, indecent exposure, pickpockets, elevator crime, or crimes committed by staff members".

### **(d) Shortage of Library Lockers**

Even though libraries provide lockers they are however insufficient. Library regulations prohibit students from entering the library with their bags. Insufficient lockers forced



students to leave their belongings outside the library as 25.4% (13 out of 51) of respondents expressed their concern in their notes. "Non availability of library lockers requires me to frequently step out of the library to check on my bag for fear of it being stolen". "One of the disadvantages of the library that makes it unattractive for students is that it does not bear any responsibility for the loss of students' properties. So a student is unable to find a secure place for his properties. Despite his need to enter the library, he fears that his property would be exposed to theft". "The library management pinned a notice that it is not responsible for the safety of any bag put outside the library lockers and yet do not provide sufficient number of lockers." "The number of lockers is few compared with student numbers". "The problem is that the number of library lockers is not sufficient and this forces the students to leave their bags and personal belongings outside the library as requested by library staffs who do not bear the responsibility for these properties, which are exposed to theft and tampering". The analysis of students' annotations indicated that students felt tense and worried about the shortage of library lockers, which forced them to leave their belongings outside the library unattended. One of the students wrote, "Sometimes I come enthusiastically to read but when I cannot find any lockers to keep my properties, I leave dissapointedly and swear not to come back again to the library. I am really angry with library management as they do not provide the satisfactory number of library lockers". In contrast, the availability of the library lockers made students feel secure and relax and more interested to stay longer inside the library as a student noted, "When I find a vacant library locker I become so eager and interested to stay longer in the library". This issue about the shortage of lockers is a factor which was not reported in previous literature on library anxiety.

#### **(e) Library Regulations**

About 33.3% (17 out of 51) of the students expressed dissatisfaction with library regulations such as library's opening and closing hours, prohibiting loans of more than one book or not allowing borrowing of reference materials and bringing reference books outside the library for photocopying after 3.00 p.m., as well as prohibiting students from entering the library with copied sheets or notes. A number of students criticized the closure of the library during the evenings. One student noted, "The library's working hours should be increased until 11:00 pm like the library of University of Khartoum". Another student mentioned, "The library is not open all day and this is considered a disadvantage and a shortcoming, because the researcher may need to use the library at any time but fails to do so because it is only open from 9:00 a.m. to 6:00 p.m.". Another student criticized the library regulations regarding the borrowing of books for photocopying. Sudan University of Science and Technology libraries allow students to borrow books just to photocopy and they are to return them as soon as possible. One student noted, "One of the disadvantages of the library that makes it unattractive to students is not allowing borrowings more than one reference book at a time, the library does not allow borrowing after 3:00 p.m. and students maybe busy with lectures during those times". A student criticized the regulations that forbid students to enter the library with photocopied sheets that he needs to read and he noted, "We need to read some of our photocopied notes inside the library, but we are not allowed to do so". The relationship between limited opening hours and library anxiety was also reported in previous studies (Shoham and Mizrachi 2001; Onwuegbuzie, Jiao, and Bostick 2004).

#### **(f) Crowding in the Library**

About 56.8% (29 out of 51) of the students complained about overcrowding in the library. One student noted, "Crowding is one of the disadvantages of the library". The following comments give emphasis to the crowding factor in Sudanese libraries: "Anxiety in the

library occurs due to the crowd inside the library and also due to failure to find an empty chair to sit on." "When I am inside a crowded library I feel upset and restless." "The library is sometimes full and there is no place to seat and this upsets me". Some students noted that over crowdedness in the library forces them to leave the library. "Due to the crowd in the library most of the students are forced to leave the library ...". "When the library is crowded it forces me to borrow the reference [resource] and leave". "I enter the library at the times of exams but I could not stay or concentrate due to the crowd and lack of chairs in the library". "It is observed that the library is always crowded during the examination period. This makes it hard to borrow books or use reference resources". The relationship between library anxiety and crowding in libraries was also reported by previous studies (Balanli, Ozturk, Vural, and Kucukcan 2007; Mellon 1986, 1988; and Onwuegbuzie, Jiao, and Bostick 2004).

### **(g) Disturbances Caused by Noise**

About 62.7% (32 out of 51) of the students complained about the disturbances and noise when they were in the library, which was caused by the sound of the library furniture and equipment being moved around or by noise resulted from students' conversations, and use of mobile phones. Some of the comments are as follows: "Noise inside the library is made by the dragging of furniture". "The noise of the photocopiers and the crowd of students around them disturbs me and affects my concentration". "Some seats make loud noises when moved, and so a plastic material has to be fixed to the legs of these seats". Some student complained about the disturbances made by the continual traffic of students entering and leaving the library, as one student remarked, "Constant entering and leaving by students into the library cause noise which affects my concentration". Another added, "One of the disturbances in the library is caused by the noise students make while looking for books and references". Some students noted the disturbances caused by conversations inside the library, among the students or library staff or between library staffs and their visitors, which resulted in anxiety, as indicated by the following annotations. "One thing that upsets me in the library is when some students come to the library only to chat. This disturbs me and the others and makes the library very noisy". "Once when I was in the library I was disturbed by students chatting among themselves or among library staffs". "The library staffs often prohibit student from talking loudly, but they chat loudly among themselves". "Many students do not conform to the rules and arguments take place between them and the library staff and this disturbs other students". "Some of the library staff talk loudly with their visitors and so student, who have come to read are disturbed". Some students complained about the noise caused by mobile phones inside the library resulting in distractions, as is clearly indicated from the following annotations: "The use of mobile phones by some students inside the library affects the other students". "Many students receive their calls in the library and the tunes of the mobile phone disturbs others". "Some students chat and talk on their mobile as though they are sitting in a café. Such behaviour must be penalized for the sanctuary of the library need to be preserved". "Quietness is important in a library or otherwise it would turn it into an unruly place like a market". The relation between noise levels in libraries and anxiety was also reported by previous studies (Balanli, Ozturk, Vural, and Kucukcan 2007; Bosman and Rusinek 1997, Sullivan-Windle 1993; Ugah 2007 and Onwuegbuzie, Jiao, and Bostick 2004).

### **(h) Poor Lighting**

A few students (13.7%, 7 out 51) commented positively about the lighting in the library. "One of the positive things about the library is its good lighting". Yet, some pointed out that poor lighting is one of reasons that caused them to leave the library. One student noted, "Many times I have to leave the library either because the library is not well-

equipped or unsuitable or because of the lighting or lack of references". Poor lighting quality and infrequent library use was also highlighted by Balanli, Ozturk, Vural and Kucukcan (2007).

**(i) Offensive Smells**

About 19.6% (10 out of 51) of students complained about offensive smells inside the library that makes students uncomfortable and subsequently leave the library or refrain from visiting it. The sources of these offensive smells were students' shoes and rotten foods. The following annotations made this clear: "During my university years I came to the library only a few times .... The library is smelly, overcrowded and the seating is insufficient". "Often the atmosphere in the library is so smelly that you think twice before going there let alone do your reading in that place". "Generally the library itself is clean but some students take off their shoes while they sit in the library. This makes the library smelly and causes many students to leave the library". "The library staffs eat and drink inside the library. The smell of food together with the mass of students and poor air-conditioning make the library unbearable". This issue seems to be a new factor, which has not been reported in previous literature

**(j) Poor Ventilation**

About 25.4% (13 out of 51) of students' annotations revealed that lack of good ventilation caused students to feel anxious and uneasy as well as limit the benefits obtained by the student from the library. This is evident from the following remarks: "I can attain the benefits for which I came to the university, if the ventilation inside the library is good". "I feel restless and anxious inside a library because the atmosphere is not conducive especially the air-conditioning". "One shortcoming of the library is the poor air conditioning, and so sometimes I go out to take some fresh air and come back to the library". "The atmosphere is mostly hot in the library". "The important things in a library are the seats, desks, ventilations, and arrangement of books. Should a problem occur with any of these, the academic achievement and psychological state of the student will be directly affected".

**(k) Seatings in the Library**

About 54.9% (28 out of 51) of the students complained about the lack of seats in the library compared to the number of students and this situation make students feel uneasy and anxious. One student commented, "One of the things that displeases me when I come to the library is not being able to find a seat to sit on". Another said, "The lack of seats in the library disturbs students, since there is no place either to write or research or study". A number of students pointed out on the quality of seats in the library with this remark, "Seats in the library are uncomfortable". "Seats should be good and comfortable so that the students can sit for a long time without feeling bored".

**(l) Library Size and Space**

About 60.7% (31 out 51) of the students showed concern about the small library size and insufficient space. This is indicated from the following annotations: "The library is located in a small area compared to the number of students it serves". "The library is always crowded at peak hours and at times some students have to leave as there are no seats, I think it would be better if the place is widened". "The library's space is insufficient and this prevents me from carrying out my task in the best way". Some students explained that small library size contributes to their being conscious about the noise around them, which in turn causes stress. This is indicated by the following comments: "The library building is so small that the noises and movement of students and library staff is audible and this distresses me". "The corridors between bookshelves and reading places are so narrow and

this result in crowdedness". "Reading places must be separated from books and reference places". "The small space between seats exposes students to the noise caused by movement of seats". "In the library I feel stifled as the spaces between seats are small and one has no freedom of movement especially after being seated for a long time..."

#### **(m) Location of the Library**

The location of the library seems to be a cause of anxiety among 9.8% (5 out of 51) of the participants. This is indicated by the following comments: "Our library lies on the ground floor and we often hear noises from outside, especially the ones from the upper floors caused by movement of some pieces of furniture". "The university library lies near the centre of political activities which is so noisy". The center of political activities is a place within the university where students, who are members of different Sudanese political parties, gather, discuss and present their party's point of view. The same student added, "It is also close to a car garage and all this emits noises that disturb students".

#### **(n) Mingling of Sexes**

About 15.6% (8 out of 51) of the students explained that gender mingling in terms of seating places in an Islamic country cause them to feel anxious and uncomfortable which negatively affects their tasks in the library. One student noted, "The separation of seating places for male and female students will provide a quiet anxious-free atmosphere". Being disconcerted about mixed seating is shared by both sexes and more so among female students. One female student noted, "The mixed seating upsets me". Another remarked, "It is advisable to separate the seating places of male students from those of female students". This is a new factor exposed by this study and was not reported by previous studies. This situation may be explained by Anwar, Al-Kandari and Al-Qallafis study (2004) which suggested that Kuwaiti men are more hesitant to approach female library staff.

### **Negative Perceptions towards Peers**

An analysis of student's notes has indicated that peers' behaviors were also a source of anxiety, dismay and uneasiness.

#### **(a) Peers Causing Disturbance in the Library**

About 66.6% (34 out of 51) of students complained that their peers in the library disturbed them with their sleeping and resting in the library, as well as eating and drinking, apart from their talking and chatting, using mobile phones, and taking off their shoes inside the library causing offensive smells, as reported earlier. These situations resulted in reducing their ability to concentrate and they avoid using the library. One of the annoying things in the library is that some students use it as a place to sleep or rest as reflected by the following remarks: "Some students eat and drink in the library and this cause stress to other library users". "Students cause mental stress to other library-users as they talk and study in groups inside the library and this affect others as it becomes difficult to concentrate". "One thing that upsets me in the library is the fact that some students come to the library to chat, which disturbs the others and they also break the rule of silence in the library". "Some students take off their shoes while inside the library which is a source of bad smell that upsets others and causes them to leave the library". The same types of disturbances were reported by Sullivan-Windle (1993), Balanli, Ozturk, Vural, and Kucukcan (2007) and Ugah (2007) who indicated that disturbances in the library caused frustrations that hinder information use.

### **(b) Mishandling Books and Reference Resources**

About 23.5% (12 out of 51) of students voiced their concern about their peers mishandling books and references. Some comments are as follows: "Students cause anxiety for library users through their irresponsible mishandling of books and references". "Many students have the habit of tearing off books or references when required to do research instead of writing notes for themselves". "Many students write silly remarks in the references".

### **(c) Hiding Books**

Purposive mis-shelving of books is another problem that frustrated 11.7% (6 out of 51) of the students. One student noted, "Some students have the habit of hiding books which are limited in number of copies and changing the location to places other than the designated place so that other students cannot find them ...". This factor was also reported by Andrews (1991) and Sullivan-Windle (1993) who described hidden books as one of the problems of locating books in the library, which resulted in users feeling frustrated.

## **Negative Perceptions towards Library Staff**

Negative perception of some students towards the library staff often hinders them from using the library effectively or seeking staffs' help. Library staff was perceived as serious, did not provide instructions, did not maintain order in the library, did not re-shelve books used by students, not helpful to students, moody, impatient, bad-tempered especially if asked about the location of books or how to find a piece of information, unqualified, and did not uphold library rules themselves.

### **(a) Indifferent Staffs**

About 64.7% (33 out of 51) of the students complained that library staffs treat them indifferently. This evoked feelings of dislike, stress, anxiety and confusion among students. Here are some of their comments: "Some of the library staffs are indifferent when dealing with students and so students dislike them". "The library staff should treat students in a respectable way and avoid being rough, I hope the library management will investigate this matter". "The library staffs sometime speaks to students in a rough or curt manner and this make students stressful and anxious". "One thing that is upsetting me in the library is the impolite manner which the library staff treat the student". "The library counter staffs treat the students in such a bad and demeaning way that leads to confusion and frustration". Some of the respondents gave the following reasons for such behaviour such as "... library staffs .. are poorly paid and exhausted due to hard work [and this] .. might explain the way they deal with students". Some students explained that this type of treatment would make students to leave the library, as one female student noted, "Bad treatment by the library staff makes students leave the library". One student concluded, "Good relation between student and library staff is an important factor for the student to get what he desires". Ugah (2007) indicated that developing countries lack awareness and appreciation towards library profession and its standards which details out staff's role in servicing their users.

### **(b) Irritable Staff**

About 29.4% (15 out of 51) of student's annotations revealed that they perceived library staff to be irritable and this prevents them from asking for help. Some of the annotations are as follows. "One problem with the library is the irritable staffs". "The library staffs are ill-tempered and irritable when asked about the location of a book". "The library staff should be more patience and establish good relations and cooperation with the students".

### **(c) Discriminatory Behaviour towards Students**

A small number of students noted on library staff's discriminatory behaviour towards students (7.8%, 4 out of 51). One student noted, "Some of the library staffs are discriminatory in their relation with the students in such a way that the student whom they know or were related to will receive special treatment such as they were given permission to borrow the book for longer periods of time or allowed to take books home despite the library rules prohibit this. This, consequently, causes distress to other students". This is a new factor not highlighted in previous studies.

### **(d) No Guidance and Instructions to Students**

Nearly half of the participants (47%, 24 out of 51) noted their belief that library staffs were reluctant to help or guide students to locate books and needed information. Some annotations revealed this situation. "One problem facing me in the library is that the library staffs do not do their duties in guiding and helping students who are in need of the knowledge and expertise regarding the nature of writing up for research". "One shortcoming with the library is that the librarian does not help you in the process of searching for a book". "The library staff should understand that their duty is to serve students and guide them in the library as well as make the library attractive as a place to study". "When the student asks the library staff about the location of books they mostly receive discouraging and confusing replies such as "look for yourself until you find them". "The first time I was required to write a research paper it was natural for me to go to the library and upon entering the library and because I did not know the location of the book, I asked the librarian in charge in show me how to find the books I needed. She merely pointed at the place to find the book myself despite the fact that I told her that this is the first time I am using the library. .... This made me upset and I lost all enthusiasm ... I did my best, and found the book only after prolonged search which consumed most of my time and made my first day fruitless".

### **(e) Not Maintaining Order Inside the Library**

About 31.3% (16 out of 51) of the students complained that library staffs did not maintain order inside the library, as indicated by these annotations. "... some of the library staffs don't take action against students who talk loudly". "The non-supervision of student, while in the library by the library staff encourage such practices as tearing off books and references". "Many of the library staff receive their visitors inside the library and talk to them about topics outside the scope of their work and so disturb the students". "I saw a librarian talking and arguing with another staff though she prevents the students from talking among themselves saying to them that if they do not wish to read they should chat outside. ..what a contradiction! .... I decided to leave the library to calm myself. I went to the counter and asked the staffs that I will leave and come back. The same librarian yelled at me, "Do you not know that talking is prohibited in the library? I felt so upset. From that time on I did not feel kindly towards the library. If asked to do a work necessitating library entry I would borrow the book and return it. I have developed an unexplained feeling akin to fear". "The library staffs eat and drink inside the library. The smell of food together with the mass of students and poor air-conditioning make the library very unappealing". The factors mentioned above are not mentioned in previous studies.

### **(f) Not Re-shelving Books**

A large percentage of participants (62.7%, 32 out of 51) pointed out that library staffs did not re-shelve books after being used. A student noted, "Once the student finishes reading a book, there should be someone responsible for returning the book to the shelves so that someone else might locate it". Another student commented, "The problem is when I have

to do my research, books on “computer science” should be in the place labeled “computer science”. But library staffs do not arrange books properly. This waste students’ time, especially when they are required to complete the task in a specified time”.

#### **(g) Lack of Professionalism Amongst Library Staff**

Only 17.6% (6 out of 51) of the students perceived library staffs as lacking in professionalism, not aware of the location of books and reference resources on the shelves and did not know how to search for references. Some student pointed that this hinders them from utilizing the library or asking for librarians help. One student noted, “The library staffs are inefficient and they are ignorant of books in some fields and their location in the library”. Another student said, “The library staff should be knowledgeable about the location of all books in the library”. A female student commented, “They should be experts and specialized in the field of library sciences so that students can obtain maximum benefit from the library”.

#### **Negative Perception towards Library Services**

The diaries’ annotations revealed that students were not happy about the insufficient numbers of books and references as well as the poor procurement of good quality current books and reference sources published or unpublished. They were also concern about the lack of library loan services, absence of both manual and online library catalog to help students locate materials on the shelves, shortage in the numbers of photocopiers, lack of written instruction and shortage in the numbers of library lockers.

#### **(a) Inadequate Provision of Books and References**

About 78.4% (40 out of 51) of the students noted that the library did not provide adequate number of books and reference books as indicated by the following annotations: “A problem that makes the library unhelpful for students is the lack of sufficient reference books for writing research”. “We were asked to do a research in a university subject but because the references were not at hand in the library I felt disappointed”. “A thing that produces anxiety inside the library is that reference materials are not available in large numbers”.

#### **(b) Insufficient Copies of References**

About 27.4% (4 out of 51) of the students complained that the library did not provide sufficient copies of heavily used books and this makes them anxious. This is indicated by the following comments. “A thing that upsets me in the library is the lack of books that students needed badly”. “Many times I have to leave the library simply because the library resources are inadequate and the reference resources are unavailable”. “A thing that upsets me is the lack of sufficient numbers of text books which force students to leave and go to the Internet which is costly for them”. “A feature that makes the library unsuitable to the students is lack of reference materials for writing up research papers”. Andrews (1991) who studied students’ library use problem found that limited number of copies caused students to compete for access especially amongst students who are taking the same course. Balanli, Ozturk, Vural, and Kucukcan (2007) indicated that inadequate size of library collection is one of the main reasons for insufficient library use

#### **(c) Lack of Relevant and Current References**

The analysis of the diary notes revealed that 35.2% (18 out of 51) of the students were dissatisfied with the types of books and reference resources provided, their currentness and relevance to the subject. This is indicated by the following remarks. “You feel distressed and disappointed when you cannot find an important book you are searching or

piece of information, or you might find the book but the information it contains might be either useless or not up-to-date ...". "A lot of students like me do not enter the library, because they felt that the library it does not contain anything useful, we might search in the library the entire day and not find what we are looking for".

#### **(d) Scarcity of Non-book Materials**

About 25.4% (13 Out of 51) of students are bothered about the scarcity of non-book materials in the library such as audiovisuals, electronic resources such as the Internet, electronic periodicals and journals. This is indicated from the following comments. "The library should provide newspapers, photographs, films, and sound recordings". "References, magazine and cultural books not related to subject specialization should be at our disposal". "One shortcoming in the library is the absence of Internet services".

#### **(e) Lack of Loan Services**

A significant library problem that upsets 43.1% (22 out of 51) of the students, was the absence or limitation imposed on loan service. The Sudan University of Science and Technology libraries, for example permits the student to only borrow the book for a few hours to read outside the library or to photocopy. This posed problems for students as indicated by these comments. "A problem faced by the students in the library is the absence of loan services". "I face difficulties when attempting to get the reference and photocopying it outside the library building".

#### **(f) Absence of Card or Online Library Catalogue**

The absence of a catalogue system in Sudan University of Science and Technology libraries caused anxiety and stress among students (39.2%, 20 out of 51). The following comments illustrate this point. "... the method used to locate a book [in the library] is inappropriate and the library management does not provide effective methods to facilitate search". "There should be an easy and applicable way to access books". "One of the shortcomings of the library is that you can only obtain the book when searching for it on the shelves". "A list of the titles of text books held at the library should be provided so that the search process will be speedier".

#### **(g) Shortage of Photocopiers**

About 56.8% (29 out of 51) of the students complained about the shortage of photocopiers which made them feel frustrated and compelled them to borrow the text books and make photocopies outside the library building as indicated by the following annotations: "It upsets me when the library is short of photocopiers and this forces me to go to photocopiers outside the library, thus depriving the other students of their right to access the books". "I asked one of the library staff about a reference and he answered that it was borrowed by a student who took it to photocopy outside as the library photocopiers was not working. At that moment I felt unlucky and this feeling prevents me from successfully completing any task". "The library has only one photocopier, which in fact compels students to swarm round it and waste their time. More photocopiers should be provided". The relationship between insufficient photocopiers and library anxiety was indicated by Bostick (1992).

#### **(h) Inadequate Provision of Printed Signage**

About 15.6% (8 out of 51) of the students expressed their concern that the library did not provide adequate signage showing the classification numbers and subjects of books on the shelves. A student said, "Shelves should be labeled and numbered according to their subject, as there are some shelves with no labels ...". Another student wrote, "Written instruction should be available in the library". Sullivan-Windle (1993) also found that lack of



instruction on how to use the facilities in the library caused frustration among university students

### **Psychological Barriers**

The students' annotations revealed the presence of psychological barriers which induces stress and anxiety amongst students and so hinders them from benefiting from the library. These barriers include anxiety that results from the searching process, academic aspects, and low self-esteem.

#### **(a) Feeling Anxious When Searching for Materials**

The analysis of students' diaries indicated that the majority (78.4%, 40 out of 51) of students suffer from anxiety and stress when looking for books and references in the library. Students usually take the following action when searching for an item in the library.

As there is no card or online library catalogue, some students would seek the help of the library staff hoping that the staff would be helpful. If this fails, they would go to the labeled subject shelves. If students find what they are looking for, they will feel relieved. A student noted, "It is only natural that one is relieved when one finds the item sought after. This is the case when students find the book or reference resources in question without losing time or effort". In the case where students did not know the title of the book, they would search for the book on the shelves one by one for the titles. This action triggered feeling of anxiety on account of the time wasted in the search. One student noted, "The biggest problem of all is coming to the library to look for a certain book ..... and you have to search all the shelves related to management which means that if there are 25 shelves devoted to management, then you have to scan all the shelves" or "When I ask the counter staff about a certain book, 'Information Technology', for instance, they said go to those shelves, which could contain 150 books, and search, and by the time I found it I would have lost the interest for reading". "I lack knowledge about the appropriate searching tools in the library that help me find what I need. This makes me feel I do not want to remain in the library and leave it as soon as I could. This itself displeases me... The lack of knowledge about the searching techniques is my biggest problem". Students described the research process as being costly both in terms of time and effort, leading to feelings of impatience, poor concentration, depression and boredom, or even leaving the library altogether.

If the student cannot find what he is looking for he would feel depressed and sad for the time and effort wasted. One student noted, "When I am required to write up research and I cannot find a book to help me in the research writing I feel stress". A female student said, "What upsets me most during my search for particular text books is when I am unable to find those books. This makes me feel angry and depressed. If the tools for locating books are easier to follow, it would have saved my time and effort".

In another context, if the student decided not to read the book he found immediately he has either to remember the location of the book on the shelves or hide it in a certain place so that he might come and resume reading it later. One student said about book hiders "Some students have the habit of hiding books, which are limited in number of copies in locations other than those designated for them at the shelves so that other students cannot find them, while they themselves could find those books easily when they return to the library".

If the student finds the book on the wrong shelves he would experience feelings of anger, stress, and anxiety. One student said, "Sometime I intensely search for a book, say in the

Arabic section but would find it shelved in the English section. This depresses me” Another said, “The biggest problem of all is coming to look for a certain book in the field of management... But then you discover that the book is simply not there. But the last straw is finding out that the book is there on the shelf allocated for “financial accounting”. You feel you want to cry!!”

Some of the students believe that they could not find the books on the shelves because the library staffs have failed to re-shelve books. The student might think that the reference is not there in the first place and, thereupon, accuse the library for not having enough reference resources. One student commented, “A problem facing the students in the library most of the time, is the inadequate books and reference resources, and this results in loss of time and effort in looking for information and delaying the completion of the research project”.

In other circumstances the student might find the reference or the book only to discover that the information contained is not up-to-date, irrelevant or useless. In this situation the student experiences feelings of anxiety and depression. One student noted, “When you search for an extremely important piece of information or book and cannot obtain it you feel depressed and disappointed or, alternatively you might find the book but the information inside is useless, and not up-to-date...”.

#### **(b) Anxious when Writing Research Papers**

If the student is required to write a research assignment using the library, he would feel constantly anxious, as revealed by 52.9% (27 out of 51) of participants. This is partly attributed to the negative perception towards the library staff, and failure to obtain the information required. This anxiety might reach an extreme state that the student develops a feeling of dislike towards the library. A female student noted, “When a teacher in the Faculty asked me to write a research paper I constantly felt stressed since I am not accustomed to entering the library and also because the library staff do not guide me quickly to the location of the information when I failed to obtain it. This made me hate entering the library”.

#### **(c) Anxious because Subjects are Difficult or Unfavorable**

About 15.6% of the students indicated that they encounter anxiety and boredom while reading certain academic subjects, which they felt to be difficult. A female student noted, “If I understand the the subject I am to research upon or I have background knowledge about it, or the subject contains an interesting topic, I would experience pleasure doing it. However, if it was difficult to understand, I will soon get bored writing about it”. Another student said, “Frankly, I feel very upset and stressed in the library when the subject I study falls outside the range of my specialization or is difficult”. This factor was discussed in previous studies. Reading unfavorable or difficult subjects in the library may contribute to students' anxiety as reflected from the students' remarks. Reading those subjects at home may make them less anxious since students can freely discuss or study with their peers. However, the non-availability of discussion rooms in Sudanese libraries has deterred students from studying or discussing with their peers.

#### **(d) Anxious when Textbooks in the Library is in the English Language**

About 9.8% of students expressed the view that language affects their acceptance of a given task. If the text book sought in the library is written in English the student would be anxious especially if his mastery of the language is poor. This in turn caused stress as one student annotated, “At times I find the book is in English and I cannot benefit from it particularly since I am weak in English”. Another said, “There is a discrepancy between the

language in which we learn and the language of some books. Some of the books in the library are written in English and the university student is weak in that language and has difficulties comprehending the subject in Arabic let alone English. This is psychologically damaging". This phenomenon was also found by Shoham and Mizrachi (2002) among Israeli students and Anwar, AlKandari and Al-Qallaf (2004) among Kuwaiti students.

#### **(e) Anxiety as a Result of Low Self-Esteem**

The diaries annotations revealed that one of the impediments of students using the library is low self-esteem, as 37.2% (19 out of 51) of students noted this feelings. In this context, students felt that they lack the necessary search skills as well ignorant of the location of books and references in addition to problems related to the ability to comprehend the subject and this caused them anxiety and results in avoidance behaviors. This is illustrated by these annotations. "The first time I entered the library I was seized by fear and I cannot concentrate. Fear was not because of the library itself but because of my ignorance of what it contains, the arrangement of references, method of search, and how to find what I want. This feeling of being ignorant makes me upset". "Up to now .. most students do not know how to search for reference book they want". "I lack knowledge about the appropriate searching tools in the library that can help me find what I need. This upsets me and makes me want to leave the library as soon as I could. The lack of knowledge about the searching techniques is my biggest problem". Some student read aloud in the library to help comprehend those subjects they perceive as difficult. Because reading aloud is prohibited in the library, they avoid reading and going into the library. A student said, "I feel I am slow at comprehending some subjects and so I have to read aloud. This habit disturbs the others and so I prefer to read in the open air". Another student said, "One of the problems facing me in the library is my incapability to comprehend if I am not reading the text aloud". This need for reading aloud is a new factor which, this study presents as a possible reason of library avoidance behaviour.

#### **Manifestations of Library Anxiety**

The results have confirmed the presence of feelings of anxiety among 88.2% (45 out of 51) Sudanese students which was similarly proposed by Mellon's (1986) theory of library anxiety. This includes feeling stressful, depress, dislike, fear, feeling of being forced to enter the library, desire to leave the library, confusion, discomfort, restlessness, feeling of suffocation, boredom, extreme restriction, distraction, psychological stress, instability, impatience and headaches. Mellon (1986) found that between 75%-85% his respondents suffered from library anxiety, mostly feeling stressed at the mere thought of going to the library.

Sudanese students also expressed their fear inside the library, due to the treatment of the library staff who yells at students if the latter break library rules. A female student noted, "The library is a frightening place because the library staffs are ill-tempered and annoying as they yelled at the students". Students fear of library staffs can be extreme since the mere sight of the library staff would trigger anxiety. A student noted, "When the individual is required to write a research paper, he feels he needs to visit the library, and would feel anxious if there are some difficulties imposed by the library staff".

A number of students felt anxious upon entering the library or when they are inside it. A student noted "When I enter the library I feel so uncomfortable and suffocated". Other examples which students have noted are as follows. "I feel as if there is no air in the library to breath". "The issue of the library is annoying indeed. I feel so frustrated and depressed

at entering the library, frustrated indeed". "A library causes unimaginable sense of boredom, impatience and frustration". "I felt restless and stressed the moment I enter the library". "I had a headache upon entering the library, not before!".

Several students have expressed their inability to stay in one place for a long period of time and the library is no exception. This is because they felt stressed, frustrated, extremely restricted and bored. A female student noted, "When I enter the library, I am seized with stress and frustrations. This maybe because it is the nature of some people who dislike restrictions or staying in one place for a long period of time". Another student added, "I cannot stay for long time in the library as I get bored. I stay in the library for some time and need to go outside for some time before coming back".

A female student tried to overcome the feeling of anxiety in the library by going with her friends to the library since their presence reduced her stress in the library and made her forget that she was in a library as she noted, " Many times I enter the library in the company of my friends so as not to feel bored. Their presence encourages me to remain longer time in the library than if I am alone. Their presence makes me forget that I am in a library".

One student pointed out that the absence of school libraries may be responsible for their unfamiliarity with the university library and, consequently, limited their ability to use and work in the library. The student noted, "Lack of and unfamiliarity with school library or library in the pre-university years has psychological effect on students such as being impatient about staying inside the library for long periods of time".

Other students expressed feelings such as discomfort, constant stress, lack of desire to read and poor concentration when reading or studying in the library as indicated by the following comments. "The major problem facing me, while reading in the library, is I cannot feel at ease and I am constantly feeling stressful". A female student noted, "I entered the library but felt that I did not have the desire to read anything". "Among the problem I faced in the library is the inability to concentrate when reading"

Several students were shy of library staffs and felt conscious about approaching them. This feeling was earlier confirmed by Mellon (1986) who found that library anxious students would not ask for library staffs' help because they were ashamed that their inadequacy maybe revealed. The following are the students' comments. "I feel shy approaching people for the first time I entered the university". "My shyness prevented me from asking the library staff in days when I am lost and not knowing what to do... ".

Several students explained that distraction in the library limits their utility of the library. This distraction could be due to staff and students' movements which disturbed them. A student annotated "Excessive movement in the library disturbs me and cause me to lose concentration while reading inside the library. So I always try to sit at the back of the library". A female student noted "I arrived at the library and sat down. While I was in the library I felt impatient and bored. Instead of reading I started to watch the people!!" The distraction might also be ascribed to preoccupations with everyday affairs or with their personal problems. One of the students noted, "While in the library I have the habit of recollecting past unhappy events and so I experience great unease". One student said, "The problems facing me in the library are preoccupations and absent-mindedness".

### **Manifestations of Library Avoidance Behaviors**

The analysis of students' statement revealed that 45% (23 students out of 51) of Sudanese students show signs of library avoidance behaviors. Carlisle (2007) stated that library avoidance is one of the negative effects of library anxiety. Onwuegbuzie, Jiao, and Bostick (2004) noted that symptoms of library anxiety such as fear, tension, self-defeating thoughts can develop and culminate in library avoidance behaviors. Some students explained that if they had to go to the library to carry out a task or to write a research paper, they would feel uneasy, uncomfortable, and have an immediate desire to leave the library as soon as the purpose of entry is over. A female student noted, "When I enter the library I am overwhelmed with the desire to leave it as quickly as possible. If I have a research paper to write I would force myself to finish it quickly so that I can leave. Frankly, I am extremely uncomfortable". Another student indicated that anxiety, stress and feeling the desire to leave the library lead him to leave the library before accomplishing the task he came for. As one student reflected, "Upon entering the library I felt stressful and anxious and wish to leave the library as soon as possible, sometime before completing what I have come for". One student added, "I entered the library and left immediately, I don't know why". Other avoidance behaviors include leaving the library and going to Internet cafés, borrowing or photocopying books to avoid reading inside the library, and avoid asking for librarian's assistance.

## **CONCLUSION**

The analysis of students' diary entries found that 88.2%, (45 out of 51) of participants expressed feelings of fear and anxiety when they are using the academic library to write their first research paper. The diaries analysis also revealed that 45% (23 out of 51) of the students expressed library avoidance behaviors when they are using the library. The students annotations helped to reveal the types and nature of feeling of anxiety related to using or being in the library. The result is the formulation of a Sudanese Library Anxiety and Avoidance Model (SLAAM), which describes the various factors that may be related to students' feelings of library anxiety and library avoidance (Figure 1). The factors are categorized into five themes; (a) Negative perceptions towards library environment, (b) Negative perceptions towards peers, (c) Negative perceptions towards library staff, (d) Negative perceptions towards library services, and (e) Psychological barriers. In another phase of this study students annotations will be used as statements under the various themes to construct an anxiety and avoidance assessment scale which will be statistically tested to a wider student population. Table 1 provides a summary of the statements detailed under themes, which are extracted from students' diary annotations.

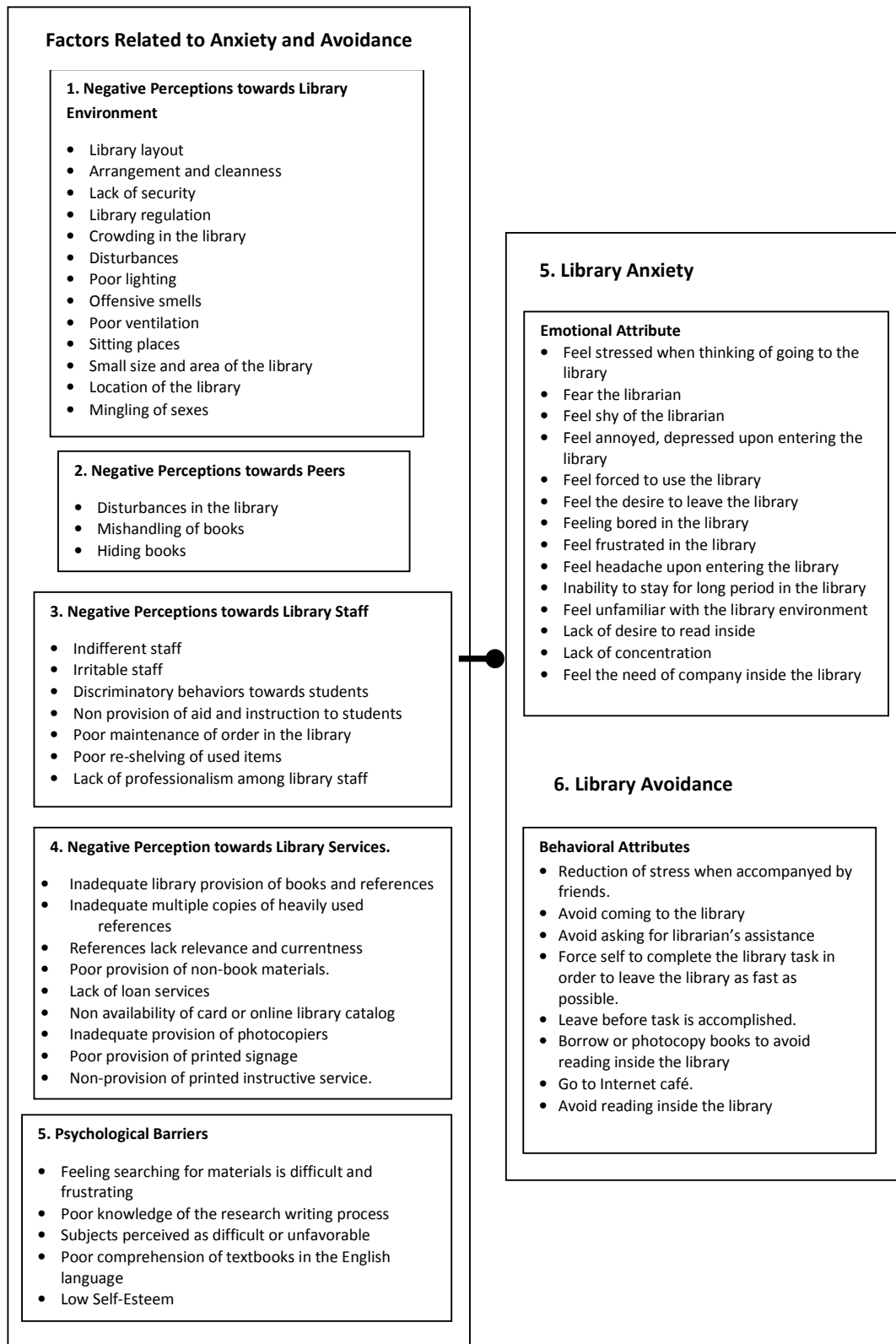


Figure 1: Sudanese Library Anxiety and Avoidance Model (SLAAM)

Table 1: Summary of Statements under Models's Themes

Item	Frequency (Total=51)	% of students
<b>Theme 1: Library Environment</b>		
Disturbances and noise inside the library cause anxiety, stress, lack of concentration, and library avoidance.	32	62.7%
Size and space constraints inside the library restricts and expose students to noise / disturbance in the library.	31	60.7%
Crowding in the library causes anxiety, stress, lack of concentration and force students to leave the library.	29	56.8%
Inadequate sitting areas causes anxiety, discourage students from coming to the library.	28	54.9%
Poor arrangement and cleanliness cause library avoidance, prevent students from locating needed materials.	18	35.2%
Students criticized library regulations, such as opening hours and security	17	33.3%
Lack of security for their possessions inside and outside the library cause stress and library avoidance	15	29.4%
Insufficient library lockers cause insecurity about property's safety and cause stress and library avoidance.	13	25.4%
Poor ventilation triggers anxious and uneasiness as well as limits the benefits obtained from the library.	13	25.4%
Library layout is unattractive and cause discomfort.	11	21.5%
Offensive smells inside the library cause discomfort, lead students to leave or refrain from visiting the library.	10	19.6%
Student are unccomfortable and anxious of gender mingling inside the library.	8	15.6%
Poor lighting.	7	13.7%
Inappropriate location of the library, near disturbing and noisy places.	5	9.8%
<b>Theme 2: Perceptions Towards Peers' Behaviour in the Library</b>		
Peer causing disturbances inside the library lead to anxiety and library avoidance	34	66.6%
Peer mishandling books cause anger to fellow students.	12	23.5%
Peer purposive miss shelving of books cause anger, anxiety, and feelings of helplessness among other students	6	11.7%
<b>Theme 3: Perceptions towards Staff</b>		
Library staffs treat students indifferently and this generates feelings of dislike, stress, anxiety and confusion.	33	64.7%
Library staffs did not re-shelving books and students fail to locate items on the shelves and become anxious, and helpless.	32	62.7%
Staffs are not helping and do not guide students to locate books or needed information. This generates feelings of anxiety, helplessness, and consequently library avoidance.	24	47%
Library staffs are not exercising their power to maintain order in the library and students are disturbed by various noises and negative behaviors of peers inside the library.	16	31.3%
Library staffs are irritable and this prevents students from asking for help, and makes them feel tensed.	15	29.4%
Library staffs are not professionals and some are not aware of the location of books and reference resources on the shelves and have no expertise in searching for references, making students feel helpless and confused.	9	17.6%
Staffs' discriminative behaviors and bias towards their relatives or some students create feelings of dislike, frustration and anger among some students.	4	7.8%

<b>Theme 4: Perception towards Library Services</b>		
Library does not provide adequate number of books and reference books, causing anxiety and prevent them from accomplishing their library task.	40	78.4%
Shortage of photocopiers makes students feels frustrated and compelled them to borrow text books and make photocopies outside the library building.	29	56.8%
Absence or limitation of loan service causes anger and dissatisfaction.	22	43.1%
Library does not provide access tools to its collection and need to introduce card or electronic catalogue.	20	39.2%
Books and reference resources are not up-to-date, often irrelevant to students' needs, generating feelings of disappointment, anxiousness resulting in students leaving the library and using other alternatives (e.g. Internet).	18	35.2%
Library does not provide sufficient copies of heavily used books, students have to compete with their peers for access and consequently feel anxious or annoyed.	14	27.4%
Lack of non-book materials in the library such as audiovisuals, electronic and Internet resources, electronic periodicals, cause dissatisfaction.	13	25.4%
Library does not provide adequate signage indicating classification numbers and subjects of books on the shelves. This makes the search process difficult, time consuming and frustrating.	8	15.6%
<b>Theme 5: Psychological Barriers</b>		
Expression of library anxiety was noted by many students.	45	88.2%
Psychological barriers when looking for books and reference. Students noted that the search process is difficult and frustrating and it leads to library avoidance.	40	78.4%
Students felt psychological barrier with the process of writing a research paper	27	52.9%
Expression of library avoidance behavior appeared in many statements	23	45.0%
Low self-esteem that hinder students from using the library effectively, leading to library avoidance behaviors.	19	37.2%
Students felt psychological barrier with subject that they believe to be difficult or unfavorable.	8	15.6%
Books written in English affects student's psychological acceptance of the task given.	5	9.8%



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