

Relation between Academic Anxiety and Academic Achievement among school students of Murshidabad District

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ABSTRACT

Excessive academic anxiety may impair attention span, concentration and memory which can result in having a negative effect on the academic achievement of the individual. Pupils even may withdraw or avoid from socializing with peers or pursuing activities that interest him. The present study was conducted to examine the correlation between academic anxiety of school students and their academic achievement that were occurring among students of Murshidabad district, India. "Academic Anxiety Scale for Children" (AASC Scale) constructed by Dr. A.K. Singh and Dr. A. Sen. Gupta (2009) was used for collecting data from a random sample of 200 secondary and senior secondary school students. Marks obtained in last annual examination by the students were collected from the selected schools for calculating the academic achievement. Statistical techniques such as Mean, Standard Deviation, skewness, kurtosis, coefficient of correlation (scatter diagram) and regression- prediction technique were applied for analysis of data. The results revealed that anxious students did not perform well in school. Moreover, the Academic Achievement of the students decreased in case of the high and low anxious students but the moderately anxious students did better in Academic Achievement. An average level of anxiety is useful in keeping pupil motivated in learning.

Keyword:- Anxiety, Academic anxiety, Academic achievement, Murshidabad district, AASC Scale

1. INTRODUCTION:

Anxiety means a kind of displeasing feeling of uneasiness, nervousness, apprehension, concern or worry characterized by fear, dread, or uncertainty about something the source of which is largely unknown or unrecognized by the individual (Good, 1973; Barlow, 2002). In today's cut throat competitive environment, anxiety is a common phenomenon of everyday life. There are several factors that produce stress, such as- environmental factors (Stress in relationships, abuse/ victimization at work /school, death of a loved one, financial stress etc.), medical factors (side effects of medication, Lack of oxygen from emphysema, pulmonary embolism etc), intoxication/ withdrawal from an illicit drug (heroin/cocaine), genetic predisposition, neurological problems, prescription of some drugs (Vicodin, benzodiazepines, or barbiturates) and many more. Various common symptoms of anxiety are increase or decrease of blood pressure level (Kazdin 2000), sweating trembling, increased rate of heartbeat, adrenalin rush etc. Developing a state of anxiety in academic field may impair attention span, concentration and memory which can result in having a negative effect on the academic performance of the individual due to formation of false anticipation of threatened self-esteem. If academic anxiety isn't properly addressed, it can have many serious and lasting consequences, such as causing a student to procrastinate, perform poorly on schoolwork, fail classes and withdraw from socializing with peers or pursuing activities that interest him. But an moderate level of anxiety is useful in keeping pupil motivated in learning and also helpful for those future citizens in having a more sustainable and prosperous life. Thus it could be concluded that to enhance the academic achievement of students, it is sheer duty of parents and educators to regulate academic anxiety in a certain extent. In this connection the present study was to examine the relationship between academic anxiety and academic achievement among school students of Murshidabad District.

Regarding this, various literatures and review papers were studied by the investigator. Anxiety can be considered as major predictor so far as academic success is concerned (Prima et al 2010, Muhammad et al 2012). Researches found that a negative and significant relationship exists between anxiety and academic achievements (Gaudry and Spielberger 1971, Anson et al. 1984, Cassidy Johnson 2002, Hamzah 2007, Luigi et al. 2007, McCraty 2007, Sena et al. 2007, Jing 2007, Singh and Thukral 2009, Rezazadeh & Tavakoli 2009, Peleg 2009, Rana & Mahmood 2010, Vitasari et al. 2010, Dordi Nejad et al. 2011, Nadeem et al. 2012, Udeani 2012, Ali et al. 2013, Ali

and Mohsin 2013). In addition to that, students with high anxiety level not only performed poorly but also were less motivated to learn something (Hancock, 2001). Further analytical studies revealed that subjects who were familiar with the academic tests were less exposed to anxiety as compared with the ones those were less familiar (Farhan et al 2011). Whereas on completely different note, Jain (2012) and Sridevi (2013) opposed that academic anxiety was negligibly negatively correlated with academic achievement and Cheraghian (2008) found no meaningful relationship between academic anxiety and academic performance. Cassie (2012) discussed some strategies those could be a help to handle the negative impact of anxiety over academic achievements.

The research objective of this present study was to find out the significant effect of academic anxiety over academic achievement of school students as well as to find out significant relationship, if any, between different levels of academic anxiety (high, moderate and low) of school students and their academic achievement.

The investigator had drawn samples randomly from a definite examining body system which has never been explored before by any previous worker from this perspective, *i.e.*, Murshidabad district of the state West Bengal, India.

2. RESEARCH METHOD

As per research objectives stated above, the following null hypotheses had been formulated:

H_{01} There does not exist any significant relationship between academic anxiety and academic achievement of school students.

Present study was to assess the correlation between academic anxiety and academic achievement as per the different levels of anxiety viz., high, moderate and low level of anxiety. Hence, academic anxiety of school students worked as independent variables and academic achievement of them was dependent variable. This was a descriptive research. Among all the techniques of descriptive research method, normative survey was applied here to collect the sample from government aided schools (of both types- rural and urban) of Murshidabad District of West Bengal, India. The sample comprised of 200 students of class VII only, which was selected using simple random sampling procedure. Ex-post facto research design was followed. "Academic Anxiety Scale for Children" (AASC Scale) by Dr. A.K. Singh and Dr. A. Sen. Gupta (2009) was used to study the academic anxiety in relation to certain variables. According to the manual, reliability value of the tool was $r = 0.60$ (test-retest method) and $r = 0.65$ (split half method); it had been validated against the Sinha Anxiety Scale, Neuroticism scale of MPI and CAAT ($r = 0.31, 0.41, 0.57$ respectively). The tool consisted of 20 questions on different academic perspective which caused anxiety like educational pressure, examination phobia, institutional discipline, parent- teacher association, homework etc. The test was administered on the respondent/ students as per the prescribed norms and conditions in calm and quite atmosphere. To ensure proper administration of the tool, some precautions, like well ventilation, good sitting arrangement, undisturbed classroom situation etc were taken by the investigator. At first, the students were instructed with necessary information and the investigator puzzled out their doubts. The participants had to indicate whether they agreed to the statement given or not. The answer scripts, duly filled by the respondents (students), were collected all at a time. Then they were scored as per the scale manual. A data sheet was prepared from the array of the scores. . The researcher had collected the marks obtained in last annual examination from the selected schools for calculating the academic achievement of the students. As per the objectives and hypotheses stated, the scores of the students in relation to the variables were analyzed.

The delimitations of the study were many due to time constraints and paucity of funds, such as-small sample number, restricted area of application and limited components of the tool.

3. RESULT AND DISCUSSION

The main objective of the present investigation was to determine the relative contribution of the predicting variable (academic achievement) on the criterion variable (academic anxiety). Keeping the above purpose in view, the quantitative aspect is discussed below.

The descriptive analysis of the score obtained from the administered anxiety questionnaire depicted that Mean= 11.34, Median=11.20, Mode=10.92, Standard Deviation= 3.2, Skewness= 0.30 and Kurtosis=0.27, where $n=200$. The facial expression of the data denotes that the distribution curve seems to be not normal but approaching to its normal form, positively skewed and Platykurtic in nature. This may be due to sampling error caused from various delimitation of the study. A Frequency Polygon was plotted from the obtained data.



The effect of Academic Anxiety on Academic Achievement was determined by finding out the coefficient of correlation between the test scores and in the last annual examination. The calculation drawn from the last annual examination signifies the academic achievement of the sample group (viz., Mean= 391.92, Median= 379.80, Standard Deviation=85.05). The marks of annual examination obtained from the respective schools were tabulated first with test score and then scatter diagram between test Scores and aggregate in last annual Examination was calculated. The validity coefficient of Academic Anxiety test with Aggregate marks was found to be **-0.17** which was found to be negatively correlated.

Then for a detail study, the test score were differentiated into three level viz. Low, Moderate and High level. The researcher aimed to find out the effect of the respective level of Anxiety on academic achievement of students. Marks obtained from both, test score and as well as Aggregate marks of the respective level (Low, moderate and high level) were calculated by scattered diagram to find out the co-efficient of the correlation between anxiety level and academic achievement. The coefficient of correlation between test score and aggregate marks of the students having low anxiety was ($r' = -0.12$) which is found to be negatively correlated with academic achievement. Students with high level anxiety also exhibited negative correlation ($r' = -0.14$). Whereas, the result in case of students having moderate level of anxiety showed a positive correlation $r' = 0.07$.

The regression equation of the Academic Anxiety Test score (X) of the students to the Aggregate marks of the students in last annual examination (\bar{Y}) was found to be:

$$\bar{Y} = 443.18 - 4.52X \text{ and } \sigma_{(est.)} \bar{Y} = 83.86 \text{ (error in prediction)}$$

This regression line let the researcher predict how the students would perform in future examination as per their different anxiety level (High, moderate and low) by putting the value of X in the aforesaid equation.

Hypothesis testing

H_{01} There does not exist any significant relationship between academic anxiety and academic achievement of school students.

Interpretation:

The value of the co-efficient of correlation between the scores in Academic Anxiety Test and Aggregate marks of the total students in the last annual school examination was found to be -0.17 which was negatively correlated which made the researcher drawing a conclusion that anxious students do not perform well in school. Hence, hypothesis H_{01} was rejected. The coefficient of correlation between test score and aggregate marks of the students having high, moderate and low anxiety was -0.14 , 0.07 and -0.12 respectively. Hence, it might be concluded that the Academic Achievement of the students decreased in case of the high and low anxious students but the moderately anxious students did better in Academic Achievement.

4. CONCLUSIONS

Gaudry and Spielberger (1971), Anson *et al.* (1984), Cassady Johnson (2002), Hamzah (2007), Luigi *et al.* (2007), McCraty (2007), Sena *et al.* (2007), Jing (2007), Singh and Thukral (2009), Rezazadeh & Tavakoli (2009), Peleg (2009), Rana & Mahmood (2010), Vitasari *et al.* (2010), Dordi Nejad *et al.* (2011), Nadeem *et al.* (2012), Udeani (2012), Ali *et al.* (2013), Ali and Mohsin (2013) found that there exists negative and significant relationship between anxiety and academic achievement. As the hypothesis H_{01} was rejected, or it could be said that the result indicated

anxious students do not perform well in school. Thus the result obtained was in accordance with the previous study. But the studies done by Cheraghian (2008), Farhan et al (2011), Jain (2012) and Sridevi (2013) went against this inference. Hancock (2001) found in his study that students with high anxiety level performed poorly. The result of the present study is similar with this finding. In addition to this, the researcher also found that instead of high and low anxiety, moderately anxious students would do better in Academic Achievement.

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