
Anxiety of Users in Academic Libraries: A Study among Undergraduate Students of Engineering Colleges in Tirunelveli District

C. Anjaline

Research Scholar
Manonmaniam Sundaranar University
Tirunelveli -627012
anjalinejohn@gmail.com

P. Saravanan

Librarian
Lekshmpuram College of Arts & Science
Neyyoor – 629802
saravanan.ppillai@gmail.com

Abstract

Library anxiety is a kind of psychological fears experienced by the users while accessing library and its sources for day-to-day information needs. The present study analysed library anxiety of users in academic libraries and in particular among undergraduate students in Engineering Colleges in Tirunelveli district. The survey was conducted among 306 undergraduate students of Engineering Colleges of Tirunelveli District with respect to selected variables. The study revealed that undergraduate students have library anxiety more than the mean level. Computer anxiety is also exists among them. Moreover, undergraduate students differ significantly on library anxiety based on gender, parental education and do not differ significantly based on locality, membership in public libraries and achievement in previous classes.

Keywords

Library Anxiety, Computer Anxiety, Barriers, Mechanical Barriers, Undergraduate Students, Engineering Colleges

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INTRODUCTION

Library plays a key role in the knowledge dissemination process in the ICT based information era. In the higher education system, class room instructions are supplemented by the library based teaching and learning. Self paced independent learning and acquiring life-long learning skills are the major objectives of higher education system. The habit of accessing academic libraries independently begins at undergraduate level in the existing higher education system. There are several factors which influences the usage behaviour of undergraduate students, which includes barriers of several kinds including anxiety. The feeling of anxiety when approaching library is one of the barrier. It is more psychological in nature and hinders the users' when access to information, which may be described in the broader term, *information barriers* (Swigon, 2011). Library anxiety is undoubtedly an important issue. It is the common phenomenon occurring among the majority of students while accessing the library in the beginning than others (Mellon, 1986; Onwuegbuzie, Jiao, & Bostick, 2004).

LIBRARY ANXIETY

Library anxiety is described as "an uncomfortable feeling or emotional disposition, experience in a library setting, which has cognitive, affective, physiological and behavioural ramifications" (Onwueghuzie, Jiao & Bostick, 2004). Library anxiety is characterized by negative emotions including - tension, fear, feelings of uncertainty and helplessness, negative self-defeating thoughts, and mental disorganization – that are experienced in the library setting. It is kind of psychological barrier that hinder user's access to information, and has been described in broader term as information barriers. Library anxiety has a debilitating effect on a user's ability to perform library information seeking process and research performance in general.

Library anxiety has been found to be a multi-dimensional construct. Specifically, using exploratory factor analysis techniques, Bostick (1992) identified five barriers to library use which also are the major cause of library anxiety. These barriers are

- a. Barriers with the Staff
- b. Affective barriers
- c. Comfort of the Library - Ambience of the Library
- d. Knowledge of the library

- e. Mechanical barriers.

NEED AND SIGNIFICANCE OF THE STUDY

Academic libraries play a major role in achieving the objectives of the parent institution. On completion of the school education, students are expected to acquire life-long learning skills and good study habits from the library. While accessing library, fresher are expected to face hindrances in information search and have one or many of the anxiety symptoms such as tension, fear, feeling of uncertainty, helplessness, negative and self-defeating thoughts. These types of feeling are caused by the stimuli induced by the library, called library anxiety. This type of anxiety is more prevalent among the fresher than the third and final year students at undergraduate level. The perceived library anxiety among the undergraduate students depend on several factors namely demographic variables of the students, educational background, previous experience in using or visiting nearby libraries, basic information literacy skills such as knowledge of information sources, ability on handling information technology (ICT) based electronic gadgets, positive perception about libraries, attitude towards library and information centres and library professionals. External variables also influence the library anxiety of undergraduate students. The concept of library anxiety was first introduced by Mellon (1986), followed by Bostick(1992) who has developed a quantitative measuring tool to measure library anxiety. Based on Bostick library anxiety scale, several studies were conducted among various user groups in abroad in the following years. More number of studies was conducted by Onwueghuzie, Jiao and Bostick (2004), Onwueghuize, et al. on various aspects of library anxiety. McPherson (2015) reported that lack of information literacy skills, lack of previous experience, and some institutional factors are factors causing library anxiety among the undergraduate students. The study conducted among the arts and science colleges also reveals that library anxiety exists among the undergraduate students (Anjaline, and Saravanan, 2017). But library anxiety is prevailing among the beginners than the seniors among the undergraduate students. Scanning of the available literature in library and information science shows that no formal systematic study has been conducted among the undergraduate students in Indian setting. Hence, the present investigator felt the need to fill this gap and hence motivated to undertake a study to determine perceived library anxiety among

the undergraduate students of Engineering Colleges in Tirunelveli district.

STATEMENT OF THE PROBLEM

The present study intends to determine the perceived library anxiety among the undergraduate students of Engineering Colleges in Tirunelveli district. Therefore, the problem for the present study is entitled as “Library Anxiety of Users in Academic Libraries: A Study among Undergraduate Students of Engineering Colleges in Tirunelveli District”.

OBJECTIVES OF THE STUDY

Objectives framed for the study are as follows:

1. To determine the level of perceived library anxiety among the undergraduate students of Engineering Colleges.
2. To identify the factors that influences the library anxiety among the undergraduate students.
3. To compare the library anxiety of undergraduate students with respect to the demographic variables gender, locality, discipline, age, community, first generation learners, parent’s educational level, achievement of students and membership in public libraries.
4. To determine the computer anxiety among the undergraduate students.
5. To identify the relationship between the dimensions of library anxiety and computer anxiety of undergraduate students.

HYPOTHESES OF THE STUDY

1. Library anxiety is more among the undergraduate students of Engineering Colleges.
2. There is no significant difference in library anxiety among the users based on gender, locality, discipline, age, community, first generation learners, parent’s educational level, achievement of students and membership in public libraries.
3. Computer anxiety among the users in academic libraries is low.
4. There is no significant difference in computer anxiety among the users based on gender, locality, discipline, age, community, and first generation learners.
5. There is no significant correlation between dimension of library anxiety and the demographic variables including information literacy and computer anxiety.

SCOPE AND LIMITATIONS OF THE STUDY

It is very difficult to analyse all aspects of library anxiety among the users of academic libraries in a single study due to constraints like time and scope. Therefore, the present study is intended to analyse the perceived library anxiety among the undergraduate students of Engineering Colleges in Tirunelveli District. Since, users of academic libraries belong either to student community or teacher community, and also members of the teaching community are regular users of library and its services and hence they are familiar with the library environment and hence the perceived library anxiety is very low among them. Thus they are excluded from the study. Therefore, the present study is confined only to undergraduate students of Engineering Colleges. Similarly, postgraduate students and final year undergraduate students have experience in using college libraries and hence they are also excluded from the study.

METHODOLOGY

The present study is intended to study the perceived library anxiety among the undergraduate students and hence survey method is adopted for the study.

Population of the Study

Population for the present study is students who are undergoing undergraduate courses in Engineering Colleges of Tirunelveli district of Tamilnadu.

Sample for the Study

Respondents for the present study consist of 306 undergraduate students from Engineering Colleges in Tirunelveli district. Selection of these samples are carried out by using stratified random sampling techniques by giving due importance to various categories of variables under study.

Tools used for the study

Tools used for the present study is an adopted version Bostick (1992) library anxiety scale. Some of the statements are modified to the library environment of Engineering College environment. It consists of forty one statements on six dimensions namely, barriers with staff, affective barriers, comfort with the library, knowledge of the library and mechanical barriers. Each of these statements is rated on a five point scale of Likert type. Similarly, CARS (Computer Anxiety Rating Scale) is used for measuring perceived computer anxiety among the students.

Procedure of the study

Library anxiety scale, computer anxiety rating scale along with other demographic variable was administered on a sample of 350 respondents and asked them to rate the statements based on their experience in the library on a five point scale. Positive statements are scored 1 for strongly disagree, 2 for disagree, 3 for undecided, 4 for agree and 5 for strongly agree. The same procedure is reversed for negative statements. Only 306 questionnaires are complete in every aspect and hence they are selected for the study. The response rate of the questionnaire is 87 per cent. Collected data were analysed using the statistics like 't' test and ANOVA for testing hypotheses and hypotheses are tested at 0.05 level of significant. All the calculations are carried out using SPSS version 17.

ANALYSIS AND INTERPRETATION OF DATA

The collected data are further analysed for drawing inferences based on the predetermined objectives. The details of analysis are as follows:

1. Distribution of respondents based on Demographic Variables

The present study consists 306 respondents, out of which 170 (55.6 per cent) are female students and the remaining 136 (44.4 per cent) are male. Again based on the locality, 209 (68.3 per cent) respondents belong to rural area and the remaining from urban. Also, 182(59.5 per cent) respondents are the first generation learners. Parents of forty nine per cent of the respondents have either illiterate or below SSLC level education and 20.9 per cent of the respondents have parental education up to degree. Only, 38.2 per cent of the respondents having previous knowledge or experience in using public libraries. Similarly, 29.2 per cent respondents have well familiar in using computer, 52.7 per cent are categorized as average in computer literacy, and 18.1 per cent have below average in computer literacy.

2. Perceived Library Anxiety

The library anxiety scores of the respondents and various statistic values calculated from the library anxiety scores of the respondents are summarised in table 1.

Table 1: Statistic values of Library Anxiety and its Dimensions

S.No	Library Anxiety and its Dimensions	Mean	S.D
1	Knowledge of the Library	22.72	4.3
2	Comfort with the Library	40.90	7.1
3	Barriers with the Library Staff	30.8	5.7
4	Mechanical Barriers	19.29	3.9
5	Affective Barriers	15.99	3.6
6	Library Anxiety	129.70	20

Source: Primary Data

Table 1 shows mean and standard deviation of library anxiety score of the respondents. The mean and standard deviation of library anxiety score is 129.70 and 20, it reveals that users in academic libraries have library anxiety and the intensity of library anxiety is above the medium level. The table also reveals the mean score of the dimensions of library anxiety as follows: Knowledge of the library (22.72); comfort with the library (40.90); barriers with the library staff (30.8); mechanical barriers (19.29) and Affective barriers (15.99). Hence, it is interpreted that undergraduate students of engineering colleges have library anxiety and it is above the mean level. High score in knowledge of the library and comfort with the library shows users in academic libraries have more anxiety due to these barriers.

3. Level of Library Anxiety

Library anxiety score of the respondents is further classified into low, medium and high based on mean and standard deviation. The details are summarised in table 2.

Table 2:Level of Library Anxiety

Sl.No	Level of Library Anxiety	Frequency	Percent
1	Low Level	40	13.1
2	Medium Level	215	70.3
3	High Level	51	16.7
Total		306	100

Source: Calculated Value

Table 2 reveals that 70.4 per cent of the respondents have medium level library anxiety and it is followed by 16.7 per cent have high and 13.1 per cent have low library anxiety. Thus, it is interpreted that majority of the undergraduate students of engineering colleges have medium level library anxiety.

4. Year wise Level of Library Anxiety

Undergraduate programme of engineering colleges is a four year course. Therefore, the level of library anxiety of the undergraduate students is further classified into two namely library anxiety of first year students and library anxiety of second year students based on the year of their study. Year-wise level of library anxiety among the undergraduate students is given in table 3.

Table 3:Year wise Level of Library Anxiety

S.No	Level of Library Anxiety	First Year	Second Year	Total
1	Low	22 (7.2)	18(5.8)	40
2	Medium	124(40.52)	91(29.7)	215
3	High	36(11.7)	15(4.9)	51
Total		182	124	306

Source: Calculated Value

Table 3 discloses that 182 respondents out of 306 belong to first year of their undergraduate programme and the remaining 124 students belong to the second year. The change in level of library anxiety of the first year students to second year students shows that 11.7 per cent to 4.9 per cent at high level library anxiety category, among median level category it is from 40.52 percent to 29.7 per cent and low level category it is from 7.2 per cent to 5.8 per cent. The change in trend in perceived level of library anxiety among the first and second year undergraduate students shows gradual decline of high anxiety and increase in low level category. Hence, it is interpreted that changes exists among the undergraduate students on perceived library from first year to second year.

5. Comparison of Library Anxiety based on Gender

Library anxiety among users in academic libraries is compared on the basis of gender using student 't' test of analysis. The details of analysis are given in table 4.

Table 4: Comparison of Library Anxiety of the respondents based on Gender

S.No	Gender	N	Mean	Std. Dev.	t value
1	Male	136	134.6	23.9	3.95* <i>p=0.00</i>
2	Female	170	125.8	15.1	
Total		306	129.7	20	

*indicates the value is significant at 0.05 level

Table 4 depicts the mean and standard deviation of library anxiety score of male and female along with 't' values. The mean and standard deviation of male and female respondents are respectively 134.6; 23.9 and 125.8; 15.1. The calculated value of 't' is 3.95, which is significant at 0.05 level ($t = 3.95; p < 0.05$). Thus, the null hypothesis is rejected at 0.05 level. Table also reveals that library is anxiety is more among the male respondents than female respondents. Therefore, the academic users differ significantly in library anxiety among the users in academic libraries based on gender. The reasons for gender disparity in library anxiety are to be identified the earliest to adopt remedial programmes to minimise library anxiety among the users in academic libraries.

6. Comparison of Library Anxiety based on Locality

The respondents of the study are classified into two group namely rural and urban category based on their locality. The library anxiety among the students are compared using students 't' test of analysis. The details are summarised in table 5.

Table 5: Comparison of Library Anxiety based on Locality

S.No	Locality	N	Mean	Std. Dev.	t value
1	Rural	209	130.67	20.7	1.23 <i>p=0.22</i>
2	Urban	97	127.63	18.1	
Total		306	129.7	20	

Source: Calculated Value

Table 5 discloses that the calculated value of 't' is 1.23 with *p* value 0.22, which is not significant at any level. Moreover, the mean library anxiety among the rural and urban category are respectively 130.67 and 127.63. Therefore, the null hypothesis is accepted. Hence, it is interpreted that users in academic libraries do not differ significantly in library anxiety based on locality.

7. Comparison of Library Anxiety based on Parents Educational Level

The effects of parent's education on perceived library anxiety on their wards are also studied. The respondents are divided into four groups based on their parents education namely wards of Illiterate parents, below SSLC, HSC, Degree and above degree. The library anxiety among the sub groups are compared using ANOVA. The details of ANOVA are summarised in table 6.

Table 6: Comparison of Library Anxiety based on Parents Educational Level

S.No	Parents Education	N	Mean	S. D	Source of Variation	df	Mean Square	F Value
1	Illiterate	42	121.14	16.6	Between Groups	4	2991.9	8.81* <i>p=0.000</i>
2	Below SSLC	108	125.24	13.1				
3	HSC	64	131.5	21.5	Within Groups			
4	Degree	64	139.5	24.5				
5	Above Degree	28	133.14	22				
Total		306	129.7	20		301	365.7	

*indicates the value is significant at 0.05 level

Table 6 reveals that library anxiety among the subgroups based on parents education differ, users have parents education below SSLC have less in library anxiety than the users have parents education higher than HSC. Also, the calculated value of F is 8.81 is significant at 0.05 level ($F = 8.51; p < 0.05$). Thus, the null hypothesis is rejected at 0.05 level. Hence, it is interpreted that users in academic libraries differ significantly on library anxiety based on their parent's education. Parents' education influences the library anxiety among the undergraduate students.

8. Comparison of Library Anxiety based on having Membership in Public Libraries

Those students who have membership in public libraries during their school life have familiar with basic services of library services. It facilitates to acquire more skills in college libraries. Since, the environment in academic libraries are different from public libraries, the perceived library anxiety among

the respondents are compared using student ‘t’ test based on having membership with public libraries and others. The details of ‘t’ test are summarised in table 7.

Table 7: Comparison of Library Anxiety based on Membership in Public Libraries

S. No	Membership in Public Libraries	N	Mean	Std. Dev.	t value
1	Yes	117	130.4	25	0.527 <i>p</i> =0.598
2	No	189	129.2	16.1	
Total		306	129.7	20	

Table 7 discloses that mean and standard deviation of respondents having membership in public libraries and who do not have membership in public libraries

Table 8: Comparison of Library Anxiety based on Achievement of Students

S.No	Class obtained in Examination	N	Mean	S. D	Source of Variation	df	Mean Square	F Value
1	I Class	186	128.6	16.9	Between Groups	2	439.4	1.09 <i>p</i> =0.33
2	II Class	95	132.2	23.7				
3	III Class	25	128.16	28.4	Within Groups	303	399.8	
Total		306	120.7	20				

Source: Computed Value

Table 8 reveals that the calculated value of F is 1.09 with *p* value 0.33, which is not significant at any level (*F* = 0.254; *p*>0.05). Therefore the null hypothesis is accepted. Hence, it is interpreted that users in academic libraries do not differ significantly on library anxiety based on achievement of students. Achievements of undergraduate students and their perceived library anxiety are not related.

10. Computer Anxiety

The computer anxiety rating scale consists of 19 statements covering various aspects of computer and its usage in libraries and each statement is rated on a five point scale. The details of statistic on computer anxiety of the respondents are given in table 9.

Table 9: Computer Anxiety of Respondents

S.No	Statistic – Computer Anxiety	Value
1	N	306
2	Mean	60.41
3	Standard Deviation	8.4

are respectively 130.4; 25 and 129.2; 16.1. Moreover, the calculated value of t is 0.527 with *p* value, which is not significant at 0.05 level (*t*=0.527; *p*>0.05). Therefore, the null hypothesis is accepted. Hence, it is interpreted that there is no significant difference exists among the users in academic libraries based on having membership in public libraries.

9. Comparison of Library Anxiety based on Achievement of Students

Academic achievements of students and library usage are positively related and hence the respondents are classified into three groups namely I Class, II Class and III Class based on the marks scored in university examinations. The significant difference in library anxiety among the respondents based on academic achievement is studied using ANOVA. The details of ANOVA are given in table 8.

4	Minimum	31
5	Maximum	86
6	Percentile 33.33	56
7	Percentile 66.66	62

Source: Calculated value

Table 9 reveals that the mean computer anxiety score of the respondents is 60.41 and standard deviation is 8.4. The minimum as well as maximum scores in computer anxiety are respectively 31 and 86. Similarly, the 33.33 and 66.66 percentile scores of computer anxiety of the users are respectively 56 and 62. From the table, it is interpreted that computer anxiety is prevailing among the undergraduate students in academic libraries and the extent of computer anxiety is above the medium level (Mean = 60.41; SD = 8.4). Familiarity of computer at higher secondary stage helps to reduce their computer anxiety.

11. Correlation of Library Anxiety and Computer Anxiety

Further co-relational analysis is carried out to determine the extent and degree of correlation between selected demographic variables with the dimensions of library anxiety using Pearson Product moment method of correlation. The demographic variables of the present study are gender, locality,

discipline, age, category of learner's namely first generation learners, parents income, community, parental education level, marks in previous examinations, membership in public libraries, information literacy and computer anxiety. The details of correlation co-efficient with significant level are given in table 10.

Table 10: Correlation Analysis

Variables	Knowledge of the Library	Comfort with the Library	Barriers with the Library Staff	Mechanical Barriers	Affective Barriers	Library Anxiety
Gender	-.219**	-.236**	-.209**	-.098	-.051	-.221**
Locality	-.059	-.088	.000	-.059	-.088	-.071
Discipline	.068	.005	.011	.113*	.011	.043
Age	-.064	-.067	-.089	-.045	-.151**	-.098
Parents Educational Level	.271**	.229**	.251**	.215**	.117*	.278**
Marks in Previous Examination	.064	.053	.034	.031	-.055	.041
Membership in Public Libraries	-.063	-.036	-.005	.013	-.017	-.030
Information Literacy	.440**	.266**	.298**	.287**	.176**	.366**
Computer Anxiety	.355**	.337**	.326**	.425**	.164**	.407**

* indicates significant at 0.05 level,

** indicates that significant at 0.01 level

Library anxiety has positive significant negative correlation with gender and the extent correlation is only at moderate level. Library Anxiety has moderate significant correlation with computer anxiety ($r = 0.407$; $p < 0.01$), and moderate positive significant correlation with parental education ($r = 0.278$; $p < 0.01$) at 0.01 level. Similarly, information literacy has positive significant correlation with library anxiety ($r = 0.366$; $p < 0.01$).

Findings of the Study

Findings emerged from the analysis are given as follows:

1. Undergraduate students of engineering colleges have library anxiety and the intensity of library anxiety is above the mean level.
2. The mean score of the dimensions of library anxiety as follows: Knowledge of the library (22.72); comfort with the library (40.90); barriers with the library staff (30.08);

mechanical barriers (19.29) and Affective barriers (15.99).

3. High score in knowledge of the library and comfort with the library shows users in academic libraries have more anxiety due to these barriers.
4. The perceived library anxiety is more among the first year students than the second year students.
5. Majority of the respondents (70.3 per cent) have medium level library anxiety and it is followed by 16.7 per cent with high level and 13.1 per cent with low level library anxiety.
6. Users in academic libraries differ significantly in library anxiety based on gender ($t = 3.95$; $p < 0.05$) and do not differ significantly based on membership in public libraries ($t = 0.52$; $p > 0.05$).
7. Users in academic libraries differ significantly in library anxiety based on parental education level ($F = 8.51$; $p < 0.05$) and do not differ significantly based on achievement of students ($F = 0.254$; $p > 0.05$).

8. Computer anxiety prevails among the undergraduate students in academic libraries and the extent of computer anxiety is above the medium level (Mean = 60.41; SD = 8.4).
9. Library Anxiety has moderate significant correlation with computer anxiety ($r = 0.407$; $p < 0.01$), and moderate positive significant correlation with parental education ($r = 0.278$; $p < 0.01$) at 0.01 level. Similarly, information literacy has positive significant correlation with library anxiety ($r = 0.366$; $p < 0.01$).

CONCLUSION

The study reveals that undergraduate students of engineering colleges in Tirunelveli district have library anxiety at above the median level; the perceived library anxiety is more among the first year students than second year students. The study also revealed that undergraduate students differ significantly in library anxiety based on gender, parents' education level, and do not differ significantly based on locality, membership in public libraries and achievements of students. Library anxiety has significant positive correlation with information literacy and computer anxiety. The perceived library anxiety among the undergraduate students can be reduced by providing library instruction regularly to the users, providing positive library experiences, user friendly technology, value added library services, and fulfilling the information requirements of the users. Since, positive relation exists between library anxiety and information literacy, library professionals should come forward to provide information literacy programmes to imbibe good learning skills and regular reading habits.

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