A STUDY ON TEST ANXIETY OF SECONDARY STUDENTS

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Abstract

Introduction: Test anxiety has an impact on students either negative or positive. It is normal to have exam anxiety that help the students to prepare them for facing examination on the other hand it can also distress the students and disturb them physically, emotionally; cognitively that can result in poor examination performance. The current study had analysed the past reviews regarding test anxiety impacting student performance in their examinations. **Aims:** To evaluate the test anxiety levels among secondary students during paper-and-pen examination. **Settings and Design:** The descriptive survey based study was conducted in secondary students in Vellore district of Tamilnadu. **Methods and Material:** A sample of 147 male and 103 female secondary students of the preparatory year of secondary students was selected by random sampling technique. Test anxiety was quantified by using developed by Spielberger, et al., (1978). **Statistical analysis:** Descriptive and inferential statistics were used to analyze data. Test anxiety scores were compared by t-test and F test. Data were analyzed using SPSS version 22. **Result:** It is found that the secondary students irrespective of their gender, location of school, location of residence, nature of institution, study hour, parental qualification and parental occupation have average level of test anxiety.The result of the study revealed that though there is no significant difference among the secondary students regarding in their test anxiety on the basis of gender, location of school, location of residence, nature of institution, study hour and parental qualification further it shows there is significant difference among the secondary students regarding in their test anxiety on the basis of parental occupation.

Key words: Test anxiety, Secondary students

Introduction

Test anxiety which is an unpleasant feeling of nervousness experienced by students just before, during and after tests and is definitely an important consideration to keep in mind while evaluating a student Columbus, Alexandra, ed. (2006). Test anxiety can not only mask the actual abilities of a student but also undermine it. This

can adversely affect the outcome of a student's performance in exams thus making the educational surroundings unfriendly Karatas, Hakan, Bulent Alci, and Hasan Aydin. (2013). Test anxiety can infuse negativism like decreased self-esteem and confidence thus making the students emotionally unstable. This causes the students to keep on trying to postpone the exams rather than focusing on preparation. Those students with less test anxiety are under less stress emotionally and physically than with higher anxiety Saravanan, Coumaravelou, Rajiah Kingston, and May Gin. (2014). Test anxiety has proven to decrease the student's academic performance and hinder their learning Chapell, Mark S., et al.(2005) and has also proved it to be a significant factor for the failure of students to achieve their academic goals. Test anxiety can have adverse effects on people of all age groups especially when it involves them to be tested for academic Lufi, Dubi, Susan Okasha, and Arie Cohen.(2004).

Test anxiety is an undesirable reaction toward evaluation. It's the most important problem that is faced by the students in their education worldwide (Khosravi & Bigdeli, 2008). Test anxiety is a psychological condition in which students experience extreme distress and anxiety in test situations. A little anxiety during exams is required that will help students to get motivated and learn. Mounting up so much of anxiety will not help the student to perform rather it will influence the academic performance negatively (Coon & Mitterer, 2009). The psychological symptoms that build up in students before a test includes restlessness, unusual body movements, difficulty in concentrating, insomnia, fatigue, muscle contraction, abdominal pain, and tremors (Porto, 2013). These symptoms have negative consequences on student lives and professional growth (Ferreira, Almondes, Braga, Mata, Lemos & Maia, 2014)

Materials and methods

Study Design

This study was descriptive research design conducted at Vellore district at Tamilnadu. A total of 250 secondary students from preparatory year (147 male, 103 female) participated in the study. The data collection was done during periods of a months. The purpose and nature of the study were explained and informed.

Statistical Analysis

Data was coded, entred, cleaned and analysed using SPSS statistical software package version 22. For the data analysis, descriptive statistics including frequency, mean and standard deviation. Student's t-test and F test was used to compare mean test anxiety scores. Appropriate statistical analysis were carried out according to the study variables. The significance level was chosen as ($p < 0.05$).

Research Tool Used

Test Anxiety Inventory (TAI), has been developed by Spielberger, et al., (1978). In order to identify the Test Anxiety levels of the students, the Test Anxiety Inventory was used. Original 20 item, English version of the Test Anxiety Inventory (TAI), has been developed by Spielberger, et al., (1978) was designed to assess individual differences in anxiety proneness in test situation. This self-report inventory has been developed and standardized with large samples of high school and college students. The range of possible score is from a minimum score of 20 to maximum score of 80, on a four-point rating scale, ranging from: (1) Almost never to (2) Sometimes (3) Often and (4) Almost always. It consists of two subscales for measuring 'Worry' and 'Emotionality' having eight items in each subscale.

Objectives of the Study

1. To find out the level of test anxiety of secondary students.
2. To find out the difference if any between the following secondary students in respect of their test anxiety

- Gender : Male/ Female
- Location of School : Rural / Urban
- Location of Residence : Rural / Urban
- Nature of Institution : Government/ Private / Aided
- Study Hour : 2 / 4 / 6
- Parental Qualification : School Education/College Education
- Parental Occupation : Self Employ / Government employ

Hypotheses of the Study

1. The test anxiety of secondary students is high.

2. There is no significant difference between the following sub-samples with respect to the test anxiety of secondary students.

- Gender : Male/ Female
- Location of School : Rural / Urban
- Location of Residence : Rural / Urban
- Nature of Institution : Government/ Private / Aided
- Study Hour : 2 / 4 / 6
- Parental Qualification : School Education/College Education
- Parental Occupation : Self Employ / Government employ

Descriptive Analysis

TABLE – 1

DESCRIPTIVE STATISTICS FOR TEST ANXIETY OF SECONDARY STUDENTS

Categories	Sub Samples	N	Mean	SD
Gender	Male	147	54.03	11.14
	Female	103	53.23	11.61
Location of school	Rural	127	53.37	11.73
	Urban	123	54.04	10.92
Location of residence	Rural	132	54.06	11.13
	Urban	118	53.30	11.56
Nature of institution	Government	80	54.30	11.23
	Private	76	53.26	11.07
	Aided	94	53.55	11.68
Study hour	2	37	57.13	10.04
	4	120	53.18	11.62
	6	93	53.01	11.27
Parental Qualification	School education	137	54.12	11.43
	College	113	53.19	11.21

	education			
Parental Occupation	Self employ	143	55.09	11.39
	Government employ	107	51.84	11.01

In this study, based on normal curve of secondary school students secured scores in between 47.09 to 67.17 (-1σ to +1σ) are classified as having average level of test anxiety. In the table 1 shows the test anxiety mean and standard deviation values. The calculated mean values are less than 67.17 and more than 47.09. Therefore, it is found that the secondary students irrespective of their gender, location of school, location of residence, nature of institution, study hour, parental qualification and parental occupation have average level of test anxiety.

Differential Analysis for Test anxiety – Secondary students

TABLE 2

't' TEST VALUES FOR TEST ANXIETY SCORES – SECONDARY STUDENTS– BASED ON GENDER

Categories	Sub-Samples	N	Mean	S.D	't' Value
Gender	Male	147	54.03	11.14	0.550 NS
	Female	103	53.23	11.61	

Table 2 further reveals the mean, standard deviation and 't' values of male and female secondary students on test anxiety. The calculated 't' value is 0.550 which is lesser than the table value of 1.97 to be significant at 0.05 level. Therefore, the research hypothesis is rejected and null hypothesis is accepted. Further it is found that the male and female secondary students do not differ significantly in their test anxiety.

TABLE 3

't' TEST VALUES FOR TEST ANXIETY SCORES – SECONDARY STUDENTS – BASED ON LOCATION OF SCHOOL

Categories	Sub-Samples	N	Mean	S.D	't' Value
Location of school	Rural	127	53.37	11.73	0.462
	Urban	123	54.04	10.92	NS

Table 3 further reveals the mean, standard deviation and 't' values of rural and urban secondary students on test anxiety. . The calculated 't' value is 0.462 which is lower than the table value of 1.97 to be significant at 0.05 level. Therefore, the research hypothesis is rejected and null hypothesis is accepted. Further it is found that the rural and urban secondary students of location of school do not differ significantly in their test anxiety.

TABLE 4

't' TEST VALUES FOR TEST ANXIETY SCORES – SECONDARY STUDENTS – BASED ON LOCATION OF RESIDENCE

Categories	Sub-Samples	N	Mean	S.D	't' Value
Location of residence	Rural	132	54.06	11.13	0.526
	Urban	118	53.30	11.56	NS

Table 4 further reveals the mean, standard deviation and 't' values of rural and urban secondary students on test anxiety. . The calculated 't' value is 0.526 which is lower than the table value of 1.97 to be significant at 0.05 level. Therefore, the research hypothesis is rejected and null hypothesis is accepted. Further it is found that the rural and urban secondary students of location of residence do not differ significantly in their test anxiety.

Table 5

'F' TEST AMONG THE SUB- SAMPLES OF NATURE OF INSTITUTION WITH RESPECT IN THEIR TEST ANXIETY

Nature of institution	Sum of Squares	Mean Squares	df	'F' Value	Level of Significance
Between Groups	45.325	22.663	2	0.176	NS
Within Groups	31876.771	129.056	247		
Total	31922.096		249		

It is evident from the Table 5, the calculated 'F' value is 0.176, which is not significant at 0.05 level. Hence, the framed null hypothesis is accepted and research hypothesis is rejected. It is inferred that there is no significant difference among sub samples of nature of institution with respect to their test anxiety of secondary students.

Table 6

'F' TEST AMONG THE SUB- SAMPLES OF STUDY HOUR WITH RESPECT IN THEIR TEST ANXIETY

Study hour	Sum of Squares	Mean Squares	df	'F' Value	Level of Significance
Between Groups	512.816	256.408	2	2.016	NS
Within Groups	31409.280	127.163	247		
Total	31922.096		249		

It is evident from the Table 6, the calculated 'F' value is 2.016, which is not significant at 0.05 level. Hence, the framed null hypothesis is rejected and research hypothesis is accepted. It is inferred that there is no significant difference among sub samples of study hour with respect to their test anxiety of secondary students.

TABLE 7

't' TEST VALUES FOR TEST ANXIETY SCORES – SECONDARY STUDENTS – BASED ON PARENTAL QUALIFICATION

Categories	Sub-Samples	N	Mean	S.D	't' Value
Parental qualification	School education	137	54.12	11.43	0.645 NS
	College education	113	53.19	11.21	

Table 7 further reveals the mean, standard deviation and 't' values of school education and college education of secondary students on test anxiety. The calculated 't' value is 0.645 which is lower than the table value of 1.97 to be significant at 0.05 level. Therefore, the research hypothesis is rejected and null hypothesis is accepted. Further it is found that the school education and college education of parental qualification of secondary students do not differ significantly in their test anxiety.

TABLE 8

't' TEST VALUES FOR TEST ANXIETY SCORES – SECONDARY STUDENTS – BASED ON PARENTAL OCCUPATION

Categories	Sub-Samples	N	Mean	S.D	't' Value
Parental Occupation	Self employ	143	55.09	11.39	2.269 S
	Government employ	107	51.84	11.01	

Table 8 further reveals the mean, standard deviation and 't' values of government and self employ of secondary students on test anxiety. The calculated 't' value is 2.269 which is greater than the table value of 1.97 to be significant at 0.05 level. Therefore, the research hypothesis is accepted and null hypothesis is rejected. Further it is found that the government employ and self employ of parental occupation of secondary students differ significantly in their test anxiety.

Major Findings of the Study

1. It is found that the secondary students irrespective of their gender, location of school, location of residence, nature of institution, study hour, parental qualification and parental occupation have average level of test anxiety.
2. It is found that the male and female secondary students do not differ significantly in their test anxiety.
3. It is found that the rural and urban secondary students of location of school do not differ significantly in their test anxiety.
4. It is found that the rural and urban secondary students of location of residence do not differ significantly in their test anxiety.
5. It is inferred that there is no significant difference among sub samples of nature of institution with respect to their test anxiety of secondary students.
6. It is inferred that there is no significant difference among sub samples of study hour with respect to their test anxiety of secondary students.
7. It is found that the school education and college education of parental qualification of secondary students do not differ significantly in their test anxiety.
8. It is found that the government employ and self employ of parental occupation of secondary students differ significantly in their test anxiety.

Conclusion

Test anxiety levels among secondary students use was found to be average than paper and pen examination. The other accidental finding was that female secondary students show the extremely high level of test anxiety as compared to a male secondary student for paper and pen examination.

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