

Test Anxiety and Academic Achievement of High School Students

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Anxiety negatively affects the physical and mental health of the individual and ultimately personal, social, occupational and educational performance is badly affected. The purpose of the present study was to know the impact of test anxiety on academic achievement of high school students. Descriptive survey method was used to conduct the study. A sample of 200 boys and girls of board and non-board classes (9th and 10th grade) of Bhilai city were selected as a sample of the present study through purposive sampling technique. Test anxiety was measured by the self-made standardized tool and the marks obtained by the students in their preceding annual examination considered as a level of their academic achievement. Finding revealed that achievement is not much affected by test-anxiety in non-board classes. Whereas in board classes girls seems to be anxiety prone then boys and their achievement seems also affected by the test-anxiety.

Keywords: Test Anxiety, Academic Achievement

Every organism in life at some time or the other has to face a complicated or dreadful situation. At this juncture one has to deal with such situation which results in tension, anxiety, conflict or phobia. Thus, anxiety is also considered as a block to an activity. A person who suffers from anxiety may not be able to devote his full energy in the performance or task. Many psychologists considered that anxiety interferes with activity and so learning is impeded. Anxiety aroused during examination, which many a time effect performance. This type of anxiety has been termed as test-anxiety.

Hancock, Dewson R. (2001) has studied an effect on test anxiety and evaluation threat on student's achievement and motivation. Statistically significant interactions revealed that

particularly the test anxious students, performed poorly and were less motivated when exposed to highly evaluative classrooms. Ndirangu's, et.al (2008) has study on relationship between test anxiety and academic performance in secondary school. He found statistically significant difference between test anxiety levels before and after examination. High anxiety is experienced before the examination in all subjects equally by both boys and girls.

A study conducted by Nicholson (2009) to explore the effects of test anxiety on student achievement of grade 11 students, revealed that anxiety and achievement are related to each other. Khalid & Hasan (2009) conducted a study on a purposively selected sample of 187 undergraduate students to explore the

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relationship between test anxiety and academic achievement and found that students with academic achievement have low test anxiety scores and vice versa. Several researchers explored gender differences with respect to test anxiety and found that females have higher levels of overall test anxiety than males (Syokwaa et al., 2014).

Anxiety is a human emotion consisting of fear and uncertainty that typically appears when an individual perceives an event as being a threat to the ego self-esteem (Sarason, 1988). In some instances, anxiety can be helpful. However when taken to extremes it may produce unwarranted result. When students develop an extreme fear of performing poorly on an examination, they experience test anxiety. Test anxiety is a major factor contributing to variety of negative outcomes including psychological distress, academic underachievement, academic failure and insecurity (Hembree, 1988). Therefore, the need to examine current prevalence of low academic achievement and its causes had prompted this study to be undertaken. The main objective of the present study is to determine the study of test anxiety and academic achievement among high school students in the context of board and non-board classes.

Objectives:

According to the need and purpose of the study the researcher has framed the following objectives for the present study:-

1. To study the test anxiety of 9th and 10th grade students.
2. To study the academic achievement of 9th and 10th grade students.
3. To study the effect of gender on test anxiety of 9th grade students.
4. To study the effect of gender on test anxiety of 10th grade students.
5. To study the relationship between test anxiety and academic achievement of 9th and 10th grade boy and girl students.

Hypotheses:

Considering the objectives of the study the investigator framed the following hypotheses:-

H₀₁: There would be no significant difference between test anxiety of 9th and 10th grade students.

H₀₂: There would be no significant difference between academic achievement of 9th and 10th grade students.

H₀₃: There would be no significant effect of gender on test anxiety of 9th grade students.

H₀₄: There would be no significant effect of gender on test anxiety of 10th grade students.

H₀₅: There would be no significant relationship between test anxiety and academic achievement of 9th and 10th grade students.

METHOD:

Descriptive survey method was used to conduct the study. 200 high school students of Bhilai city from 9th and 10th grade were selected as a sample of the present study through purposive sampling technique.

Tools

➤ In the present study the researcher has used standardized tool as Test Anxiety Scale, developed by V.P. Sharma to collect data regarding test anxiety. This was a five-point scale, consisted of 25 items. Each item carried 5 responses ranging from minimum to maximum levels of test anxiety. Time was limited to 30 minutes. The reliability coefficient has been determined by using the following methods. Coefficient of stability by Test-Retest Method (after 10 days): $r_n = .927$. Coefficient of Internal Consistency by Split Half Technique: Odd-Even Method using Spearman Brown Formula: $r_n = .876$. Predictive validity were calculated using Teachers Rating $r = .768$ and Internal Marks $r = .743$

➤ The marks obtained by the students in their preceding annual examination considered as the level of their academic achievement. The scored data have been analysed and interpreted by

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following the statistical techniques like Mean, Standard Deviation, t-value and correlation.

To test the above hypothesis mean score of test anxiety of students studying in 9th and 10th grade were calculated which is presented in the table for interpretation of data.

Results and Discussion:

H₀₁: There would be no significant difference between test anxiety of 9th and 10th grade students.

Showing the scores of test anxiety of 9th and 10th grade boy and girl students

DESCRIPTION	N	M	S.D.	't'	REMARK
9th grade Test Anxiety	100	69.41	11.84	0.91	Insignificant
10th grade Test Anxiety	100	68	9.98		
df=198 P>0.05					

The table shows that obtained mean of test anxiety of 9th and 10th grade students were 69.41 and 68 and standard deviation were 11.84 and 9.98 respectively. By employing the 't-value' it comes to 0.91 which is less than the tabulated t-value=1.97 at 0.05 level with df=198 and it is found to be insignificant. Hence, our proposed hypothesis is accepted.

H₀₂: There would be no significant difference between academic achievement of 9th and 10th grade students.

To test the above hypothesis mean score of academic achievement of students studying in 9th and 10th grade were calculated which is presented in the table for interpretation of data.

Showing the scores of the Academic Achievement of 9th and 10th grade students

DESCRIPTION	N	M	S.D.	't'	REMARK
9th grade Academic Achievement	100	73.66	13.52	1.36	Insignificant
10th grade Academic Achievement	100	70.95	14.58		
df=198 P>0.05					

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The table shows that obtained mean of academic achievement of 9th and 10th grade students were 73.66 and 70.95 and standard deviation were 13.52 and 14.58 respectively. By employing the 't-value' it comes to 1.36 which is less than the tabulated 't'-value=1.97 at 0.05 level

with df=198 and it is found to be insignificant. Hence, our proposed hypothesis is accepted.

H₀₃: There would be no significant effect of gender on test anxiety of 9th grade students.

To test the above hypothesis mean, standard deviation and 't'-value were calculated from the scores which are shown in the following table.

Showing the scores of effect of Gender on test anxiety of 9th grade students

DESCRIPTION	N	M	S.D.	't'	REMARK
Boys	50	69.72	8.65	0.261	Insignificant
Girls	50	69.10	14.43		
		df=98	P>0.0		

The table shows that the obtained mean of test anxiety of boys and girls of 9th grade students were 69.72 and 69.10 and standard deviation were 8.65 and 14.43 respectively. By employing the 't'-value it comes to 0.261 which is less than tabulated 't'-value =1.98 at 0.05 level of significance with df=98 and it is found to be

insignificant. Hence, our proposed hypothesis is accepted.

H₀₄: There would be no significant effect of gender on test anxiety of 10th grade students.

To test the above hypothesis mean, standard deviation and 't'-value were calculated from the scores which are shown in the following table.

Showing the scores of effect of Gender on test anxiety of 10th grade students

DESCRIPTION	N	M	S.D.	't'	REMARK
Boys	50	66.04	10.67	2.02	Significant
Girls	50	69.96	8.91		
		df=98	P>0.0		

The table shows that the obtained mean of test anxiety of boys and girls of 10th grade students were 66.04 and 69.96 and standard deviation were 10.67 and 8.91 respectively. By employing the 't'-value it comes to 2.02 which is more than tabulated 't'-value =1.98 at 0.05 level of significance with df=98 and it is found to be significant. Hence, our proposed hypothesis is rejected.

H₀₅: There would be no significant relationship between test anxiety and academic achievement of 9th and 10th grade students.

To test the above hypothesis Karl Pearson's Product Moment of co-relation was calculated from the scores which are shown in the following table.

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Relationship between test anxiety and achievement of 9th and 10th grade boy and girl students

Variables	Calculated 'r' value	Remark
Test Anxiety v/s Academic Achievemem	0.454	Significan

To measure the relationship between test-anxiety and achievement by applying Karl Pearson's coefficient of correlation technique was found to be 0.454 which is significant at 0.01 level of significance. It was inferred that there is a positive correlation between test anxiety and achievement of 9th and 10th grade boy and girl students. Hence our proposed hypothesis is rejected.

In this study the researcher found insignificant difference in the test anxiety of 9th and 10th grade students and in the academic achievement of 9th and 10th grade students. Further the results also revealed that there is an insignificant difference in the effect of gender on test anxiety of 9th grade students. Whereas the researcher found a significant difference in the effect of gender on test anxiety of 10th grade

students, which is significant at 0.05 level of significance.

The result showed that test anxiety was positively correlated with academic achievement ($r = 0.454$), which indicates that academic achievement is low when test anxiety is high. Similar relationship between test anxiety and academic achievement was revealed by other investigators (Yousefi et.al, 2010 & Vitasari, et.al. 2010). They found that individuals with high levels of anxiety tend to do worse on cognitive tests.

Conclusion:

Hence, it can be conclude that academic achievement has been affected by the test anxiety in both the groups; test anxiety is something that impact students from all ethnic backgrounds and grade levels. Helping students learn to effectively manage such anxiety is a challenging task that requires a genuine team effort. Students, parents, teachers, school counsellors and school administrators must also find ways to be actively involved in reducing test anxiety. We live in a test taking society and when students are anxious during tests, they are less likely to perform up to their academic potential. The findings of the present research suggest that test anxiety adversely affects the performance of the school students and female students have tested high level of test anxiety than male students.

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