The Impact of Anxiety on Academic Achievement of U.G. Students

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Abstract: The world is becoming more and more competitive. Parents desire that their children climb the ladder of performance to as high a level as possible. This desire for a high level of achievement puts a lot of pressure on students, teachers, and schools and in general, the educational system itself. In fact, it appears as if the whole system of education revolves around the academic achievement of students, though various other outcomes are also expected from the system. The researcher has reviewed the available literature on academic anxiety and their relationship with academic achievement. It is a generally accepted view that the anxiety plays a significant role in determining the academic achievement (Tobias, 1979). The present study is exploratory and descriptive in nature. Emphasis was on establishing the relationship and importance of anxiety in college academic achievement. For this purpose the correlation coefficient among the dependent variable, i.e., academic achievement with the independent variable anxiety has been calculated. To find the significance of difference between the mean scores of male and female students on anxiety scale and academic achievement; t-test was used. Further, t-test was also used to study the effect of high and low anxiety on academic achievement. The research method of the study was correlational.

Key Words: Anxiety, Academic Achievement, UG Students.

I. Introduction

Academic achievement is of paramount importance, particularly in the present socio-economic and cultural contexts. Obviously, in the school and colleges great emphasis is placed on achievement; right from the beginning of formal education. The college has its own systematic hierarchy, which is largely based on achievement and performance rather than ascription or quality. Thus, the school and college tend to emphasize achievement, which facilitates, among other things, the process of role allocation for the social system.

Problems concerning the academic under achievement or over achievement have been the subject of wide study. Some relate achievement to learning situations, while others relate it to intelligence, values, emotional intelligence, socio-economic status, academic anxiety, self-concept, and various other factors. But in this context, study of the relationship of academic achievement to anxiety of the students also has been of great importance to researchers. Researchers have been looking at the correlation of anxiety and the effect of academic performance among school students, they found that among high school students with higher level of anxiety have lower academic performance (McCraty, 2007), and greater anxiety would be associated with poorer academic achievement (Luigi et al., 2007).

Ormord (2000) has viewed about the relationship between anxiety and academic achievement that anxiety and academic achievement has been a difficult relationship to clearly elucidate. Academic achievements are related scholastic aptitude, it seems reasonable to suggest that more able students can spend their time in more non-academic activities. Researchers revealed that high levels of anxiety influence on the decrease of working memory, distraction, and reasoning in students (Aronen et. al., 2004).

Here, it is pertinent to point out that academic achievement being the function of total personality in the socio-physical environment has the cognitive, conative and affective domain, each playing its definite role (Binder et. al. 1970). Given then, that the inclusion of personality variables does increase the efficiency of attempts to predict school achievement, the next question might be to ask which of the many personality measures potentially available are most important. A major portion of the research relevant to this question involves studies, which have been attempted to relate anxiety and to school achievement scores.

Academic anxiety can become more detrimental over time. As a student’s academic performance suffers, the anxiety level related to certain academic tasks increases (Huberty, 2012). Academic anxiety is a kind of state anxiety which relates to the impending danger from the environment of the academic institutions including teachers, certain subjects like Mathematics, English etc (Meetei, 2012).

Reilly and Lewis (1991) say that anxiety is hampering for young people's academic achievements. Changing schools, Parents divorcing or pressure of work, exams and test can all be difficult events for students. Anxiety is
strongly linked with emotional depression. Anxiety has been linked to poor academic performance. High levels of academic anxiety can negatively affect working memory (Owens, Stevenson, Hadwin, & Norgate, 2012).

II. Operational Definition of the Terms Used
Operational definitions of the key words used in the title of study have been given below;

III. Anxiety
The word anxiety has been derived from the Latin word ‘anxietas’ which commonly connotes an experience of varying blends of uncertainty, agitation and dread. Anxiety is a special variety of fear experience in response to an anticipated threat to self-esteem. It is subjective experience of the individual, which means the painful and uneasiness of mind. In Psychological literature anxiety has been generally defined as an unpleasant emotional state in which a present and continuing strong desire or drive seems likely to miss its goal, a fusion of fear with the anticipation of future evil, marked and continuous fear of low intensity, a feeling of threat, especially a fearsome threat without the person’s being able to say what he thinks threatens.

IV. Academic Achievement
Achievement encompasses student ability and performance, it is multidimensional, it is intricately related to human growth and cognitive, emotional, social and physical development, it reflects the whole child, it is not related to a single instance, but occurs across time and levels, through a student’s life in school and on into post secondary years and working life.

V. Under Graduate Students
Here in this study students studying in U.G. Final Year have been taken as under graduate students.

VI. Objectives of the Study
The objectives formulated for the present study were:
- To find out the impact of anxiety on academic achievement of undergraduate students.
- To find out the gender differences in anxiety among undergraduate students.
- To find out the gender differences in academic achievement among UG students.

VII. Hypothesis
In the light of forgoing objectives following null hypotheses were framed for the present research:
- High, moderate, and low level of anxiety would not be correlated with academic achievement.
- Students who score high and low on anxiety scale would not differ significantly on academic achievement.
- Female students would not show any difference in level of anxiety as compared to male students.
- The gender does not affect the scores on academic achievement of the UG students.

VIII. Sample
The sample of the present study consisted of 500 students studying in U. G. final year and having a age range of 19-22 years drawn from three universities of Varanasi city (UP), namely Banaras Hindu University, Sampurnanand Sanskrit University, Mahatma Gandhi Kashi Vidya Pith. The sample of students studying in the class U. G. Final year was selected on the basis of quota random sampling technique.

IX. Research Tool
The Academic Anxiety Scale (AAS) developed by Mishra, D. K. (2004). The AAS consists of 50 items and it is suitable for 17 to 23 year old adolescents. Two types of reliability have been demonstrated with the AAS, in terms of the internal consistency of the instrument, split-half (.79) and test-retest reliability (.82). The percentage of marks obtained in the UG final year examination was taken as measure of academic achievement.

X. Data Collection, Analysis and Results
The final data of the present study was collected by administration of questionnaire related to academic anxiety. Later on, the students sat for their annual examination after one month, when their results were declared, aggregate scores of each student were noted from the result-sheet in their respective faculty or University. In the present investigation, to test the first hypothesis the scores on the academic anxiety and academic achievement were correlated with each other. Coefficients of correlation between various levels of anxiety and their corresponding scores of academic achievement have been presented in Table 1.0.
Table 1.0

Coefficients of correlation between High, Moderate and Low Anxieties with Academic Achievement

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Academic Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Anxiety</td>
<td>127</td>
<td>-0.452*</td>
</tr>
<tr>
<td>Moderate Anxiety</td>
<td>260</td>
<td>0.369**</td>
</tr>
<tr>
<td>Low Anxiety</td>
<td>113</td>
<td>0.659**</td>
</tr>
</tbody>
</table>

* p > 0.05  
** p > 0.01

Correlation analysis was performed to find the relationship between anxiety and academic achievement. According to Table 1.0 it was found that low and moderate anxiety is positively correlated with academic achievement. The values of coefficients of correlation were found to be 0.659 and 0.369 for low and moderate anxiety respectively, which were significant at 0.01 level; and further, it was found that high anxiety is negatively correlated with academic achievement. The correlation coefficient between high anxiety and academic achievement was found to be -0.452, which is significant at 0.05 level. Thus above results show that the formulated first hypothesis is rejected which states that high level of anxiety, moderate level of anxiety, and low level of anxiety would not be correlated with academic achievement.

To test the second hypothesis t-ratio was calculated between the academic achievement scores of students who score high and low on anxiety scale. The results of this comparison have been presented in Table 2.0

Table 2.0

Significance of Difference between High and Low Anxiety Scores in Relation to Academic Achievement

<table>
<thead>
<tr>
<th>Anxiety</th>
<th>Academic Achievement</th>
<th>High/low</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;= 105.00</td>
<td>127</td>
<td>54.84</td>
<td>3.96</td>
<td>238</td>
<td>0.21</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 105.00</td>
<td>113</td>
<td>54.60</td>
<td>3.97</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p > 0.05  
** p > 0.01

Further, t-ratio was calculated between the academic achievement scores of the students who score high and low on academic anxiety scale. Table 2.0 shows that the value of t-ratio was found to be 0.21, which is non significant at any desired level.

To test the next hypothesis t-ratio was computed between the male and female students’ mean scores of anxiety. Table 3.0 shows the results of t-test, which was applied to ascertain the statistical significance of mean scores on academic anxiety of male and female students.

Table 3.0

Significance of Difference between Academic Anxiety Scores of Male and Female Students

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>Male</td>
<td>250</td>
<td>93.54</td>
<td>13.88</td>
<td>2.04*</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>250</td>
<td>99.18</td>
<td>13.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p > 0.05

** p > 0.01

Similarly, t-ratio was computed between male and female students mean scores of anxiety, to ascertain the significance of difference between the mean scores of the academic anxiety of the male and female students. Table 3.0 clearly indicates that the value of t-ratio is found to be 2.04, which is significant at 0.05 level. This result shows that female students showed higher level of anxiety as compared to their male counterparts. Thus, third hypothesis gets rejected which states that female students would not show any difference in level of anxiety as compared to male students.

To test the last hypothesis t-ratio was computed between the male and female students’ mean scores on academic achievement. The t-ratio of scores on academic achievement of male and female students has been presented in Table 4.0

Table 4.0

Significance of Difference between Mean Scores on Academic Achievement of Male and Female Students

<table>
<thead>
<tr>
<th>Variables</th>
<th>Gender</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>Male</td>
<td>250</td>
<td>57.98</td>
<td>6.81</td>
<td>2.81**</td>
<td>0.01</td>
</tr>
<tr>
<td>Achievement</td>
<td>Female</td>
<td>250</td>
<td>61.48</td>
<td>5.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p > 0.05

** p > 0.01

The above table 4.0 shows that the t-ratio of the above mean scores was 2.81, which was significant at 0.01 level. It means that the average academic achievement score of female students was better to that of male
students. It led to the rejection of last hypothesis, which states that the gender does not affect the scores on academic achievement of the students.

**XI. Conclusion**

On the basis of the results of the present study we can conclude that:

- Low level of anxiety was found to be positively correlated with academic achievement. So, we can say that when academic anxiety increases within the limit of low anxiety, academic achievement also increases and when academic anxiety decreases within the limit of low anxiety academic achievement decreases.
- Moderate level of anxiety was found to be positively correlated with academic achievement. So, we can say that when academic anxiety increases within the limit of moderate anxiety, academic achievement also increases and when academic anxiety decreases within the limit of moderate anxiety academic achievement decreases.
- High level of anxiety was found to be negatively correlated with academic achievement. So, we can say that when academic anxiety increases within the limit of high anxiety, academic achievement decreases and when academic anxiety decreases within the limit of high anxiety academic achievement also increases.
- Significant difference was not found between the students who scores high and low on academic anxiety scale, i.e., extreme scores of high anxiety and extreme scores of low anxiety does not affect academic achievement.
- Male and female students significantly differ on academic anxiety score, i.e., female students score high on academic anxiety scale as compared to male students.
- Gender of the students significantly affects scores on academic achievement, i.e., female students score high on academic achievement as compared to male students.

**XII. References**