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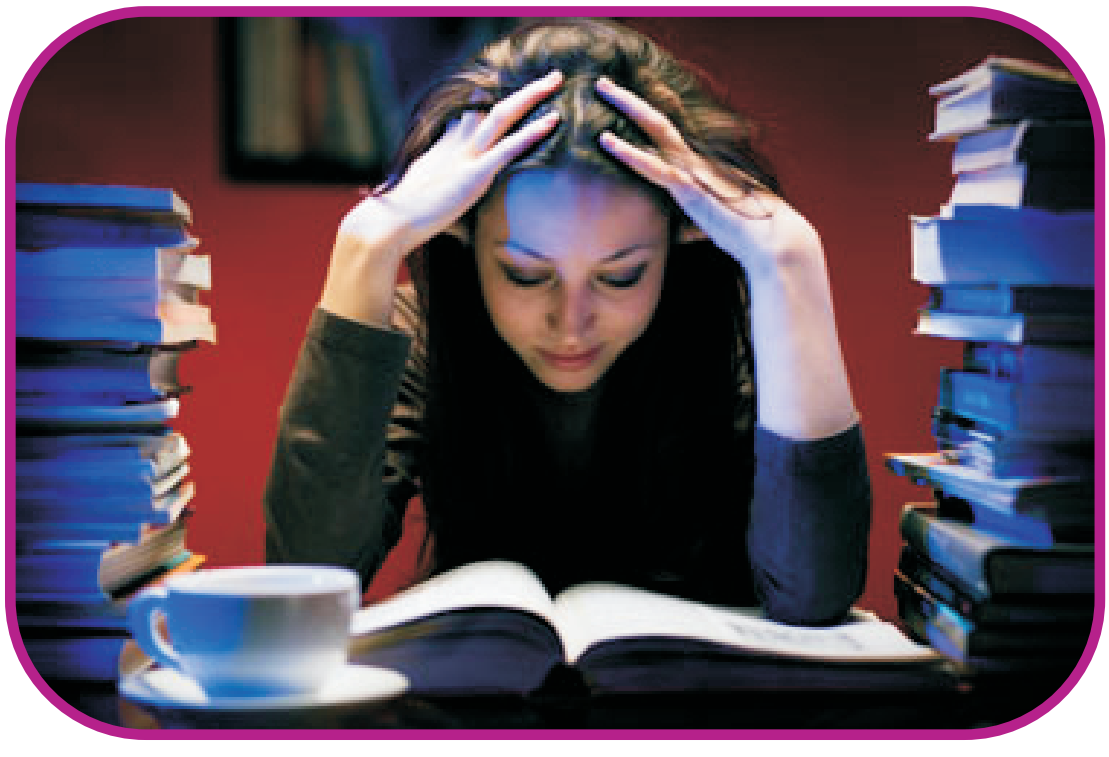
Review Of Research

A STUDY OF INFLUENCE OF ANXIETY ON ACADEMIC PERFORMANCE OF CLASS X STUDENTS

Abstract:-

Anxiety is a Psychological tempo in the present day to day life and every one faces anxiety in their lifestyles. It is a wide area of research in social sciences. The present paper aims to study the influence of anxiety on academic performance of class X students. Objectives of the study are framed based on the selected variables and hypotheses are formulated. Anxiety is shown to have no significant influence on Gender. The type of management of the school is a variable that has significant effect on the anxiety and academic performance of the students. Privately managed school students have significantly low anxiety than the students studying in Government schools. An important finding is that the economic status of the family has a vital influence on anxiety and academic performance. The results clearly indicate that the poor family economic status students have higher anxiety level and students belongs to rich economic status have low anxiety level. The anxiety and academic performance are found to be inversely related.



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Keywords:

Anxiety, Academic performance, Gender, Economic status, Type of Management and Deja-vu.

INTRODUCTION

Anxiety is distinguished from fear, which is an appropriate cognitive and emotional response to a perceived threat and is related to the specific behaviours of fight or flight responses, defensive behaviour or escape. Anxiety occurs in situations only perceived as uncontrollable or unavoidable, but not realistically. Anxiety has come to be one of psychology's umbrella constructions. It covers so wide an area of research and speculation, that no precise specifications of the usages are possible. It is a persisting, distressful psychological state arising from an inner conflict. It is a stirred up generalized emotional state or a state of jitters, rather than the specific one like fear or worry aimed at a particular person, object or event. Symptoms of anxiety can range in number, intensity, and frequency, depending on the person. While almost everyone has experienced anxiety at some point in their lives, most do not develop long-term problems with anxiety.

The behavioural effects of anxiety may include withdrawal from situations which have provoked anxiety in the past. Anxiety can also be experienced in ways which include changes in sleeping patterns, nervous habits, and increased motor tension like foot tapping. The emotional effects of anxiety may include feelings of apprehension or dread, trouble concentrating, feeling tense or jumpy, anticipating the worst, irritability, restlessness, watching (and waiting) for signs (and occurrences) of danger, feeling like mind has gone blank as well as nightmares/bad dreams, obsessions about sensations, Deja-vu, a trapped in mind feeling, and feeling like everything is scary. The cognitive effects of anxiety may include thoughts about suspected dangers, such as fear of dying. One feels an intense fear when he thinks of dying, or one may think of it more often than normal, or can't get it out of one's mind.

Many students face anxiety to take examinations. In spite of elaborate preparation, they face anxiety. We find that a sizable number of students, brilliant or dull, develop fear complex as examinations approach. The anxiety test can be successfully used for screening out students who suffer from high degree of anxiety which has a disruptive, inhibiting or interfering influence on the performance in examinations.

A number of research studies were carried out in the past on this topic. The study habits and amount of study time were positively related to academic performance, whereas missing classes and delayed examinations were inversely related to performance (Culler & Holahan, 1980). The more cognitively determined and the more specific the anxiety measure, the closer was its association with academic performance. It is noted by Seipp (1991) that a closer relationship exists between the anxiety measured after the performance situation and anxiety measured before. Endler et al. (1994) conducted a study on state-trait anxiety and academic performance and found that state anxiety is predicted by Social Evaluation trait anxiety. Cognitive test anxiety exerts a significant stable and negative impact on academic performance (Cassady & Johnson, 2002). Female graduate and undergraduate students had significantly higher test anxiety and higher grade point averages than male counterparts as studied by Chapell et al. (2005). Owens et al. (2008) found that the association between trait anxiety and academic performance was significantly mediated by verbal working memory for three of the six academic performance measures. The consequences of these plans differed significantly for those high in test anxiety. Implications for effective self-regulation by test-anxious students are discussed by Parks-Stamm et al. (2010).

Adjustment problems of Junior College students (Class XII) were studied by Reddy (2011). Owens et al. (2012) observed that higher levels of anxiety and depression were associated with lower academic performance. Akinsola & Nwajei (2013) observed that the test anxiety, trait anxiety, and depression co-exist and are positively related, and they are negatively related to academic performance. Adolescence problems of intermediate (Class XII) students and their guidance needs were discussed by Reddy & Subbaiah (2014). Zhang & Handerson (2014) reported that the Mean total anxiety and emotionality scores for females were significantly higher than those for males. Mishra & Chincholikar (2014) found that the anxiety has a negative relationship to the academic performance.

The present paper aims to explore relationship between anxiety and academic performance of high school students and the impact of associated factors such as Type of School Management and Economic status of the students.

METHODOLOGY

It is proposed to study how the variables, namely Type of Management of School and Economic status of the student, influence the Anxiety of students and their Academic performance. Further the impact of Anxiety on Academic performance is proposed to be explored, confining attention to Class X students only.

SAMPLE

For this study, a sample of 200 students of Class X of both genders studying in high schools is selected by a simple random sampling procedure from 4 different types of management of schools in and around the Ananthapuramu district of Andhra Pradesh, India.

SAMPLE DESIGN FOR THE STUDY

Gender	Type of Management of School				Total
	Govt.	Zilla Parishad	Private	A.P. Residential	
Boys	50	37	-	30	117
Girls	-	13	50	20	83
Total	50	50	50	50	200

TYPES OF MANAGEMENT OF SCHOOL

The students were drawn and categorized into four groups of different Managements, namely, (1) Government High School (2) Zilla Parishad High School (3) Private High School and (4) A.P. Residential High School. Note that except (3) all others are government managed either at state level or at a regional (local) district level.

TOOL

Self Analysis form of The Sinha Anxiety Scale, established by Sinha (1968), is suitable for Indian conditions and is used in the present study.

COLLECTION OF DATA

The Anxiety scale is administered under normal classroom conditions. Some general instructions were given to the students explaining the nature of the work and the purpose for which it was being done. To make the subjects interested in the work, it was emphasized that this work was undertaken for research purpose. An explanation of the importance of carefulness and correctness of the study was given to the students to impress on them to be sincere in their responses.

OPERATIONAL DEFINITIONS

Anxiety: Anxiety is an emotional condition in which there is fear and uncertainty about the future.

Academic performance: It is a combination of ability and effort. Presumably, ability being equal, those with higher motivation exerts more effort and will, and achieves higher grades.

Gender: It is the range of characteristics pertaining to, and differentiating between, masculinity and femininity.

Type of Management of the School is defined operationally by the nature of Management (State Government managed school, Autonomous Local Body managed school – Zilla Parishad, Private Body managed school, Residential school managed by the Government).

Economic Status is defined by the conditions of living as defined by the Income of the family per month.

Deja-vu: The illusion of remembering scenes and events when experienced for the first time.

Analysis of the data

The collected data is analyzed using standard statistical techniques like t-test and ANOVA.

OBJECTIVES OF THE STUDY

1.To find out the different levels of Anxiety among boys and girls of the Class X students.
2.To find out the relationship between Anxiety and Academic performance of Class X students.
3.To find out the influence of Type of Management and Type of Economic status of the family on Anxiety of Class X students.
4.To find out the influence of Type of Management and Type of Economic status of the family on Academic performance of Class X students.
5.To find out whether the level of Anxiety of students significantly influences their Academic performance.

HYPOTHESES OF THE STUDY

1.There is no significant difference between boys and girls towards the levels of Anxiety among Class X students.
2.There is no significant difference between the Type of Management and Academic Performance of Class X students.
3.There is no significant difference between the Type of Management and Anxiety of Class X students.
4.There is no significant difference between the Economic status of the students and the Anxiety of Class X students.
5.There is no significant difference between the Economic status of the students and the Academic performance of Class X students.

6.There is no significance difference between the levels of Anxiety and Academic performance.

RESULTS AND DISCUSSION

The present paper is devoted to study whether there is any relationship between various factors mentioned above. The null hypothesis is tested and the results are presented in tables concerned. The validity of each Hypothesis is examined statistically below, taking one by one.

Hypothesis-1: There is no significant difference between boys and girls towards the levels of Anxiety among Class X students.

To test the hypothesis, the students are classified into low Anxiety group (up to 35), moderate Anxiety group (between 36 to 45) and high Anxiety group (46 and above). The data is collected on the Anxiety levels of boys and girls and the results are presented in Table-1.

Table -1: Means, S.D. and t-value of anxiety scores of Boys and Girls

Gender	N	Mean	S.D.	t-value
Boys	117	59.46	11.33	0.16@
Girls	83	59.19	12.14	

@ Not Significant at 0.05 levels

It can be seen that mean Anxiety scores of boys (59.46) is slightly greater than the mean scores of the counterparts i.e., girls (59.19). But, the calculated t-value 0.16 is less than the table value and is not significant at 0.05 level of probability for 199 degrees of freedom (df). Hence the null hypothesis is accepted. Therefore, there is no significant difference in the level Anxiety of boys and girls.

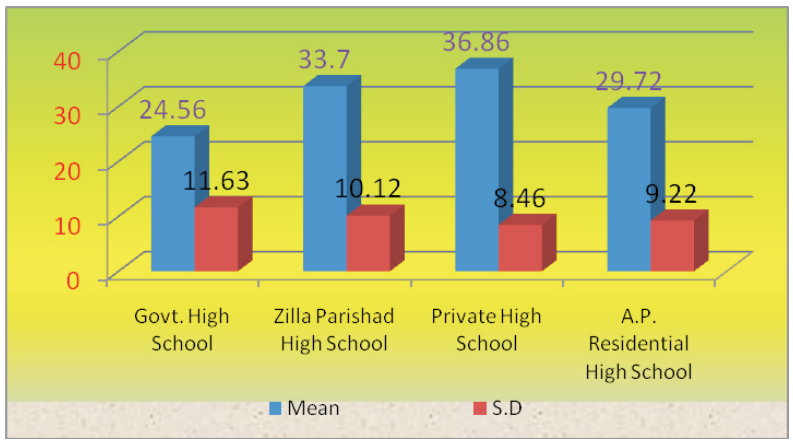
Hypothesis-2: There is no significant difference between the Type of Management and Academic performance of Class X students.

Table-2 shows that the mean scores of the Academic performance of the subjects studying in Government high school is 24.56, while that of those studying in Zilla Parishad high school is 33.70, that of those studying in Private school is 36.86 and that of those studying in A.P. Residential School is 29.72. The Mean and S.D. scores of Academic performance of students studying under different Managements are pictorially shown in Graph-1.

Table – 2: Mean and S.D. scores of Academic performance of students studying under different Management Schools.

S.No.	Type of Management	N	Mean	S.D.
1	Government High School (Govt.)	50	24.56	11.63
2	Zilla Parishad High School (Z.P.H.S.)	50	33.70	10.12
3	Private High School (P.H.)	50	36.86	8.46
4	A.P. Residential High School (A.P.R.)	50	29.72	9.22

Graph – 1: Mean and S.D. of Academic performance of students studying under different Management Schools



It can be seen that the students studying in Private management schools have high Academic

performance scores than the remaining students in other managements like Government, Zilla Parishad and A.P. Residential Schools. A further analysis on Academic performance of the students is carried out by one way ANOVA, to find out whether there is any significant difference between the Type of Management and Academic performance.

Table - 3: ANOVA of students studying in different Management schools

S. No.	Source of variation	Sum of squares	df	Mean of Sum of squares	'F' Ratio
1.	Between groups	42282.66	3	14094.22	14.31**
2.	Within groups	193109.20	196	985.25	
	Total	235391.86	199		

** Significant at 0.01 level

In Table-3, the obtained 'F' ratio (14.31) is significant at 0.01 levels. It indicates that Type of Management has significant effect on their Academic performance. To examine which of the four groups differed significantly from the others, t-test is applied.

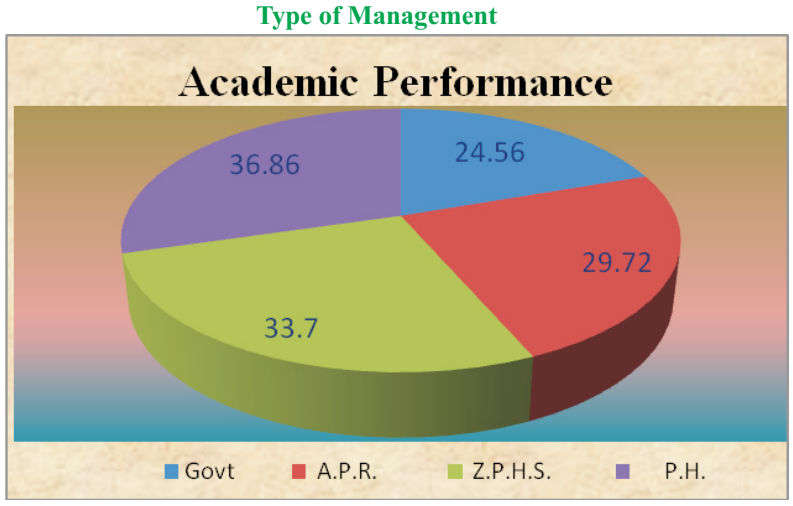
Table – 4: Mean Academic performance of students classified according to Management using results of t-test.

Management	Govt.	A.P.R.	Z.P.H.S.	P.H.
Academic performance	24.56	29.72	33.70	36.86

Note: -1. The Means are arranged in ascending order from left to right, any two Means not underscored by the same line are significantly different at 0.05 levels.
2. Any two means underscored by the same line are not significantly different at 0.05 levels.

It is evident from Table-4, that the students studying in Private Schools got the highest mean scores and differed significantly from the Academic performance of the students studying in the Zilla Parishad High School, A.P. Residential School and Government High School. The Mean Academic performance of students classified according to Management is pictorially shown in Graph-2. But there is no significant difference in the Academic performance of the students studying in Zilla Parishad High School and Private High School.

Graph – 2: Mean Academic performance of students classified according to Type of Management



Hence there is significant difference between the Type of Management and Academic Performance of Class X students.

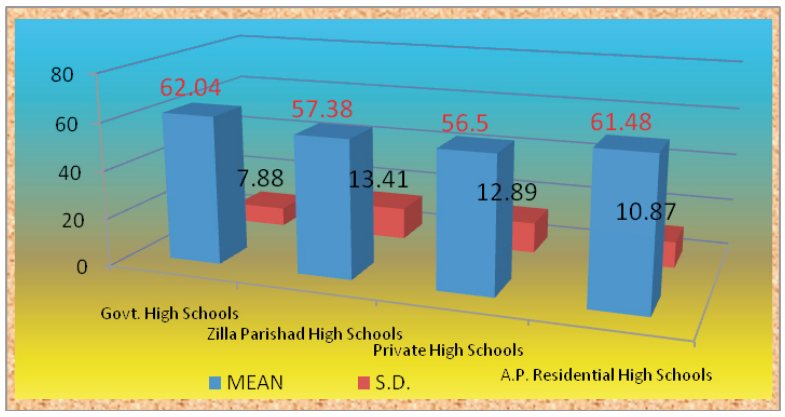
Hypothesis-3: There is no significant difference between the Type of Management and Anxiety of Class X students.

Table -5: Mean and S.D. of Anxiety scores of students studying under different Managements.

S.No.	Type of Management	N	Mean	S.D.
1	Government High School (Govt.)	50	62.04	7.88
2	Zilla Parishad High School (Z.P.H.S.)	50	57.38	13.41
3	Private High School (P.H.)	50	56.50	12.89
4	A.P. Residential High School (A.P.R.)	50	61.48	10.87

It can be seen from Table-5 that the mean Anxiety scores of the Government High School students is higher than the A.P. Residential High School students, followed by the students studying in Zilla Parishad and Private High Schools. The Mean and S.D. of the Anxiety scores of students studying in different Management schools are pictorially shown in Graph-3.

Graph -3: Mean and S.D. values of Anxiety scores of students studying in different Management schools.



A further analysis of Anxiety scores of students is carried out by one way ANOVA, to find out whether there is any significant difference between the Management type and Anxiety level of the students.

Table – 6: ANOVA of students studying under different Managements and their Anxiety scores

S. No.	Source of variation	Sum of squares	df	Mean of Sum of squares	'F' Ratio
1.	Between groups	11888.13	3	3962.71	3.01*
2.	Within groups	257986.90	196	1316.26	
	Total	269875.03	199		

*Significant at 0.05 level

From Table-6, the obtained 'F' ratio (3.01) is significant at 0.05 levels. Therefore, the hypothesis-3 is rejected. This shows that Management Type has significant effect on Anxiety of the students. To examine which of the four groups differ significantly from the others, t-test is applied.

Table – 7: Mean Anxiety scores of students classified according to their school Management using results of t-test.

Management	Govt.	A.P.R.	Z.P.H.S.	P.H.
Anxiety	56.50	57.38	61.48	62.04

The results in Table-7 reveals that the students studying in A.P. Residential School and Government High School did not differ significantly from each other, but differ significantly from other students studying in Private and Zilla Parishad Schools in their level of Anxiety. In other words, students studying under Private School Management have significantly low Anxiety than the students studying in Government schools.

Economic Status of the Family and relation to Anxiety

On the basis of the monthly income of the family the subjects are categorized into three Economic Status groups, first group consists of students from rich family whose parents' monthly income is Rs. 60,001 and above. Second group is students from middle class family, whose parents' monthly income is between 12,001 to Rs.60, 000. The remaining group is treated as students from poor family whose parents' monthly income is below Rs. 12,000.

Hypothesis-4: There is no significant difference between the influences and Economic status of the students and the Anxiety of Class X students.

The Means and S.D. of the Anxiety scores of the students classified according to their Economic status are presented in Table-8.

Table – 8: Mean and S.D. of the Anxiety scores of the students classified according to Economic status of the family

S. No.	Economic Status of the family	N	Mean	S.D.
1.	Rich Family	20	55.65	11.78
2.	Middle class family	83	57.81	11.67
3.	Poor Family	97	61.43	11.31

It can be seen from Table-8 that the mean scores of the subjects belonging to poor family group is 61.43, while that of the middle class family group is 57.81 and that of rich family group is 55.65. We find that poor family group students have high Anxiety and students belonging to rich family group have low Anxiety.

An analysis on Anxiety scores of the students is carried out by one way ANOVA, to find out whether there is any significant difference in Anxiety scores of the three groups of students belonging to different Economic status of the family.

Table – 9: Results of ANOVA of Anxiety scores of students classified according to Economic status of the family.

S. No.	Source of variation	Sum of squares	df	Mean of sum of squares	'F' Ratio
1.	Between groups	89.22.50	2	4461.25	3.37*
2.	Within groups	260952.25	197	1324.63	
	Total	269874.75	199		

Total 269874.75 199

* Significant at 0.05 level

The obtained 'F' ratio 3.37 is significant at 0.05 levels (Table-9). The hypothesis-4 is rejected. The Economic status of the family has significant effect on students' Anxiety.

Table – 10: Mean Anxiety scores of students classified according to Economic status of the family using results of t–test.

Economic status	Rich family	Middle class family	Poor family
Anxiety	55.65	57.81	61.43

It is evident from Table-10 that the students whose Economic status of the family is poor have differed significantly from that of middle class and rich family in their Anxiety level. But there is no significant difference in the Anxiety of students belonging to rich family and middle class family.

Hypothesis-5: There is no significant difference between the Economic status of the students and the Academic performance of Class X students.

The mean scores of the subjects belongs to rich family group is 35.95, while that of those who belongs to middle class family group is 34.06 and for poor family group it is 27.79 as shown in Table-11.

Table – 11: Mean and S.D. scores of Academic performance of students classified according to the Economic status

S. No.	Economic Status of the family	N	Mean	S.D.
1.	Rich Family	20	35.95	10.69
2.	Middle class Family	83	34.06	09.86
3.	Poor family	97	27.79	10.77

It is evident that the Academic performance of the students belonging to rich family group is higher than the mean Academic performance of the students belonging to middle class families and poor families.

Analysis on Academic performance of the students is further carried out by one way ANOVA, to find out whether there is any significant difference in the Academic performance of the three groups of students belonging to different Economic status of the family.

Table – 12: Results of ANOVA of Academic performance of students according to the Economic status of the family.

S. No.	Source of Variation	Sum of Squares	df	Mean of Sum of squares	'F' Ratio
1.	Between groups	22556.72	2	11278.36	8.88**
2.	Within groups	212835.20	197	1080.38	
	Total	235391.92	199		

** Significant at 0.01 level

The obtained 'F' ratio 8.88 is significant at 0.01 levels as shown in Table-12. It reveals that the Economic status of the family has significant effect on Academic performance. To examine which of the three groups differed significantly from the others, t-test is applied.

Table – 13: Mean Academic performance of students classified according to the Economic status of the family using result of t–test.

Economic status	Poor family	Middle class family	Rich family
Academic performance	27.29	34.06	35.95

It is evident from the Table-13 that the students coming from rich family got the highest mean Academic performance and differed significantly from the Academic performance of the students of middle class family and the poor family. But there is no significant difference in the Academic performance of students of rich family and middle class family.

Hence, the hypothesis cannot be accepted. The Economic status of the student surely influences the Academic performance.

Hypothesis-6: There is no significance difference between the Anxiety and Academic performance.
To test the relationship between Anxiety and Academic performance of the students, the data is analyzed and values obtained are presented in Table-14.

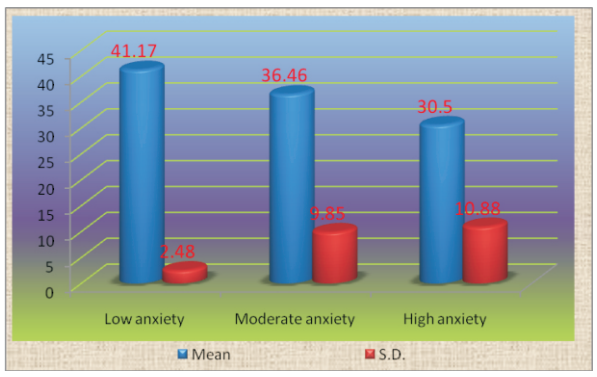
Table - 14: Mean and S.D. scores of Academic performance of the students classified according to their Anxiety level.

S. No.	Anxiety group	N	Mean	S.D.
1.	Low anxiety	6	41.17	2.48
2.	Moderate anxiety	13	36.46	9.85
3.	High anxiety	181	30.50	10.88

We note that the Anxiety falls into three groups, namely, low Anxiety group (up to 35), moderate Anxiety group (between 36 to 45) and high Anxiety group (46 and above).

It can be seen from the table-14, that the Mean Academic performance scores of the low Anxiety group students is 41.17. The mean Academic performance of the high and moderate Anxiety group students are 30.50 and 36.46 respectively (Graph-4).

Graph - 4: Mean and S.D. values of Academic performance of the students classified according to their Anxiety levels.



The students of low Anxiety are having high Academic performance and the students with high Anxiety have low Academic performance. The Mean and S.D. scores are pictorially shown in Graph-4.

A further analysis of the Academic performance of the three groups of students is carried out by one way ANOVA, to find out whether there exists significance difference between the Academic performances of the three Anxiety groups.

Table - 15: Results of ANOVA of Academic performance of three groups of students classified according to their Anxiety level.

S. No.	Source of Variation	Sum of Squares	df	Mean of Sum of squares	'F' Ratio
1.	Between groups	3568.91	2	1784.45	4.57*
2.	Within groups	231823.00	197	1176.77	
	Total	235401.91	199		

*Significant at 0.05 level

It can be seen from Table-15 that the obtained 'F' ratio (4.57) is significant at 0.05 levels for 2 and 197 df. It reveals that there is significant effect of the Anxiety on their Academic performance. Therefore, the hypothesis-6 is not acceptable. Students with different levels of Anxiety differ significantly in their Academic performance.

To examine which of the three groups differ significantly from the others, t-test is applied.

Table - 16: Mean Academic performance of the students classified according to their Anxiety level using the result of t–test

Anxiety	High Anxiety	Moderate Anxiety	Low Anxiety
Academic performance	30.50	36.46	41.17

It is evident from Table-16 that students with high Anxiety have shown significantly low Academic performance than the students with the moderate and low Anxiety. But there is no significant difference in Academic performance of the students with moderate and low Anxiety. In other words, lower the Anxiety, higher is the Academic performance and vice versa.

SUMMARY AND CONCLUSIONS

Anxiety happens to be one of psychology's umbrella constructions. It covers so wide an area of research and speculation that no precise specifications of the usages are possible. In this paper a study of the effects of Anxiety on the Academic performance of School students has been made. Since Anxiety can also be caused by external variables such as Type of Management of the School as well as the Type of the Economic status (poor or rich etc) of the student, how far these factors can influence the Anxiety and the Academic performance significantly is studied. Six Hypotheses are formulated and analyzed one by one.

The Type of Management has significant effect on the Anxiety and Academic performance of students. Students studying in Government and A.P. Residential schools have significantly higher level of Anxiety than the students studying in Zilla Parishad and Private Schools. It is found that the School Management Type plays a key role in Academic performance of students. An important finding is that the Type of Management of the school and Economic Status of the student are significantly influencing the Anxiety of the students.

The Economic status significantly influences the Academic performance of poor family students while the difference between the performance of rich and middle class students is not significant. The mean

score of the subjects belonging to poor family group is 61.43, while that of middle class family group is 57.81 and that of rich family group is 55.65. It is shown that the Anxiety and Academic performance are inversely related. The influence of Anxiety on gender is not significant as far as X Class students are concerned.

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