



# International Journal of Literacy and Education

E-ISSN: 2789-1615  
P-ISSN: 2789-1607  
Impact Factor: 5.69  
IJLE 2023; 3(2): 29-33  
[www.educationjournal.info](http://www.educationjournal.info)  
Received: 16-05-2023  
Accepted: 24-06-2023

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## A study of the effects of academic anxiety on academic achievement of students

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### Abstract

Academic achievement is significantly and credibly predicted by academic anxiety. High levels of anxiety prevent students from performing at their best. The study's goals are to assess how academic anxiety affects students' academic achievement and to pinpoint gender variations in academic achievement. In this study, survey approach was employed. 200 students from the Jammu district's Government Degree Colleges participated in the survey. The data was analyzed using SPSS. Percentage analysis, regression, and the t-test were used for statistical testing. The results of the study show that academic anxiety significantly affects academic achievement and that there are substantial gender variations in academic achievement.

**Keywords:** Academic, anxiety, achievement, student

### Introduction

Anxiety is a common human emotion that affects people of all ages and has a significant impact on our psychological makeup. In times of danger, possible embarrassment, or stress, it serves as a vital alert system to guide kids through difficulties with ease. Anxiety may be helpful when it's under control and in a reasonable amount. However, if it intensifies, it may have a negative impact on relationships with others, one's wellbeing, and even result in medical and mental issues (Herrero *et al.*, 2006) <sup>[12]</sup>.

Anxiety may be influenced by a variety of outside influences. Among them are stress related to school, "stress in a personal relationship, stress at work, financial stress, stress brought on by an emotional trauma like the loss of a loved one, being a victim of crime, a natural disaster, experiencing sexual or physical abuse," and stress brought on by medication side effects.

According to estimates from (Vytal *et al.*, 2013) <sup>[21]</sup> and (Bandelow & Michaelis, 2015) <sup>[6]</sup>, anxiety affects 33.7% of the world's population, making it one of the most common mental health illnesses. It is a global issue that affects people from different ages, socioeconomic origins, and walks of life. However, university students, whose anxiety rates are on the rise, are particularly notable for their reaction to it. According to studies, 74% of college students experience anxiety. Given that it has a direct impact on their academic goals and general well-being, this number emphasizes how serious the problem is. (Aronin & Smith, 2016) <sup>[4]</sup>. Academic anxiety has real effects on cognitive performance and educational success in addition to being a psychological burden. Working memory, a cognitive ability essential for learning and academic performance, is one of its notable fatalities. Working memory problems brought on by worry might result in subpar academic performance (Hashempour & Aida, 2014) <sup>[11]</sup>. This negative effect on memory and cognitive functions might compromise students' educational experiences and prevent them from achieving academic success.

It is crucial to examine the nature of anxiety in order to fully appreciate the deep consequences of academic anxiety. According to Spielberger's definition of anxiety, it is "a subjective feeling of tension, apprehension, nervousness, and worry associated with arousal of the autonomic nervous system" (Vitasari *et al.*, 2010) <sup>[20]</sup>. It can appear in a variety of circumstances, whether there is or is not psychological stress, and emerges as a complex interaction of physical, emotional, and cognitive alterations (Afolayan *et al.*, 2013) <sup>[2]</sup>.

The dual character of anxiety is a fascinating aspect. A healthy amount of anxiety may be a driving force that inspires people to do great things, but too much worry can be a dangerous foe. Increased anxiety levels can have a negative impact on a person's mental and physical health, as well as their ability to engage in social interactions, pursue careers, and perform well in school (Afolayan *et al.*, 2013) <sup>[2]</sup>.

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Excessive worry in kids might provide real challenges to their academic progress. It can develop into a constant battle and go beyond simple anxiety before tests or presentations. This battle includes not only cognitive issues such as trouble focusing and remembering things, but also the emotional and physical toll it has on people.

An individual needs moderate degrees of anxiety to be motivated. Low levels of anxiety lead to lack of engagement and subpar academic results. Extreme anxiety, on the other hand, interferes with learning, focus, and concentration. Significant disruptions are made to student engagement and thought. In our classrooms, academic anxiety must not be disregarded or neglected. (Ante, 2023)<sup>[3]</sup>.

### Academic anxiety

Collegiate Panic Anxiety is a common emotional reaction to certain stimuli. While some degree of anxiety is normal, worrying too much may be harmful. It's possible that school anxiety may only become worse with time. According to (Huberty, 2010)<sup>[13]</sup>, When a student's performance in class falls, anxiety levels linked with particular academic assignments increase. Kids with social anxiety or school anxiety are common for teachers to encounter. The effects of social anxiety on a student's schoolwork are not to be discounted. A student with social anxiety may avoid participating in class group projects or may not feel comfortable asking for help. Social anxiety can occur alongside or be a source of academic anxiety. The ability to self-regulate has a positive effect on students' academic performance and anxiety levels (Ader & Erkin, 2010)<sup>[1]</sup>. Academic anxiety causes students to stress out over their studies. Some students may feel overwhelmed by any academic requirement. Some people may just get nervous about doing a given task, such as taking an exam. Anxiety may have positive as well as negative outcomes. Some students' anxiety really helps them learn.

### Academic Achievement

A key idea in education is academic accomplishment, which denotes the results of one's efforts in a learning setting like a school, college, or university (Moore, 2019)<sup>[17]</sup>. It acts as a concrete indicator of how well people have accomplished particular educational aims and objectives. These objectives, which often include a wide variety of cognitive abilities and information acquisition, are determined by educational institutions. As a result, academic performance is a complex concept that includes many different learning domains. Depending on the metrics employed to gauge it, academic performance might have different definitions and assessments. These measurements can be roughly divided into various categories:

#### Declarative and Procedural Knowledge

Within an educational system, academic success frequently depends on the acquisition of declarative knowledge (factual information and comprehension) as well as procedural knowledge (how to carry out tasks or solve issues).

#### Curriculum-Based Criteria

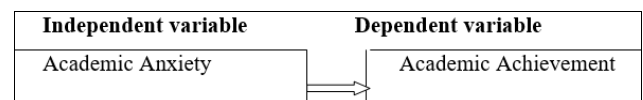
Commonly used measures of academic accomplishment include grades given by teachers and results on educational achievement exams. These standards provide information about a student's level of subject area mastery.

### Cumulative Indicators

Acquiring educational degrees, certificates, or diplomas might serve as a proxy for academic success. These cumulative indicators indicate a person's educational background and level of subject-matter competence (Steinmayr *et al.*, 2014)<sup>[19]</sup>.

### Research Framework

Two variables have been chosen to determine "effects of academic anxiety on academic achievement of students". These variables will be used to conduct an in-depth analysis of the impact of these tools on employee engagement. Below is a research framework illustrating the four variables that can be used to determine effects of academic anxiety on academic achievement of students.



### Research Design

The study design establishes which methodology is most appropriate for achieving a certain set of research objectives and under specified conditions. Using the initial research objectives, it is possible to design a methodical data collecting and analysis plan. Using a descriptive research technique, this article aims to study of the "effects of academic anxiety on academic achievement of students." Descriptive research can be conducted in a number of different ways, including qualitative and quantitative approaches. Quantitative and qualitative methods were used in this investigation. It takes an integrative method. Setting the scope and parameters of the study, as well as gathering and analysing information from participants, are essential activities in the research process. In this research, we explore study of the "effects of academic anxiety on academic achievement of students."

### Methods and Tools used

The data was gathered using a survey. Surveys are routinely used in a variety of ways to collect information on students' academic success and academic distress. Every survey uses a sample in order to identify or clarify the traits and attitudes of academic anxiety and academic accomplishment of pupils. Using a checklist, the impacts of academic anxiety on students' academic success were evaluated. And in this instance, 200 students from Govt. Degree Colleges of Jammu district who participated in a poll of various workplaces were the responders.

### Data Analysis

The statistical software SPSS 22.0 was used to examine the study's data. To dive further into the data we believed was most important, we employed statistical methods including analysis of variance and percent-based procedures. The most crucial elements of the investigation were highlighted with the aid of percentage analysis. When comparing and analyzing different data sets, percentages are an effective tool. It's simple to use this approach to reach your target audience. Once enough information is gathered, a complete image of the problem can be drawn. Graphs are a better way to visualize percentage analysis.

**Objectives**

- To evaluate effects of academic anxiety on academic achievement of students.
- To find gender wise difference in academic achievement.

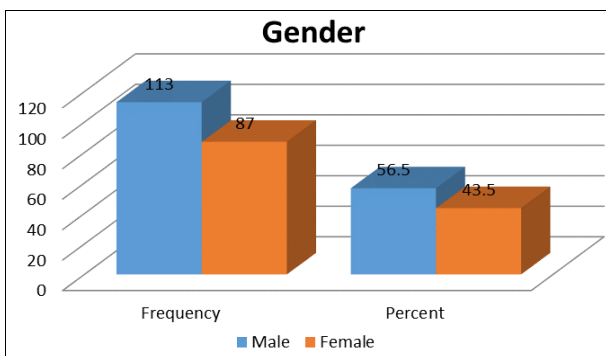
**Results**

This part has produced the desired outcome. a thorough explanation of the analysis done on the survey findings. It enables in-depth analysis of the Frequency and Percentage table with the aid of the graph. Regression was used for statistical assessments.

**Table 1:** Gender wise distribution of respondents

Gender		
	Frequency	Percent
Male	113	56.5
Female	87	43.5
Total	200	100.0

“The distribution of respondents by gender is discussed in the above table. In men, frequency is 113 and percentage is 56.5%. In females, frequency is 87 and percentage is 43.5%.”



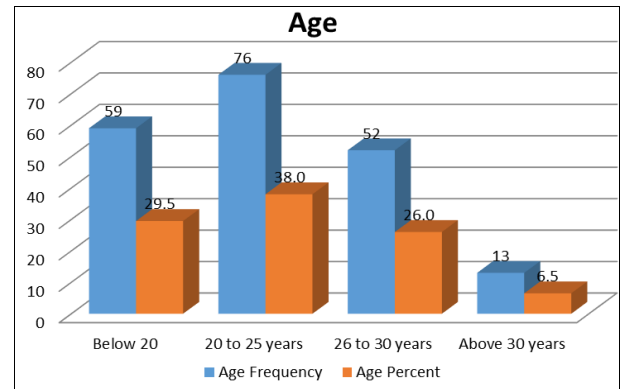
**Graph 1:** Graphical representation of gender wise distribution of respondents

**Table 2:** Age wise distribution of respondents

Age		
	Frequency	Percent
Below 20	59	29.5
20 to 25 years	76	38.0
26 to 30 years	52	26.0
Above 30 years	13	6.5
Total	200	100.0

The above table discusses age wise distribution of respondents. In below 20, frequency is 59 and percentage is 29.5%. In 20 to 25 years, frequency is 76 and percentage is 38%. In 26 to 30 years, frequency is 52 and percentage is 26%. In above 30 years, frequency is 13 and percentage is 6.5%.”

6.5%.”

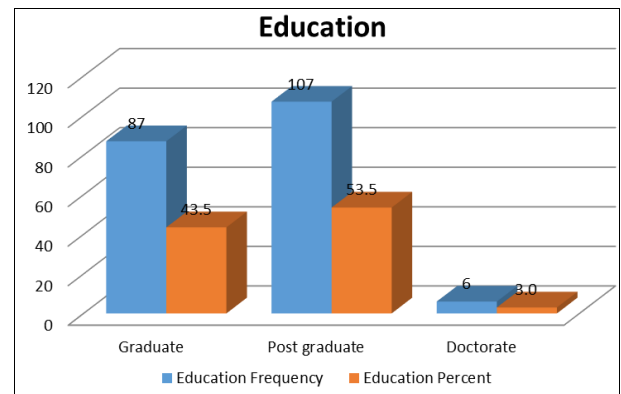


**Graph 2:** Graphical representation of age wise distribution of respondents

**Table 3:** Education wise distribution of respondents

Education		
	Frequency	Percent
Graduate	87	43.5
Post graduate	107	53.5
Doctorate	6	3.0
Total	200	100.0

The above table discusses education wise distribution of respondents. In graduate, frequency is 87 and percentage is 43.5%. In post graduate, frequency is 107 and percentage is 53.5%. In doctorate, frequency is 6 and percentage is 3%.”



**Graph 3:** Graphical representation of education wise distribution of respondents

**Table 4:** Regression test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416 <sup>a</sup>	.173	.169	7.96413

a. Predictors: (Constant), Academic anxiety

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2625.705	1	2625.705	41.397	.000 <sup>b</sup>
	Residual	12558.615	198	63.427		
	Total	15184.320	199			

a. Dependent Variable: Academic achievement  
b. Predictors: (Constant), Academic anxiety

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	33.276	2.089		15.928	.000
Academic anxiety	.390	.061	.416	6.434	.000

a. Dependent Variable: Academic achievement

To determine the levels of variability within a regression model and to create the framework for a test of significance, multiple regression analysis uses ANOVA. The aforementioned table clearly shows that the factors in the research are statistically significant. According to a regression analysis of academic anxiety and academic achievement. Academic anxiety influences academic achievement by 41%, with the remaining variance unexplained. As indicated by the R value (0.17), there is a significant impact of academic anxiety on academic

achievement (F=41.39, sign. value = 0.00) according to Anova table. These values indicate that "Academic anxiety has a significant effect on academic achievement." Variable in the above table of coefficients. B-coefficients are typically positive and significant. Since the dimensions of all indicators are identical, it is preferable to translate the B-coefficients rather than the beta coefficients. Significance value indicates "Academic anxiety has significant impact on academic achievement".

Table 5: T test

"Independent Samples Test"								
		"Levene's Test for Equality of Variances"		"t-test for Equality of Means"				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
"Academic achievement"	"Equal variances assumed"	5.782	.017	-3.328	198	.001	-4.04557	1.21551
	"Equal variances not assumed"			-3.246	164.857	.001	-4.04557	1.24623

The above table discusses gender wise difference in academic achievement. In academic achievement, sig. value is 0.01 which shows there is significant gender wise difference in academic achievement.

**Conclusion**

Academic anxiety has an effect on academic achievement. High academic anxiety students put in less effort and are less driven to succeed in school. However, it's possible for kids to have some little academic anxiety. According to the studies, academic anxiety significantly lowers academic achievement. Students' performance might suffer from academic worry in a variety of ways. Learning breakdown happens when the mental process falters. The performance of the kids suffers as a result. As a result, anxiousness related to academics must never be ignored. It may have serious and long-lasting consequences. Academic anxiety impairs a student's ability to learn and prevents them from performing well in class. Additionally, research shows that there are substantial gender differences in academic achievement.

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