STUDY OF ACADEMIC ANXIETY AND ACADEMIC ACHIEVEMENT ACROSS CERTAIN DEMOGRAPHIC FACTORS

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Abstract

This study was conducted to examine academic anxiety as predictors of academic achievement of secondary school students. The sample of 300 10th class students (150 boys: 75 rural & 75 urban; 150 girls: 75 rural & 75 urban) was randomly selected from government and private schools of Sambhal district. Tools for collecting the data included Academic Anxiety Scale for Children (AASC) by Dr. A.K. Singh and Dr. A. Sen Gupta (2009).The data were analyzed using descriptive analyses (Mean, Standard Deviations), correlational analyses (Coefficient of Correlation 'r') and differential analyses ('t'- test). The findings of the present study revealed that academic anxiety is significantly and inversely related to academic achievement of secondary school students. It is also found that there is a significance difference between boys & girls and government & private secondary school students on the variable academic anxiety. However non-significant results are observed in case of (i) rural and urban secondary school students on the measure of academic anxiety and academic achievement and (ii) government and private secondary school students in respect of their academic achievement. The findings of the study may help in designing programs and strategies to manage the academic anxiety efficiently which may result into enhanced academic performance.

Keywords: Academic Anxiety, Academic Achievement, Locale, Types of School

INTRODUCTION

The 21st century is characterized by its shifting technological landscape, changing dimensions and priorities of education. The world is becoming more and more complex and competitive. The cut throat competitions put students in the state of do or die conditions which adversely affect their mental health. Quality of performance has become the only indicator of success. The desire for high level of achievement put a lot of pressure on students. Students are living in an increasingly anxiety ridden atmosphere where nothing seems to be guaranteed and at the same time they are expected to perform at every front, the main being the academics. Being academically successful and making a place in the society

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is their priority. When they cannot rise up to the expectations or are in the process of meeting it, they suffer from frustration, stress and anxiety. Students with anxiety disorder exhibit a passive attitude in their studies such as lack of interest in learning, poor performance in exams, and do poorly on assignments. Students often lack in academic motivation and performance, as their attention is divided among a lot many things especially at creating an identity for themselves. They encounter a number of stressors to excel in every walk of life. Williamson, Birmaher, Ryan, and Dahl (2005) reported that stressful life events could lead to low performance in academics. It has been found that students' performance in school is influenced by stress (Dusselier, Dunn, Wang, Shelly, & Whalen, 2005), and anxiety (Anson, Bernstein, & Hobfoll, 1984) which could lead to difficulties in concentration and lack of motivation and interest. These conditions will influence students' academic achievement. Md Aris Safree Md Yasin and Mariam Adawiah Dzulkifli (2010) observed that depression, anxiety, and stress negatively correlate with academic achievement.

Anxiety is an inseparable component of human existence. Anxiety is a subjective feeling of tension, apprehension, nervousness, and worry associated with arousal of the nervous system (Spielberger, 1983); emotional and behaviour disorders (Rachel and Chidsey, 2005). Putnam (2010) defined anxiety as "a complex psychological condition that affects various cognitive, behavioral, and psychological states". Anxiety can then be separated into three classifications: state, an emotional condition that is temporary and initiated by a certain experience, trait, a stable aspect of one's personality (Tohill & Holyoak, 2000), and situation-specific. Academic anxiety is therefore a situation-specific form of anxiety related to the educational contexts. Academic anxiety encompasses not only test anxiety, but also anxiety about certain education subjects in general. For instance, anxiety has been observed in students taking math, reading, science, and foreign language classes (Cassady, 2010). Academic anxiety becomes a problem only when the level grows to such an extent that a student is no longer able to function in efficient manner. If academic anxiety is not properly addressed, it can have severe and lasting consequences such as poor performance, absenteeism and drop-out from school. Academic anxiety leads to academic difficulties through irrelevant thoughts, preoccupation and reduce attention and concentration (Eysenck, 2009). Lee & Larson, (2000), indicates that "Academic Anxiety is conceptualized as a state of distress induced by a student's appraisal of excessive academic demands (i.e. overloaded

homework, examinations). Hancock (2001) concludes that "students with high level of Academic Anxiety show significantly less motivation in classrooms perceived as highly evaluative compared to students with low level anxiety" (p.284). A high level of anxiety also interferes with concentration and memory, which are critical for academic success. Given the adverse consequences of academic anxiety, it is important to delineate factors that may help students when they experience the stress involved in taking tests.

CONCEPTUAL FRAMEWORK

1. Academic Anxiety: Concept and Definitions

Anxiety is a state of mind in response to some stimulus in the environment which brings in the feelings of apprehension or fear. It is a kind of state anxiety which relates to the impending danger from the environment of the academic institutions including teaching certain subjects like mathematics, science, English etc. Academic anxiety afflicts students during school-related situations. Academic anxiety is, to a certain extent, unavoidable, necessary, and even productive, since it motivates to spend time for academic tasks. Although anxiety is a normal, even healthy part of our lives, it can be counterproductive when not managed well. Academic anxiety is considered to be, "disruptive thought patterns and physiological responses and behaviors that follow form concern about the possibility of an unacceptably poor performance on an academic task" Otten's (1991).This definition states that academic anxiety can include any apprehension or discomfort that a student may feel about the overall picture of academic evaluation. According to Cornell University, "Academic anxiety is the result of biochemical processes in the body and the brain that make your attention level increase when they occur. The changes happen in response to exposure to a stressful academic situation, such as completing school assignments, presenting a project in class or taking a test. When the anxiety becomes too great, the body recoils as if threatened, which is a normal fight-or-flight reaction".

2. Academic Achievement: Concept and Definition

Academic achievement is an index of children success affected both by the individual's ability to adjust to his environment and partly by his intelligence, aptitude and partly by the intensity of drives and motives which serve as the impelling force for his activities. Academic achievement, according to Good (1955), is defined as "knowledge attained or skills developed in the school subjects, usually designed by test scores or by marks assigned

by teachers, or by both". Trow (1956) defined academic achievement as "knowledge attaining ability or degree of competence in school tasks usually measured by standardized tests and expressed in a grade or units based on pupils' performance". Thus, academic achievement refers to the degree of level of success and that of proficiency attained in some specific area concerning scholastic and academic work. In the present study academic achievement is the aggregate marks obtained by the secondary school students in their annual examination.

REVIEW OF RELATED LITERATURE

Afolayan et al. (2013) reported academic anxiety to be negatively related with student's performance and outcome in the examination. Jain (2012) found negligible negative correlation between academic anxiety and academic achievement and no significant difference was found between academic anxiety and academic achievement of boys and girls. Vitasaria et al. (2010) in his study "The Relationship between Study Anxiety and Academic Performance among Engineering Students" concluded that there is a significant relationship between high level anxiety and low academic performance among engineering students. Yousefi et al. (2010) studied the relationship between test- anxiety and academic achievement among adolescents in Iran. Results showed that there was a significant correlation between test anxiety and academic achievement. Kumar & Karimi (2010) has reported that students having higher level of anxiety have low academic achievement. Rezazadeh & Tavakoli (2009) reported significant negative correlation between test anxiety and academic achievement. Banga and Sharma (2016) studied academic anxiety of secondary school students of Kangra district in relation to gender, locale and social category. They noted that (i) secondary school boys has more academic anxiety in comparison to secondary school girls and (ii) rural and urban secondary school students has non-significant difference in the academic anxiety. Mahajan (2015) found (i) non- significant difference between academic anxiety of male and female secondary school students and (ii) significant difference between academic anxiety of govt. and private secondary school teachers**.** Sunita (2014) studied academic anxiety and aggression of secondary school students in relation to certain socio-demographic variables. The researcher adopted multi stage sampling technique. Findings of the study reveal that the level of academic anxiety in girls is higher than the boys. Girls found to be more academically anxious and had better academic achievement than boys (Attri & Neelam, 2013). Neelam (2013) conducted a comparative study on academic anxiety

among private and govt. schools of Faridabad district and their gender differences. The study revealed that equal amount of academic anxiety can be seen among boys and girls and also among private and govt. schools. Mattoo and Nabi (2012) found that there was no significant difference in the academic anxiety scores between male and female respondents. Mahajan (2015) in a study, "Academic Anxiety of Secondary School Students in Relation to their Parental Encouragement" noted that private school students are more anxious than the govt. school students in relation to their academic activities. Mahato & Jangir (2012) studied the academic anxiety among adolescents. The study found that gender has no any impact on the anxiety scores. It was revealed that the type of school and the environment had a significant relation with the academic anxiety.

OBJECTIVES

1. To study the relationship between academic anxiety and academic achievement of secondary school students.

2. To compare secondary school students across gender (boys and girls), locale (rural and urban) and types of school (government and private) on the measure of academic anxiety and academic achievement.

HYPOTHESES

Based on the review of literatures and aforementioned objectives the present study formulated the following hypotheses:

H_1: There is no significant relationship between academic anxiety and academic achievement of secondary school students.

H_2: There is no significant difference between boys and girls of secondary school students in respect of their academic anxiety.

H_3: There is no significant difference between boys and girls of secondary school students in respect of their academic achievement.

H_4: There is no significant difference between rural and urban secondary school students in respect of their academic anxiety.

H_5: There is no significant difference between rural and urban secondary school students in respect of their academic achievement.

H_6: There is no significant difference across types of school (government and private) of secondary school students in respect of their academic anxiety.

H₇: There is no significant difference across types of school (government and private) of secondary school students in respect of their academic achievement.

DELIMITATIONS OF THE STUDY

1. The study is delimited to secondary school students studying in 10th class of Sambhal district of U.P.
2. The study is delimited to schools affiliated to U.P. Board C.B.S.E. only.
3. The study is delimited to certain demographic variables viz., Gender (boys and girls), locale (rural and urban) and types of school (government and private) only.
4. The study is delimited to test anxiety as dependent variable.
5. The study is delimited to the following tool to gather the data:
   - Academic Anxiety Scale for Children (AASC) by Dr. A.K. Singh and Dr. A. Sen Gupta (2009).

METHODOLOGY

This study utilized survey techniques due to its descriptive nature. This section is comprised of sample, research tools and procedure of the data collection.

Sample

The present study was conducted on a representative sample of 300 10th class students (150 boys: 75 rural & 75 urban; 150 girls: 75 rural & 75 urban randomly selected from government and private schools of Sambhal district. The ages of the students ranged from 15 to 16 years.

Tool Used

The researcher used the following tool for collecting the data to study the research in hand.

1. Academic Anxiety Scale for Children (AASC) by Dr. A.K. Singh and Dr. A. Sen Gupta (2009).

Academic anxiety scale has been constructed and standardized by Dr.A.K.Singh and Dr.A. Sen Gupta (2009). It is a 20 items self administering and self-reporting five points scale requiring response for each item on a continuum ranging from strongly agree to strongly disagrees. Each item of the test is scored as either + 1 or 0. The maximum possible score of this test is 20. High score on the test indicates high academic anxiety and low score on the test indicates low academic anxiety. The reliability of the academic anxiety scale for children

test was reported as 0.433(Spilt-half) and 0.60 (Test-Retest). The scale is fairly internally consistent as well as valid as reported by authors.

2. Academic Achievement

Aggregate marks secured by students in the annual examination of class 10th were taken as the academic achievement of the students. These marks were collected from the office records of the concerned schools and used in the analyses of the data.

Procedure of Data Collection

The researcher collected the data personally with prior permission of the schools and concerned teachers. The administration of the tool viz., Academic Anxiety Scale for Children (AASC) by Dr. A.K. Singh and Dr. A. Sen Gupta (2009) was completed following the instructions given by the author of the tool.

ANALYSIS OF THE DATA

The collected data was analyzed using descriptive analyses (Mean, Standard Deviations), correlational analyses (Coefficient of Correlation 'r') and differential analyses ('t'- test). The hypotheses were tested at varying level of significance.

RESULTS AND DISCUSSION

1. Correlation of Academic Anxiety and Academic Achievement of the Secondary School Students

The correlation was calculated using Pearson's Product Moment Coefficient of Correlation between these variables. Results of the correlation coefficients between academic anxiety and academic achievement of the secondary school students are presented in Table No. 1

H_1: There is no significant relationship between academic anxiety and academic achievement of secondary school students.

Table No.1 Correlation Matrix of Academic Anxiety and Academic Achievement

Variables	Academic Anxiety	Academic Achievement
Academic Anxiety	*	**- 0.247** **(.01)**
Academic Achievement	**- 0.247** **(.01)**	*

Perusal of table-1 establishes that there is an inverse relationship between academic anxiety and academic achievement. This means that lesser academic anxiety will result into better academic achievement and vice-versa. The reason for the lesser academic anxiety resulting into better academic achievement may be due to learning of proper anxiety coping skills and other stress reducing strategies to overcome the stress and anxiety inducing situations. Similar result is also reported by Afolayan et al. (2013) and Vitasaria et al. (2010). Thus the null hypothesis H_1 is rejected and it is reframed as **there is significant relationship between academic anxiety and academic achievement of secondary school students**.

2. Comparison between gender (boys and girls) on the selected variables.

The comparison between the samples on the selected variables was done by testing the significance of difference between their means by using t-tests. The results are presented in the following tables.

H_2: There is no significant difference between boys and girls of secondary school students in respect of their academic anxiety.

H_3: There is no significant difference between boys and girls of secondary school students in respect of their academic achievement.

Table No.2 Comparison between gender (boys and girls) on the selected variables

Variables	Gender Boys (200) M_1	σ_1	Girls (200) M_2	σ_2	t - value
Academic Anxiety	8.31	2.43	10.19	2.53	7.27 (.01)
Academic Achievement	341.17	52.49	337.23	51.02	0.76 (N.S.)

Table-2 presents mean scores of boys and girls of secondary school students for academic anxiety and academic achievement. Means and S.Ds of boys and girls on the measure of academic anxiety are 8.31 & 2.43 and 10.19 & 2.53 respectively. When the t-test was applied to compare the mean scores of academic anxiety of both the groups, t-value is found to be 7.27 which is significant at .01 level of significance. This significant difference favouring girls suggests that girls are academically more anxious in comparison to boys. More anxiety

in girls might be due to their increasing dreams & aspirations and dependence on academic prestige & social recognition. All these make them more vulnerable to emotional pressures which are reflected in the forms of anxiety in academics. This result is in line with the results of Sunita (2014) and Attri & Neelam, 2013. Thus the null hypothesis H_2 is rejected and it is reframed as **there is significant difference between boys and girls of secondary school students in respect of their academic anxiety.** On the other hands, comparison of mean scores of boys and girls on the measure of academic achievement yields no significant result. Thus the hypothesis H_3 is accepted.

3. Comparison between locality (rural and urban) on the selected variables.

The comparison between the samples on the selected variables was done by testing the significance of difference between their means by using t-tests. The results are presented in the following tables.

H_4: There is no significant difference between rural and urban secondary school students in respect of their academic anxiety.

H_5: There is no significant difference between rural and urban secondary school students in respect of their academic achievement.

Table No.3 Comparison between locality (rural and urban) on the selected variables

Variables	Locale Rural (200)		Urban (200)		
	M_1	σ_1	M_2	σ_2	t - value
Academic Anxiety	10.11	2.35	10.42	2.21	1.37 (N.S.)
Academic Achievement	362.39	55.75	355.11	56.81	1.29 (N.S.)

Perusal of the table-3 reveals that there are non- significant differences between rural and urban students on the measures of academic anxiety and academic achievement. This result may be attributed to the demographic composition of the selected locality. Thus the null hypotheses H_4 and H_5 are accepted.

4. Comparison between types of school (government and Private) on the selected variables

The comparison between the samples on the selected variables was done by testing the significance of difference between their means by using t-tests. The results are presented in the following tables.

H_6: There is no significant difference across types of school (government and private) of secondary school students in respect of their academic anxiety.

H_7: There is no significant difference across types of school (government and private) of secondary school students in respect of their academic achievement.

Table No.4 Comparison between types of school (government and Private) on the selected variables

Variables	Types of School Government (200)		Private (200)		
	M_1	σ_1	M_2	σ_2	t - value
Academic Anxiety	9.31	2.07	10.71	2.23	6.60 (.01)
Academic Achievement	362.39	55.75	355.11	56.81	1.29 (N.S.)

Table-4 presents mean scores of government and private secondary school students for academic anxiety and academic achievement. Means and S.Ds of government and private secondary school students for academic anxiety are 9.31 & 2.07 and 10.71 & 2.23 respectively. When the t-test was applied to compare the mean scores of academic anxiety of both the groups, t-value is found to be 6.60 which is significant at .01 level of significance, suggesting that type of schools affect the anxiety levels of students. It is inferred that the private school students are more anxious than the government school students in relation to their academic activities. It may be due to the reason that the private school students feel more pressure from parents as well as from teachers to perform well which cause the increased level of academic anxiety among them. This result is in consonance with the results of Mahajan (2015) and Mahato & Jangir (2012). Thus the null hypothesis H_6 is rejected and it

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is reframed as **there is significant difference across types of school (government and private) of secondary school students in respect of their academic anxiety.** On the other hands, comparison of mean scores of government and private secondary school students for academic achievement yields no significant result. Thus the hypothesis H_7 is accepted.

Findings

1. There is significant relationship between academic anxiety and academic achievement of secondary school students.

2. There is significant difference between boys and girls of secondary school students in respect of their academic anxiety

3. There is no significant difference between boys and girls of secondary school students in respect of their academic achievement.

4. There is no significant difference between rural and urban secondary school students in respect of their academic anxiety.

5. There is no significant difference between rural and urban secondary school students in respect of their academic achievement.

6. There is significant difference across types of school (government and private) of secondary school students in respect of their academic anxiety.

7. There is no significant difference across types of school (government and private) of secondary school students in respect of their academic achievement.

CONCLUSION

The result of the study showed that there is an inverse relationship between academic anxiety and academic achievement among secondary school students. This implies that the students who have lesser academic anxiety perform better in academics and vice- versa. The results of the study also show that academic anxiety significantly differs in case of boys & girls and government & private secondary school students. However non-significant results are observed in case of (i) rural and urban secondary school students on the measure of academic anxiety and academic achievement and (ii) government and private secondary school students in respect of their academic achievement. By knowing and acknowledging the causes of anxiety, students will be better equipped to combat anxiety to enhance the academic achievement.

REFERENCES

Afolayan, J. A., Donald, B., Onasoga, O., Babafemi, A. and Juan, A. (2013), "Relationship between anxiety and academic performance of nursing students", Advances in Applied Science Research, Vol. 4, No.5, pp. 25-33.

Anson, A., Bernstein, J. and Hobfoll, S. E. (1984), "Anxiety and Performance in Two Ego Threatening Situations", Journal of Personality Assessment, Vol.48, No. 2, pp. 168-172.

Attri, A.K. and Kumari, N. (2013), "Academic Anxiety and Achievement of Secondary School Students," International Journal of Behavioral Social and Movement Sciences, Vol. 2, Issue 1, p. 27.

Banga, C.L. and Sharma, S.K. (2016), "A Study of Academic Anxiety of Secondary School Students of Kangra District in Relation to Gender, Locale and Social Category", International Multidisciplinary e –Journal, Vol. 5, No. 4, pp.46-55.

Cassady, J.C. (2010), "Anxiety in the schools: The Causes, Consequences and Solutions for Academic Anxieties. NY: Peter Lang.

Dusselier, L., Dunn, B., Wang, Y., Shelley, M. C. and Whalen, D. F. (2005), "Personal, Health, Academic, and Environmental Predictors of Stress for Residence Hall Students", Journal of American College Health, Vol.54, pp. 15-24.

Eysenck (2009), "The Effect of Anxiety on Academic Achievement of Students", Retrieved from http://www.sciencedaily.com/releases/2009/06/090623090713.htm

Fayegh, Y., Mansor, A. T., Mariani, B. M., Rumaya, B. J. and Ma□ rof, R. (2010), "The Relationship between Test-Anxiety and Academic Achievement among Iranian Adolescents", Asian Social Science, Vol. 6, No. 5, pp.100-105.

Hancock, D. R. (2001), "Effect of Test Anxiety and Evaluative Threats on Students' Achievement and Motivation", The Journal of Educational Research, Vol.94, No. 5, pp. 284-290.

Jain, A. (2012), "Effect of Academic Anxiety and Intelligence on the Academic Achievement of the Elementary Level", Asian journal of Multidimensional Research, Vol.1, No.4, pp. 90-95.

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, Vol. 36, No.1, pp. 147-150.

Lee, M. and Larson, R. W. (2000), "The Korean "Examination Hell": Long Hours of Studying, Distress, and Depression", Journal of Youth and Adolescence, Vol.29, pp.249- 272.

Mahajan, G. (2015), "Academic Anxiety of Secondary School Students in Relation to their Parental Encouragement", Research in Humanities and Social Sciences, Vol. 3, No. 4, pp. 23-29.

Mahato, B., and Jangir, S. (2012), "A Study on Academic Anxiety among Adolescents of Minicoy Island", International Journal of Science and Research (online), Vol.1, No.3, pp. 12-14

Mattoo, N. H. and Nabi. R. (2012), "A Study on Academic Anxiety among Adolescents (14 –16 years)", International Journal of Social Science Tomorrow Vol. 1 No. 3, pp. 1-3.

Md. Aris Safree Md Yassin & Mariam Adawiah Dzulkifli. (2010), "The Relationship between Social Support and Psychological Problems among Students", International Journal of Business and Social Sciences.

Neelam, C. G. (2013), "Comparative Study Of Academic Anxiety among Private And Govt. Schools Of District Faridabad and their Gender Differences", International Journal of Innovative Research and Studies, pp-81-88, Retrieved from http://www.ijirs.com/vol2_issue-6/8.pdf

Ottens, A. J. (1991), "Coping with Academic Anxiety", Rosen Publishing Group.

Putman, S. M. (2010), "The Debilitative Effects of Anxiety on Reading Affect. In J. C. Cassady (Ed.), Anxiety in schools: The causes, consequences, and solutions for academic anxieties", NY: Peter Lang. Retrieved from http://academicanxiety.org/?page_id=89

Rachel, B. and Chidsey. (2005), "Assessment for Intervention: A Problem Solving Approach", The Guilford Press.

Rezazadah, M., and Tavakoli, M. (2009), "Investigating the Relationship among Test Anxiety, Gender, Academic Achievement and Years of Study: A case of Iranian EFL University Students", English Language Teaching, Vol.2, No. 4, pp. 68-74.

Singh, A. K. and Gupta, A. S., (2009), "Manual for Academic Anxiety Scale for Children (AASC)", National Psychological Corporation, Agra.

Spielberger, C.D. (1983). Manual or the State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychologists Press.

Sunita, K. (2014), "Academic Anxiety and Aggression of Secondary School Students in Relation to Certain Socio-Demographic Variables", M.Ed. Dissertation, ICDEOL, HPU, Shamble.

Tohill, J. M. and Holyoak, K. J. (2000), "The Impact of Anxiety on Analogical Reasoning", Thinking and Reasoning, Vol.6, No.1, pp. 27-40.

Trow, W. C. (1956), "Psychology in Teaching and Learning", Boston: Houghton Mifflin Company.

Vitasaria,P., M. N. Abdul Wahabb , A. Othman , T. Herawand and S. K. Sinnaduraie (2010), "The Relationship between Study Anxiety and Academic Performance among Engineering Students", Procedia Social and Behavioral Sciences, Vol. 8, pp. 490–497

Williamson, D. E., Birmaher, B., Ryan, N. D. and Dahl, R. E. (2005), "Stressful Life Events in Anxious and Depressed Children", Journal of Child and Adolescent Psychopharmacology, Vol. 15, No. 4, pp. 571-580.