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# **Impact of Study Anxiety Sources on the Grade Achievements of University Students: A Case Study of Lahore**

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## **Abstract**

Anxiety is a common phenomenon among all kind of learners and university students. Study anxiety has been recognized by students of all educational institutes as they face new atmosphere and people in the campus. The objective of this study is to recognize the sources of study anxiety and then determine the impact of these sources on the grade achievements among university students. The results showed that exam anxiety, subject anxiety, language anxiety, library anxiety, social anxiety and presentation anxiety are sources of study anxiety. All of the sources have a great impact on grade achievements except presentation anxiety. The results proved that anxiety put a high impact on the grade achievements of students and those students who had more anxiety get low marks.

**Keywords:** Study Anxiety, Exam Anxiety, Subject Anxiety, Language Anxiety, Library Anxiety, Social Anxiety, Presentation Anxiety

## **1. Introduction**

University students face many difficulties in which study anxiety is a major problem. Students have to meet new challenges, environment changing, academic challenges and difficulty with new roommates that lead them to anxiety and stress. Gamble (2017) explored that anxiety affects the academic performance of students and they get lower marks in result. Some students have high level of anxiety and they cannot even show their involvement in the class. Such students feel hesitation while communicating and they do not perform such tasks in which they will be evaluated by the teacher.

Zelazo and Lyons (2012) investigated that for reducing the school related anxiety the education of self-regulation at an early age is important. Social and academic anxiety negatively affects the educational performance of the students. Ader and Erkin (2010) studied that students mostly face educational or social anxiety which affect their educational performance. These kinds of students don't ask for help during class or group studies. Researcher suggested that students should get awareness about self-regulation for improving their academic performance.

Huberty (2009) explored that students feel library anxiety while using libraries for their academic purpose. Information sources of library, user education, human resources of library, user knowledge and atmosphere of library are the sources which creates library anxiety among students. Oludipe (2009) researched that text anxiety is the major source of anxiety for students due to which students can't achieve their goals in educational life.

Zahrakar (2008) studied that anxiety put a bad impact on student's professional, social, personal, educational and familial life. A student will feel hesitation for asking any kind of help in class if he face social anxiety in his life. McCraty (2007)

worked on the academic performance of the students and the correlation of the sources of anxiety. Results found that student's educational performance remain low who faced more anxiety. Students face different kind of anxiety such as social anxiety, subject anxiety, exam anxiety, presentation anxiety, library anxiety and language anxiety. The high level of anxiety effects student's class result and performance. These sources effects students' performance. Students who face anxiety during studies be likely to get lower academic achievements.

Zhong (2007) explored that libraries support learning, teaching and research activities of its parent organizations so they have a great influence on academics. Libraries affect whole academic performance and learning processes. Students with low ability face high anxiety and their performance remain low (Hembree, 1990).

## **2. Literature Review**

Ahmed *et al.*, (2012) explored that assisting students before failure is important. Students who have math anxiety at early stage, will face more anxiety when they will get older. And those who failed will have higher levels of anxiety. Owens *et al.*, (2012) stated that depression and anxiety creates more nervousness in students for educational performance. Students' academic performance and working memory function can be affected by high level of anxiety. Some school related tasks also get affect by depression that contains more working memory.

Vitasari *et al.*, (2010) presented a planned survey to find study anxiety sources in university students. They found mathematic anxiety, class presentation anxiety, social anxiety, language anxiety and exam anxiety as sources of anxiety. Feeling nervous while doing assignments, lacking interest in difficult subjects, before going to a classroom are the symptoms of anxiety among students. Feelings of failing in class test, failing examination, failing occupation, unable to do anything, panic and

nervousness are the signs of anxiety which cause student's educational performance low.

Rana and Mahmood (2010) explored that the association among test anxiety and academic achievement of post graduates. A negative relation found in the scores of students and anxiety sources. A cognitive factor "worry" contributed more in test anxiety than affective factors "emotional". Thus, results resolved that test anxiety is accountable for students who can't get their desired goals.

Huberty (2009) stated that the features of anxiety put an impact on students physiologically behaviorally and cognitively. Students who suffer from depression usually faces anxiety. For such students high risks testing is very difficult. Students can cope up with their anxiety only if parents and teachers help them together.

Brown (2007) investigated that while learning another language many students face difficulties. Some factors including: inspiration, anxiety, intelligence and attitudes affect their capabilities. Anxiety is the main factor which influence more on language learning anxiety. Spielberg and Reheiser (2005) stated that individuals feel language anxiety when they have to use any other language fluently. He also projected that there is an obvious negative relation between anxiety and achievements.

Taylor & Fraser (2003) found that there is a positive relationship between math anxiety and well integration of students. Jiao and Onwuegbuzie, (1997) researched that students very often struggle to meet new challenges in the rapid changing environment of technological libraries which becomes a barrier for effective use of library. He concluded that older students use libraries more frequently than do younger students, males use the library more the females.

Jiao *et al.*, (1996) identified a positive relationship between higher library anxiety and a lower frequency of visiting the library. Bostick (1992) researched that the main hurdle in student's education life is library anxiety. He prepared a scale for library anxiety and identified five modules of Library Anxiety: hurdles with library team, disturbing barriers, relaxation while using the library, information of the library, and mechanical barriers.

Mellon (1986) studied that library anxiety happens because students don't know about the size of the library, deficiency of information about the location of resources, how to start searching and then what to do with the retrieved results. Robinson (1966) pointed out a bad association among anxiety and academic progress. He examined the hypothesis that students face low level of anxiety who have extraordinary educational capability but those students who have less educational capability face more anxiety.

### **3. Problem Statement**

Study anxiety has long been a matter of interest to researchers. Different studies have shown that study anxiety among university students is very common. Many sources like exam anxiety, subject anxiety, language anxiety, library anxiety, social and presentation anxiety make students anxious while studying. As a result their personal growth gets disturbed. Sometimes anxiety helps learners in achieving their goals on time but their performance can get disturb if they will continuously feeling anxiety.

### **4. Research Objectives and Research Questions**

The objectives of this research are to identify the sources of study anxiety among the students of public and private universities of Lahore, Pakistan and to see the impact of these sources on the grade achievements. The following research question are

constructed to meet the research objectives:

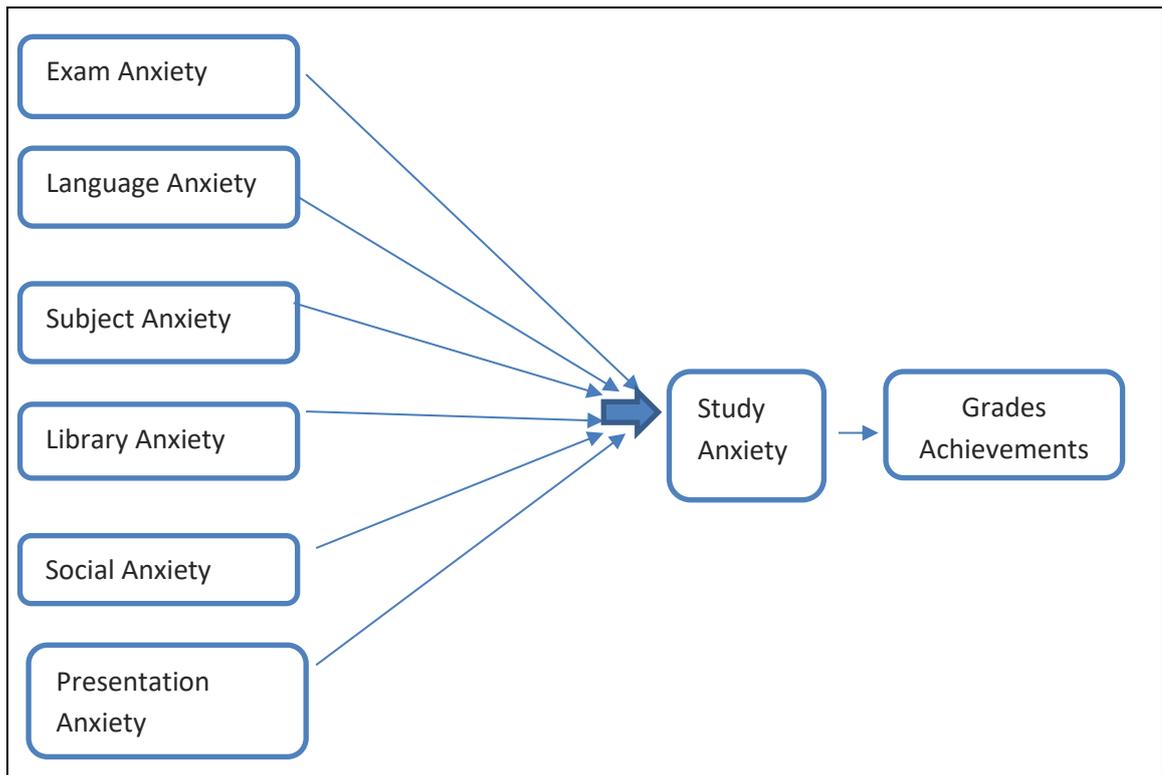
1. What are the sources of study anxiety?
2. What is the correlation among study anxiety sources and grade achievements?
3. What is the impact of study anxiety sources on the grade achievements?
4. Which is the most effective factor for study anxiety?

## **5. Theoretical Framework of the Study**

According to attribution theory there are two goals which are performance goals and learning goals. Students with learning goals work hard and learn more for their success. On the other hand students, who have performance goals, are anti-motivation they just focused on the performance and outcomes. Learners can also improve self-handicapping but those who think success will not happen, they don't even give it a try (Vockell, 2004). Horwitz, Horwitz and Cope (1986) well-defined that "*A distinct complex construct of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of language learning process*"

The independent variable of study are Exam Anxiety (EA), Language Anxiety (LA), Subject Anxiety (SuA), Library Anxiety (LA), Social Anxiety (SoA) and Presentation Anxiety (PA) and the dependent variable is Exam Performance (EA). The CGPA is used to measure the students grade achievement or exam performance. Thus,

$$EP = f (EA, LA, SuA, LA, SoA, PA)$$



*Figure 1: Relationship between Dependent and Independent Variables*

This is hypothesize that student who feel less anxious get better grades and perform better than those students whose anxiety level is high. Student’s performance remain low who’s anxiety level is high. The following hypotheses are developed to test the research questions and to meet the objectives.

H1: There is a significant correlation between study anxiety sources and Grade achievement

H2: Study Anxiety significantly effects grade achievement

## **6. Research Methodology**

For this research work, a quantitative approach is employed. After the extensive literature review there has been extracted some variables as anxiety sources such as, library anxiety, exam anxiety, subject anxiety, social anxiety and language anxiety and presentation anxiety which effects academic performance. Study anxiety is

independent variable and student's performance is dependent variable. The study is exploratory as well as explanatory in nature. Population of this research is comprised currently enrolled students of both public and private universities in Lahore. A non-probability sampling such as convenient sampling technique is used for data collection. Using the online sample size calculator with 95% confidence level and 5% confidence interval, sample of 416 were collected through structured questionnaire.

The adaptive questionnaire (Vitasari, 2010) is used for data collection from the respondents. The questionnaire was based on 5- point Likert scale: Never (1), Rarely (2), Sometimes (3), Very often (4), Always (5). The questionnaire consist of 49 questions subdivided in 6 factors. This research delimits itself to only public and private universities of Lahore. Sample of 416 students are selected who are studying in second or higher semester, they have shared the CGPA of the previous semester.

## **7. Data Analysis**

The validity analysis is performed to explore the factors of study anxiety. The reliability analysis has data has been executed to see the inter item consistency. The correlation analysis is used to see the relationship among study anxiety sources and the multiple regression analysis has been performed to determine the impact of study anxiety sources on the performance of the students.

### **7.1 Validity Analysis**

The exploratory factor analysis (EFA) is performed using principal component analysis technique with varimax rotation method to check the construct validity. The value of Kaiser-Meyer-Olkin (KMO) is .791 which is middling, and Bartlett's test of Sphericity is.000, so the assumption of KMO and Bartlett's test of Sphericity are fulfilled which means data is suitable for factor analysis.

The EFA displayed 4 factors after excluding number of items (1,6,7,12,15,16,17,18,19,20,21,22,23,25) one by one because of cross loading. The other 14 variables were grouped into 4 factors in table 2. So the library anxiety has 4 items (Q26, Q27, Q28, Q28), subject anxiety has 4 items (Q8, Q9, Q10, Q11), exam anxiety has 4 items (Q2, Q3, Q4, Q5), and presentation anxiety has 2 items (Q13, Q14).

*Table 1: Rotated Component Matrix*

Sr.	Question items	Component			
		1	2	3	4
27	I felt uncomfortable while using the library for study	.818			
29	I felt nervous when the instructions on how to use the library are unhelpful	.796			
26	I felt anxious when tried to find references in the library	.716			
28	I felt that the library was not an important part of my study	.676			
13	I felt lack of confidence during my presentation		.824		
14	I felt that my heart is beating very fast during the presentation		.814		
11	I felt worried when I could not understand some concepts in the class about the Subject I felt anxiety			.760	
10	I always wrote down everything during the class on the subject I felt anxiety			.753	
9	I felt that even though I studied hard but I couldn't achieve success in the subject			.707	
8	I felt anxiety because I found this subject difficult (the subject I felt anx			.677	
5	I felt upset after taking an exam.				.639
4	I felt nervous during exams due to the lack of preparation				.728
3	I felt distracted during the exam.				.712
2	I felt anxious that I could not understand the exam questions.				.677
<b>Eigenvalue</b>		3.621	1.119	2.249	1.345
<b>Variance extracted %</b>		25.866	7.994	16.067	9.605

Language Anxiety has been operationalized in two ways: those who are taking English language(A) classes comprised on items (30a, 31a, 32a, 33a) and those who not are

taking English language(B) classes and having general English anxiety consists on items (30b, 31b, 32b, 33b). For the construct language anxiety (A) the value of Kaiser-Meyer-Olkin (KMO) is .786 which is middling, and Bartlett's test of Sphericity is .000, so the assumption of KMO and Bartlett's test of Sphericity are fulfilled and data is suitable for factor analysis. All four items comprised one component.

*Table 2: Component Matrix of Language Anxiety (A)*

Sr. No	Question	Component 1
<b>Q30a</b>	I felt nervous while attending foreign language classes	.882
<b>Q31a</b>	I felt some anxiety during speaking activities in a language class	.831
<b>Q32a</b>	I felt nervous when my lecturer interrupted me to correct my speaking	.828
<b>Q33a</b>	I felt anxious due to a lack of confidence during language classes	.757
<b>Eigenvalue</b>		2.727
<b>Variance extracted %</b>		68.169

For the language anxiety (B) the value of Kaiser-Meyer-Olkin (KMO) is .786, and Bartlett's test of Sphericity is.000. All four items comprised one component.

*Table 3: Component Matrix of Language Anxiety (B)*

Sr. No	Question	Component 1
<b>Q30b</b>	I felt anxious when a teacher suddenly asked me a question in English in the class	.864
<b>Q31b</b>	I felt anxious while taking part in a group discussion in English in the class	.817
<b>Q32b</b>	I felt anxious while giving an oral presentation to the rest of the class	.809
<b>Q33b</b>	I felt anxious when I had to speak informally to my English teacher out of the class	.790
<b>Eigenvalue</b>		2.693
<b>Variance extracted %</b>		67.327

Social Anxiety has been operationalized in three ways: social anxiety while living with family (A) comprised on items (34a, 35a, 36a, 37a), social anxiety while living with relatives (B) having items (34b, 35b, 36b, 37b),and social anxiety while living in a hostel (C) consists on items(34c, 35c, 36c, 37c). For the construct social anxiety (A) the value of Kaiser-Meyer-Olkin (KMO) is .763, and Bartlett's test of Sphericity is.000. All four items comprised one component.

Table 4: Component Matrix of Social Anxiety (A)

Sr. No	Question	Component 1
Q34a	I faced a lot of difficulties in studying due to problems with my family members	.765
Q35a	I felt anxious when my siblings interrupt me during my studies	.781
Q36a	I faced difficulties in my studies when many members in my family affect my study	.873
Q37a	I found that the environment of my family was not conducive to study	.739
<b>Eigenvalue</b>		2.504
<b>Variance extracted %</b>		62.590

For the construct social anxiety (B) the value of Kaiser-Meyer-Olkin (KMO) is .767, and Bartlett's test of Sphericity is.000, All four items comprised one component.

Table 5: Component Matrix Social Anxiety (B)

Sr. No	Question	Component 1
Q34b	I faced a lot of difficulties in studies while living with relatives	.865
Q35b	I felt home sick during study while living with relatives	.887
Q36b	I felt anxious that many members of my relatives affect my study	.864
Q37b	I found that the relative's environment was not conducive to study	.576
<b>Eigenvalue</b>		2.614
<b>Variance extracted %</b>		65.350

For the construct social anxiety(C) the value of Kaiser-Meyer-Olkin (KMO) is .784, and Bartlett's test of Sphericity is.000. All four items comprised one component.

Table 6: Component Matrix of Social Anxiety (C)

Sr. No	Question	Component 1
Q34c	I felt that staying in a hostel was incompatible with proper study	.913
Q35c	I faced a lot of difficulties in studying due to problems with my roommate	.842
Q36c	I felt home sick during study in hostel	.821
Q37c	I found that the hostel environment was not conducive to study	.775
<b>Eigenvalue</b>		2.818
<b>Variance extracted %</b>		70.456

Two self-constructed factors are made which are language anxiety and social anxiety. By averaging items on language anxiety of those who are taking English language classes (30a, 31a, 32a, 33a) and language anxiety of those who not are taking English

language classes and having general English anxiety (30b, 31b, 32b, 33b) and made one factor language anxiety. Similarly, by average while living with family (34a, 35a, 36a, 37a), social anxiety while living with relatives (34b, 35b, 36b, 37b), social anxiety while living in a hostel (34c, 35c, 36c, 37c) and made one factor social anxiety. Total numbers of factors are 6 exam anxiety, subject anxiety, library anxiety, language anxiety, presentation anxiety and social anxiety.

## 7.2 Reliability Analysis

The Cronbach alpha is designed to see the reliability of the constructs. In table no 8, The Cronbach alpha for this study ranges from 0.695 to 0.859 which is good for all constructs.

*Table 7: Cronbach alpha for the constructs*

<b>Construct</b>	<b>Alpha</b>	<b>No of Items</b>
<b>Exam Anxiety</b>	.695	4 (Q2, Q3, Q4, and Q5)
<b>Subject Anxiety</b>	.734	4 (Q8, Q9, Q10, Q11)
<b>Presentation Anxiety</b>	.687	2 (Q13, Q14)
<b>Library Anxiety</b>	.758	4 (Q26, Q27, Q28, Q29)
<b>Social Anxiety (staying with family)</b>	.798	4 (Q34a, Q35a, Q36a, Q37a)
<b>Social Anxiety (staying with relatives)</b>	.802	4 (Q34b, Q35b, Q36b, Q37b)
<b>Social Anxiety (staying with hostel)</b>	.859	4 (Q34c, Q35c, Q36c, Q37c)
<b>Language Anxiety (if taking English classes)</b>	.843	4 (Q30a, Q31a, Q32a, Q33a)
<b>Language Anxiety (if not taking English classes)</b>	.836	4 (Q30b, Q31b, Q32b, Q33b)

### 7.3 Correlation Analysis of the Study Anxiety and Grade Achievement

The purpose of using correlation is to see which variables are connected. Correlation coefficient is a numerical representation of the strength and direction of the relationship.

*Table 8: Correlation analysis of the variable of the study*

	CGPA	PA	LA	SuA	EA	SoA	LA	Mean	Standard deviation
CGPA	1								
PA	-.232**	1						3.2572	1.07712
LA	-.460**	.133**	1					3.3558	.98188
SuA	-.378**	.181**	.353**	1				3.3786	.98512
EA	-.511**	.284**	.303**	.348**	1			3.1881	1.11463
SoA	-.390**	.017**	.243**	.158**	.271**	1		3.4802	1.26481
LA	-.526**	.205**	.246**	.259**	.298**	.223**	1	3.2200	1.05496

The results showed that all of the anxiety sources (exam anxiety, subject anxiety, library anxiety, language anxiety, social anxiety and presentation anxiety) are significantly negatively correlated with the CGPA. So that there is a negative relation between study anxiety sources and grade achievements, when study anxiety increases grade achievement decreases. And another hypothesis (H<sub>7</sub>: Accepted). The mean and standard deviation of the final constructs are also calculated. The mean of social anxiety remained the maximum.

## 7.4 Multiple Regression Analysis

To determine the effect of anxieties on grade achievements  $F= 72.831$  ( $p (.000) < .01$ ) shows the overall goodness of the model. The coefficient of determination  $R^2 = .517$  means that 52% variation in CGPA is explained by its linear relationship with EA, LA, SuA, LA, SoA, and PA. All coefficients are negatively significantly affecting the grade achievements which shown that anxiety increases and grade achievement decreases. Only the presentation anxiety is insignificant. Results also showed that language anxiety is the most influential sources which effect the grade achievements of the students as standardized coefficient Beta =  $-.322$  remained larger.

Table 9: The Impact of Anxiety Sources on the Grade Performance

Variables	Coefficients (B)	Standard error	Standardized Coefficients	T	Sig.
<b>Language Anxiety</b>	-.131	.015	-.322	-8.598	.000
<b>Exam Anxiety</b>	-.098	.015	-.255	-6.412	.000
<b>Library Anxiety</b>	-.097	.017	-.222	-5.792	.000
<b>Subject Anxiety</b>	-.039	.017	-.091	-2.351	.019
<b>Social Anxiety</b>	-.061	.012	-.180	-4.888	.000
<b>Presentation Anxiety</b>	-.018	.014	-.045	-1.224	.222
<b>Constant</b>	4.417	.078		56.292	.000

## **8. Conclusion**

Almost students of every field suffer from educational anxiety. Even some excellent students have test anxiety and they get low grades sometimes (Bensoussan, 2012). Though, low ranks of anxiety can be useful for some students. The objective of the research is to identify the sources of study anxiety among the students of public and private universities of Lahore and see their impact on their grade achievements. We hypothesized that all of the study anxiety sources significantly affect the grade achievements of the students. The research identified the sources and their impact on student's grade achievements. Exploratory Factor analysis is performed to see the validity of each construct and find out 6 sources of study anxiety: exam anxiety, library anxiety, subject anxiety and presentation anxiety. The effect and the impact of study anxiety sources on grade achievements in the public and private universities of Lahore were also examined. The results of the correlation analysis showed that all of the anxiety sources are significantly negatively correlated with the CGPA. So that there is a negative relation between study anxiety sources and grade achievements,

The results of multiple regression analysis showed that five out of six constructs are significantly negatively effecting the grade achievements. When study anxiety increases grade achievement decreases. Presentation anxiety was effecting grade achievements negatively but not significantly. Language anxiety is the most influential source which effect the grade achievements of the students. This research study may easily be generalized for other universities of Pakistan. Future study can be done for coping strategies for anxiety. Libraries, educational departments should take action for helping students for reducing them anxiety before taking exams, giving class presentation, while going social, going into a library, while speaking foreign language.

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