

TEST ANXIETY AND ACADEMIC ACHIEVEMENT OF HIGH SCHOOL STUDENTS IN KOKRAJHAR DISTRICT

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Abstract:

Test anxiety has become one of the most burning issues of modern school education. Academic Achievement of students is very much depending upon the test anxiety. Present research study was carried out on a sample of 684 high school students. Sample was drawn from different high schools of Kokrajhar District, (Assam)India by employing purposive sampling technique. Analysis was done by calculating simple percentage and Pearson Correlation (r). A wide range of literature review was done before conducting the study. Findings of the study revealed that a significant negative correlation was found between academic achievement and attest anxiety of high school students. Further researches are suggested for more generalised results in relation to other variables like gender, management type of institution, locality, medium of instruction, socio-economic status of the parents etc.

Keywords: Academic anxiety, academic achievement, High School students

1. Introduction:

Identifying the factors influencing students' academic achievement and performance is a primary goal of educational researchers. Test anxiety is a major predictor of academic achievement. At present, under the formal education system, examination and achievement of the students in those examinations play a vital role as their future mostly depends on this. Scores which they get in the examination decide their scope in the field of higher education and thus it is a predictor of their career enhancement too. Performing well in the examination in order to achieve higher scores somehow becomes mandatory and thus it develops a lot of examination anxiety among the students.

Test anxiety can be defined as the reactions to stimuli that are associated with a person's experience of testing situations (Sieber, 1980). It can also be defined as the reaction that students exhibit during, before or after examinations.

Now-a-days testing has become an inherent part of our modern society. Not only in the field of education, but in every sphere of life and many important choices or selections are based on test scores. Spielberger and Vag (1995) pointed out that scores of achievement tests and academic performance are widely used in evaluating applicants for jobs and admissions into various educational programs. Examination stress and test anxiety have become pervasive problems in modern education system. Sarason (1959) said that people live in a test-conscious and test-giving culture where the lives are in part determined by their performance in the test. Spielberger and Sarason said that students with high test anxiety generally possess lower academic achievement; whereas students with moderate levels of test anxiety perform the best. Hembree (1988) also stated that highly anxious students generally commit more errors in comparison to the others. Many studies have also revealed that test anxiety is negatively associated with academic achievement (Rezazadeh & Tavakoli, 2009; Pleg, 2009). Jain (2012) also found a negligible negative correlation between academic anxiety and academic achievement irrespective of genders.

A large number of studies supported the views of Spielberger and Sarason by stating that students with higher levels of anxiety have low academic achievement (Luigi, *et al.* 2007; Hamza, 2007; Sena, *et al.* 2007; McCraty, 2007; Rana & Mahmood, 2007; Kumar & Karimi, 2010; Gaurdy, & Spielbergr, 1971; Hancock, 2001; Cassady Johnson, 2002; Jing, 2007; Pleg, 2009; Ali, Awan, Batoool, & Muhammad, 2013).

The high school in Assam refers the grades 9 and 10 under secondary stage of education. It is a very important stage because it provides a sound foundation for the future higher education. But, due to academic anxiety caused by different factors like school system, family environment, social environment, socio-economic status of the parents, high expectations of family and society etc. students become test anxious which again negatively affect their performance during tests. Academic achievement is affected by several factors and test anxiety is one of them. The present study is an attempt to reveal the levels of test anxiety of the high school students before the

examination, to find out their academic achievement with the help of HSLC result and also to find out the relationship between test anxiety and academic achievement.

2. Significance of the study:

The present study has mainly tried to focus on the relation between test anxiety and academic achievement of the high school students of Kokrajhar district. The place is growing slowly and still fails to provide excellent educational facilities to the students of this area. Hence, the researcher has found it very significant to conduct the study in such an area which is developing gradually through various struggles and movements. It is situated in the North-Eastern region of India. It is predominantly inhabited by the people of Bodo community. But, people from different communities like Assamese, Bengali, Nepali, Santali and many other also live peacefully here. It is an administrative district of Bodoland Territorial Council. A large number of students appear every year in the high school final examination which is known as HSLC from this district. Hence, the researcher found it very much suitable to investigate the levels of test anxiety among high school students in relation to their academic achievement irrespective of their community, gender, religion, socio-economic status, medium of instruction etc.

3. Objectives:

The objectives of the present study are mentioned below-

1. To study the different levels of Test Anxiety.
2. To find out the academic achievements of the students.
3. To study the relationship between test anxiety and academic achievement of high school students.

4. Delimitations of the study:

- The findings of the study are delimited to the students of Kokrajhar District in Assam (India) only.
- Students appeared in HSLC examinations are selected to conduct the study.
- The present study only covers the students from academic session 2015-2016.
- Schools are selected under the Board of Secondary Education, Assam only.

5. Methodology:

Before executing any research, it is important to set a clear methodology. A systematic plan is necessary to find suitable answers of the research questions. Methodology reflects the complete structure of the study. The researcher includes different steps in research plan to find some suitable outcome of the problem. The methodology of the present study is discussed below-

5.1 Method used in the present study:

Descriptive researches are designed to gather information about the present status of any phenomenon. Here, the researcher investigates the event in its original form. In the present study, the investigator has used the Descriptive Survey method.

5.2 Population:

Population of the present study covers total 6845 students who appeared in the HSLC examination from Kokrajhar district during the academic year 2015-2016. They are considered as the population of the study irrespective of their gender, medium of instruction, management type of the institution etc.

5.3 Sample:

For the present study Purposive Sampling technique was used and 10% of the population i.e. 684 students were considered as the sample to collect data.

5.4 Variables:

The variables of the present study are mentioned below:

1. Dependent variable: Academic achievement
2. Independent variable: Test anxiety

5.5 Tools used for Data Collection:

In the present study the researcher has used one standardized tool i.e. 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 for giving responses to all the items.

Final results or ranks achieved by the students in the HSLC examination (year 2016) were considered as an index of their level of Academic Achievement. Personal data Sheets were developed by the investigator to collect the necessary information of the students.

5.6 Collection of data:

After completing the selection process of sample, the investigator visited different high schools in Kokrajhar district personally to collect the primary data. The investigator administered the Test Anxiety Scale on a total number of 684 high school students. This test was conducted just before 3-6 months (September-November, 2015) of the HSLC examination (February, 2016). Full freedom was given to the students to ask anything doubtful or difficult during the test. After 30 minutes, the investigator collected the filled scale. Regarding academic achievement, the investigator had to wait till the result was declared by the board (May, 2016). After collecting the results of each sample from the respective schools the findings of the studies were summarized. Secondary data was collected by the investigator from different office records, articles, journals etc.

6. Findings:

After collecting the required data, the next phase is to analyze and interpret it correctly. Here, the investigator tries to make meaningful interpretation of the raw data. In the following discussion we may find detailed information about various findings of the present study-

6.1 Levels of Test Anxiety of high school students:

In the present study the investigator had collected data regarding the test anxiety of high school students, who appeared in the HSLC examination in 2016. Test Anxiety Scale of V. P. Sharma was used to collect data. The investigator has tried to find out the different levels of test anxiety as categorized by the test developer on the basis of the different ranges of scores. The collected data is mentioned below-

Table 1: Levels of Test Anxiety

Levels of Test Anxiety	Number of students	Percent (%)
HIGH	245	35.76
LOW	159	23.26
NORMAL	280	40.98
Total	684	100

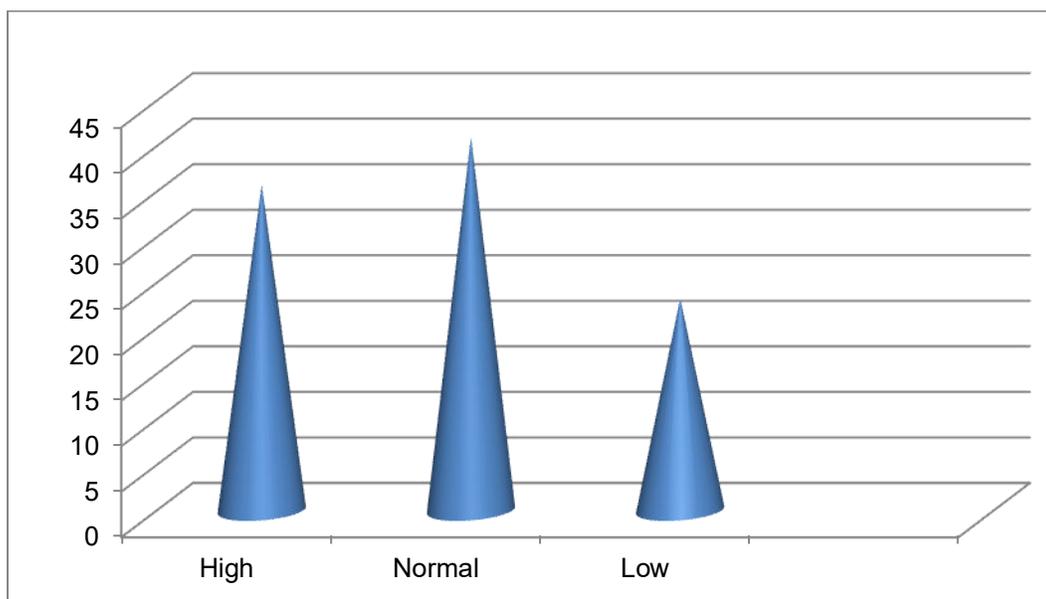
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above

mentioned data represents different levels of test anxiety among the high school students selected from different institutions. According to the norms of the test stated by the test developer, scores

between 75th percentile and above indicate ‘High Test Anxiety’, scores between 25th percentile and below indicate ‘Low Test Anxiety’ and scores between percentile 25 and 75 indicate ‘Normal Test Anxiety’. It can be seen in the above mentioned table that 35.76% high school students possess High test anxiety as 40.98% students possess Normal test anxiety and 23.26% possess Low test anxiety. Hence, it can be concluded that majority of the high school students possess Normal Test Anxiety. These levels can also be shown with the following graphical representation of data-

Fig. 1: Levels of Test Anxiety



6.2 Academic achievement of students:

Here, we have found the achievement of the sample students in the HSLC examination, 2016. The Secondary Board of Education, Assam categorized its students under three divisions particularly on the basis of their scores. The achievement of the students can be clearly shown in the following table-

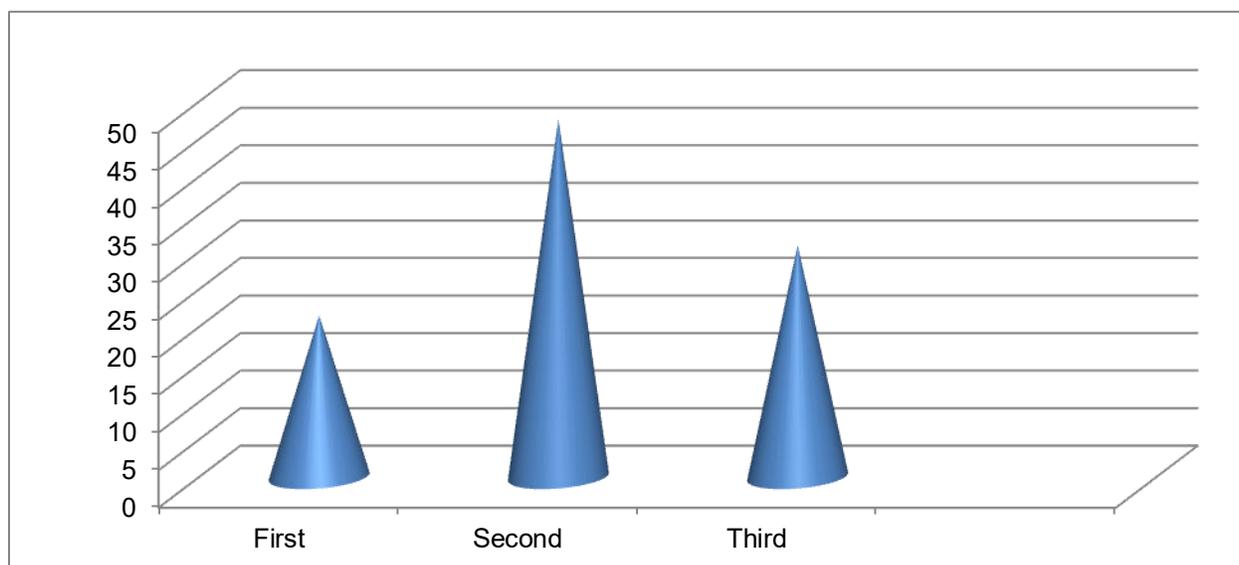
Table 2: Academic Achievement of sample students

Divisions	Number of students	Percent (%)
First (1 st)	147	21.49
Second (2 nd)	326	47.66

Third (3 rd)	211	30.85
	684	100

Out of the 684 students majority of the students (47.66%) secured second division. 30.85% students secured third division and lowest 21.49% students secured first division. It is quite normal that the number of students securing first division is less as it requires higher percentage. The findings are shown below with the help of graphical representation-

Fig. 1: Academic Achievement of sample students



6.3 Relation between Test Anxiety and Academic achievement:

Test anxiety is nothing but a specific and situational expression of emotion. Hence, it is quite obvious that the thought and feeling of securing higher marks in the exam will also affect the levels of test anxiety. Different researchers in their works have also established the fact that these variables are correlated. Keeping this fact in mind, the investigator has made an attempt to study the relationship between test anxiety and academic achievement of the high school students and

for the purpose product moment co-efficient of correlation is computed. The collected data was analyzed and shown below-

Table No. 3: Co-efficient of correlation between Test Anxiety and Academic Achievement

Variables	Correlation coefficient	Level of significance
Test anxiety Academic Achievement	- 0.82	Significant at 0.05 level

The result shown above has revealed a significant outcome. It has shown that the relationship between Test Anxiety and Academic achievement of high school students ($r= 0.082$) is negative and significant, which means an increase in the test anxiety will decrease the academic achievement and vice versa.

7. Conclusion:

A little anxiety or pressure during the test allows the students to be attentive and focused. But, excessive anxiety will always hamper their test performances. Academic achievement of students is very much dependent upon the curriculum structure, school environment, quality of teachers, teaching methods, teaching aids etc. When a student gets all the educational facilities properly, chance of test anxiety is quite less. In the present research, a significant negative correlation was found between the test anxiety and academic achievement of students. Thus, it is necessary for teachers, parents, administrators and other concerned persons to ensure better educational environment with all required facilities which would help the students to perform better.

References

- Alcala, F. R. (2002). Making oral tests more human and less anxiety generating. *Humanising Language Teaching*. 4 (4):1– 3.
- Bhansali, R. and Trivedi, K. 2008. Is academic anxiety gender specific: a comparative study. *Journal of social science* 17(1): 1-3.
- Cassady, J.C. (Ed.). 2010. *Anxiety in the schools: The causes, consequences, and solutions for academic anxieties*. New York, NY: Peter Lang. Anxiety and Depression Association of America.

- Cassady, J.C. and Johnson, R.E. 2002. Cognitive test anxiety and academic performance, *Contemp. Eclue. Psychol* 27(2): 27- 295.
- Culler, R. & Holahan.C. (1980). Test anxiety and academic performance: The effects of study-related behaviours". *Journal of Educational Psychology* 72 16-20.
- Everson, H., & Millsap, R. (1991). Isolating gender differences in test anxiety: confirmatory factor analysis of the Test Anxiety Inventory. *Educational & Psychological Measurement*, 51, 243-251.
- Farooqui, N.Y., Ghani, Rabia and Spielberger, D.C. 2012. Gender difference in test anxiety and academic performance of medical students. *International journal of psychology and behavioural science* 2(2): 38-43.
- Ginger, E., Ramsey, G. and Driscoll, R. 2010. Test anxiety programme and test gains with nursing classes. *Westside Psychology, Knowledge Tennessee*, pp. 1-7.
- Gaudry, E., & Spielberger, C. (1971). *Anxiety and educational achievement*. New York: Wiley.
- Good, C.V. 1973. *Dictionary of education*, New York, McGraw Hill Book Company, p.7.
- Hamzah, M.H. 2007. Language anxiety among first year Malay Students of the International Islamic College: An investigation of L2 skills, sources of anxiety and L2 performance. A master dissertation in Human Science, IIUM, Malaysia.
- Hancock, D.R. 2001. Effect of test anxiety and evaluative threats on students' achievement and motivation. *The journal of educational Research* 94(5): 284-290.
- Hembree, R. (1988). Correlates, causes, effects, and treatment of test anxiety. *Review of Educational Research*, 58, 47-77.
- Jain, A. 2012. Effect of academic anxiety and intelligence on the academic achievement of the elementary level. *Asian journal of Multidimensional Research* 1(4): 90-95.
- Jing, H. 2007. Analysis on the relationship among test anxiety, self-concept academic competency. *Journal of US-China Foreign Language* 5(1): 48-51.
- Kumar, V. and Kumari, A. 2010. Mathematics anxiety, mathematics performance and overall academic performance in high school students. *Journal of the India Academy of Applied Psychology* 36(1): 147-150.

- Luigi, M., Francesca, D., Maria, D.S., Eleonora, P., Valentina, G.D. and Benedtto, V. 2007. The role of anxiety symptoms in school performance in a community sample of children and adolescents. *BMC Public Health* 7(347): doi: 10.1186/1471-2458-7-347.
- Liebert, R., & Morris, L. (1967). Cognitive and emotional components of test anxiety: A distinction and some initial data. *Psychological Reports*, 20, 975-978.
- MacCraty, R. 2007. When anxiety causes your brain to jam, use your heart. Institute of Heart Math.Heart Math Research Centre, Institute of Heart Math, Boulder Creek, CA.
- Mandler, G., & Sarason, S. B. (1952). A study of anxiety and learning. *Journal of Abnormal and Social Psychology*, 47, 166-173.
- Morris LW, Davis MA, Hutchings CH. Cognitive and emotional components of anxiety: Literature review and a revised worry-emotionality scale. *J Educ Psychol*. 1981;73:541-55.
- Naveh-Benjamin. M & McKeachie,W, J & Lin, Y. (1987). Two types of test anxious students:Support for an Information-processing model. *Journal O Educational Psychology*, 79, 131-136.
- Ohata, K. (2005). Potential Sources of Anxiety for Japanese Learners of English: Preliminary Case Interviews withFive Japanese College Students in the U.S., *TESL-EJ*, Volume 9, Number 3, 1 – 21.
- Onyeizugbo, U.E. 2010. Self-efficacy and test anxiety as correlates of academic performance.*Educational research* 1(10): 477- 480.
- Parvez, M. and Shakir, M. 2014. Academic achievement of senior secondary students in relation to academic anxiety. *ResearchJournali's, journal of education* 2(3): 1-13.
- Pleg, O. 2009. Test anxiety, academic achievement, and self-esteem among Arab adolescents with and without disabilities. *Learning disability quarterly*, Sage Publication, Inc. 32(1): 11-20.
- Rachman, S. (2004). *Anxiety* (2nd ed). New York: Psychology Press Ltd.
- Rana, R.A., Mahmood, N. 2010. The relationship between test anxiety and academic achievement. *Bulletin of Education and Research* 32(1): 11-20.

- Rezazadeh, M. and Mahmood, N. 2009. Investigating the relationship between test anxiety, gender, academic achievement and years of study: a case of Iranian EFL university students, *English Language Teaching* 2(4): 68-74.
- Robert, Steven, O., Vukovic and Rosek 2011. The relation between parental involvement and math anxiety: Implications for mathematics achievement. Society for research on educational effectiveness.
- Sarason, S. B., & Mandler, G. (1952). Some correlates of test anxiety. *Journal of Consulting and Clinical Psychology*, 47, 810-817.
- Sarason, I. G. (1984), Stress, anxiety, and cognitive interference: Reactions to Tests. *Journal of Personality and Social Psychology*, 46, 929-938.
- Sarason, I. G., Sarason, B. R. & Pierce, G. R. (1990). Anxiety, cognitive interference, and performance. *Journal of Social Behaviour and Personality*. 5, 1-18.
- Sena, Whitaker, Lowe, Patricia, Lu and Steven 2007. Significant predictors of test anxiety among students with and without learning disabilities. *Journal of learning disabilities* 40(4): 360-376.
- Sieber JE. Defining test anxiety: problems and approaches. In: Sarason IG, ed. *Test Anxiety: Theory, Research and Applications*. Hillsdale, NJ: Lawrence Erlbaum and Associates; 1980:15-40.
- Singh, A.K. and Gupta, A.S. 2009. Manual of academic anxiety scale for children (AASC). National Psychological Corporation, Agra (U.P.) India.
- Spielberger, C. D., & Vagg, P. R. (1995). *Test Anxiety: Theory, assessment, and treatment*. Washington D. C.: Taylor & Francis.
- Sridevi, K.V. 2013. A study of relationship among general anxiety test and academic achievement of higher secondary school students. *Journal of Education and Practice* 4(1): 122- 130.
- Young, D.J. (1991). Creating a low-anxiety classroom environment: what does the language anxiety research suggest? *Modern Language Journal*, 75/4, 426-437.
- Young, D. J. (1999). *Affect in foreign language and second language learning*. Boston, MA: McGraw-Hill.

- Zeidner, M. (1998). *Test Anxiety: The State of the Art*. New York: Plenum Press Ali, M.S., Awan, A.S., Batool, S. and Mahmood, N. 2013. Secondary school students' test anxiety and achievement in English. *International Journal of English and Literature (IJEL)* 3(1): pp. 131-138.