

Study of Examination Anxiety among Senior Secondary Chemistry Students

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In the present study, the researchers attempted to study the level of Examination anxiety among the chemistry students studying at senior secondary level and to explore the examination anxiety in relation to their locality (rural/urban), gender (male/female), and management of school (government / Private), board of examinations (CBSE/RBSE). The survey has been done by using SEAT (Students Examination Anxiety Test) constructed and standardized by Dr. Madhu Agarwal and Ms. Varsha Kaushal (2005). The test contains 38 questions to determine examination anxiety. The sample of study consists of 100 students from 6 different schools of Jaipur district of Rajasthan. The data has been collected using online Google form responses. Results show that 55 % senior secondary chemistry students were found to have moderate level of examination anxiety, while 30 % were having high level and 15 % were having low level of examination anxiety. Chemistry students were found to be differed significantly on examination anxiety on the basis of gender, locality, and type of board but no significant difference was observed on the basis of management type of school.

Keywords: Examination Anxiety, Senior Secondary Chemistry Students

Every child has unique interest, potential, capabilities, and abilities for reacting in a unique manner to the new situation. Due to the continuous pressure from the surrounding world and his different human aspects a feeling of restlessness is created in the mind of children. In a universal quest for the search of excellence in the children, some children are not able to cope with the challenging and demanding situation that causes restlessness in them. One of them we addressed as anxiety. Anxiety term originated from the Latin word `anxietas` which means "a different kind of experience dread, uncertainty and agitation. Education is a lifelong learning process which starts from the birth and goes on throughout the life. The higher secondary stage of education covers the adolescence period of an individual's life. Adolescence considered as the most significant and crucial period in development of an individual life span. So, this stressful stage thus automatically brings out anxiety and tension in the student's life. The anxiety, tension and stress regarding the future, career, and higher marks triggers examination anxiety in students

How can one define examination anxiety? Examination anxiety is a combination of physiological, over-arousal, tension, and somatic symptoms along with worries, dread, fear of failure and that occur before or during examination situations (Zeidner, 1998). The symptoms of examination anxiety includes Physical acute sweating, Dumpiness of lungful of air, Fast heartbeat Low self-esteem, Feeling of helplessness etc. The history of research on test or examination anxiety is very long and fertile. Research on test anxiety began to rise exponentially after the creation of tool to examine test anxiety during the studies conducted by Brown (1938). In India, the first attempt to comprehend the backgrounds of test anxiety was made by Nijhawan (1972) on school children. S. R. Chowdhary (2019) study displayed that boys encompass less examination anxiety in comparison with girls. B. Preeti and Q. S. Kausar (2016) finding of their study concluded the positive correlation between the problem solving ability and academic achievement and there is negative correlation between the academic achievement and exam anxiety. Rao et al. (2014) the finding of the result indicated that adolescent

boys student suffer from more examination anxiety as compared to adolescent girl students. Deb et al. (2010) the results reported that as compared to English medium school students Bengali medium students are more anxious. Sud and Prabha (2003) their study revealed that in academic performance, the two most significant variables are test procrastination and Exam Anxiety. Balasubramaniam (1994) the finding of the study revealed that better pupil achievement in English is achieved by the students which have higher level achievement anxiety. No research study was found on senior secondary chemistry students of Jaipur province. So it was thought to work on it.

Objectives

- To study the level of Examination Anxiety of the Senior Secondary Chemistry Students.
- To study the variance in the Examination Anxiety among chemistry students at Senior Secondary stage in relation to their gender (male/female).
- To study the variance in Examination Anxiety among chemistry students at Senior Secondary stage in relation to the locality of the school (rural/urban).
- To study the variance in Examination Anxiety among chemistry students at Senior Secondary stage in relation to the management type of the school (Government / Private).
- To study the variance in Examination anxiety among chemistry students at Senior Secondary stage in relation to the Board of School (CBSE/RBSE).

Method

In the present study, Normative Survey method of research was used. All the necessary steps have been followed which have suggested being essential for the Normative Survey Method of research by most of the educationists.

Sample

The sample of present study consists of 100 students from 6 different schools of Jaipur district of Rajasthan.

Tool Used

The examination anxiety of senior secondary chemistry students were measured by Students Examination Anxiety Test (SAET) constructed and standardized by Dr. Madhu Agarwal and Ms. Varsha Kaushal (2005). The test contains 38 questions to determine examination anxiety. All the questions were close ended.

Results

The level of examination anxiety of senior secondary chemistry students were measured by Students Examination Anxiety Test. The number of chemistry students with percentage in the category of high, average and low are given in Table-1.

Table 1. Summary of the level of Examination Anxiety of senior secondary chemistry students

S. No.	Level of Examination Anxiety	Number & % of Students
1.	High	30
2.	Average	55
3.	Low	15

Table 1 discloses that Low degree of examination anxiety was found in 15% senior secondary chemistry students; average/moderate degree of examination anxiety was found in 55% chemistry students; high degree of examination anxiety was found in 30% chemistry students at senior secondary stage.

To study the significance of differences between senior secondary students of different groups on examination anxiety, t-test was used. All statistical values were calculated with the help of Microsoft Excel. Summary of t-test for difference between different groups of students on examination anxiety are given in Table – 2,3,4,5. To find out the table value for degree of freedom (df) - 98 at 0.05 level of significance and 0.01 level of significance, p-value calculator (<https://www.danielsoper.com/statcalc/calculator.aspx?id=8>) for student's t-test was used. Table values for degree of freedom (df) -98 at 0.05 and 0.01 level of significance were found to be 1.973 and 2.601, respectively.

Table 2. Summary of t-test for difference between Male and Female senior secondary chemistry students on Examination Anxiety

Student type	N	Mean	S.D.	t- value
Male	49	18.83	7.20	2.67*
Female	51	22.41	8.33	

It is evident from Table -2 that t-value between the means of Male and Female senior secondary chemistry students on examination anxiety was found to be 2.67. This calculated t-value (2.67) was greater than the table value at 0.01 level of significance but less than the table value at 0.05 level of significance. This reveals the fact that Male and Female senior secondary chemistry students were found to be differed significantly on examination anxiety at 0.01 level of significance. Since, the mean difference was in favor of Female senior secondary chemistry students which indicate that Female students were found to have more examination anxiety than male senior secondary chemistry students.

Table 3. Summary of t-test for difference between Rural and Urban senior secondary chemistry students on Examination Anxiety

Student type	N	Mean	S.D.	t- value
Rural	50	24.52	6.60	5.22*
Urban	50	16.8	7.36	

It is evident from Table -3 that t-value between the means of Rural and Urban senior secondary chemistry students on examination anxiety was found to be 5.22. This calculated t-value (5.22) was greater than the table value at 0.01 level of significance. This reveals the fact that Rural and Urban senior secondary chemistry students were found to be differed significantly on examination anxiety at 0.01 level of significance. Since, the mean difference was in favor of Female senior secondary chemistry students which indicate that rural students were found to have more examination anxiety than urban senior secondary chemistry students.

It is evident from Table -4 that t-value between the means of senior secondary chemistry students of government and private schools on examination anxiety was found to be 1.003. This calculated t-value (1.003) was less than the table value at 0.05 level of

significance. This reveals the fact that senior secondary chemistry students of government and private schools were not found to be differed significantly on examination anxiety at 0.05 level of significance. It means that senior secondary chemistry students of government and private schools are having almost same level of examination anxiety.

Table 4. Summary of t-test for difference between senior secondary chemistry students of Government and Private Schools on Examination Anxiety

Students belong to	N	Mean	S.D.	t- value
Government Schools	50	19.92	7.11	1.033
Private Schools	50	21.4	8.74	

Table 5. Summary of t-test for difference between senior secondary chemistry students of CBSE and RBSE Boards on Examination Anxiety

Students belong to	N	Mean	S.D.	t- value
CBSE Board	50	17.05	7.10	4.84*
RBSE Board	50	24.40	7.09	

It is evident from Table -5 that t-value between the means of senior secondary chemistry students of CBSE and RBSE boards on examination anxiety was found to be 4.84. This calculated t-value (4.84) was greater than the table value at 0.01 level of significance. This reveals the fact that senior secondary chemistry students of CBSE and RBSE boards were found to be differed significantly on examination anxiety at 0.01 level of significance. Since, the mean difference was in favor of senior secondary chemistry students of RBSE board which indicate that students of RBSE board were found to have more examination anxiety than senior secondary chemistry students of CBSE board.

Conclusion

The results show that Low degree of examination anxiety was found in 15% chemistry students; average/moderate degree of examination anxiety was found in 55% chemistry students; high degree of examination anxiety was found in 30% chemistry students at senior

secondary stage. Female senior secondary chemistry students were found to possess more examination anxiety as compared to male senior secondary chemistry students. Rural senior secondary chemistry students were also found to possess more examination anxiety than their counterpart urban senior secondary chemistry students. Similarly, senior secondary chemistry students of RBSE board possess more examination anxiety as compared to senior secondary chemistry students of CBSE board, while there was no significant difference between chemistry students of government and private schools on examination anxiety.

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