



Development and standardization of Test Anxiety Scale (TAS)

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Abstract

Test taking in any form and for any subject can be quite stressful. Test anxiety is a psychological condition in which the test taker experiences severe distress and anxiety when thinking about or taking an exam. People who suffer with test anxiety have such a great fear of not performing well that it prevents them from doing just that. Test Anxiety is a combination of physical symptoms and emotional reactions that interfere with your ability to prepare for and perform well on tests. It is a serious problem for many student populations. The study of test anxiety is an important one and for which the investigator has decided to develop and standardize a scale to measure it.

Keywords: educational performance, test anxiety, worries, cognitively, sensually

Introduction

The terms fear of test and test anxiety that are used interchangeably in literature, although they have different indicators, should be given attention. Fear represents the reaction to a specific observable danger while anxiety is an aimless state of concern. It is stated that fear of test motivates a person as long as it is within reason while test anxiety is said to affect students negatively, cognitively, sensually and behaviourally. As a result of such negative effects of test anxiety on students, studies aimed at determining and minimizing the effects of certain factors on students' test anxiety levels have gained momentum, and suggestions for minimizing students' levels of test anxiety have been made frequently in literature. Although various comments have been made about the origins of test anxiety, it is stated that many factors including socio-economic and demographic variables, educational systems and cultural values of education, certain emotional states, students' past experiences and beliefs affect the development of test anxiety. One of worries and problems of educational system and students is exam problem. Exam, the word that all student are familiar with that and some of them worried by nearing its name of course anxiety have measure and severity and variation undulate. Severity of anxiety is when that exam is near and in exam night increased to its severity. Despite many tool available on test anxiety, the researcher what to update the tool to get appropriate results according to the recent development. The Likert type scale is a five-point scale of "Strongly Agree", "Agree", "Undecided",

"Disagree", "Strongly Disagree". In this scale 65 items have been collected from the various sources like students from the expert's, other web resources, books and so on.

Pilot Study

This scale contains 65 items as been administering to the sample of 100 higher secondary school students studying in different schools in Krishangiri district, Tamil Nadu, India, In order to carry out the pilot study. Then their responses have been scored carefully and their marks secured by all the samples have been arranged in the descending order from the highest scorer to lowest scorer. Then they were subjected to item analysis.

Item Analysis

The next step is the student's test anxiety scale after pilot study is to find out the t-value of each item, which forms the basis for item selection in order to build up a final scale. The Likert type scale calls for a graded response to each item on a five-point scale ranging from "Strongly Agree", "Agree", "Undecided", "Disagree", "Strongly Disagree". The individual score for all the hundred students were ranked from the highest to lowest score. then 25 percentage of the subjects with the highest total scores and 25 percentage of the subjects with the lowest total scores were scored out for the purpose of item selection. The high and low groups, were selected, formed the criterion groups and each group was made up of 25 students. (Edward. L. Allen, 1957).

Table 1: Item selected for students Test Anxiety Scale (TAS)

Item Number	'T' Value	Item Selected
1	4.42	S
2	3.80	S
3	4.42	S
4	1.27	NS
5	1.62	NS
6	3.89	S
7	2.83	S
8	0.30	NS
9	2.28	S
10	3.46	S
11	2.34	S
12	3.15	S
13	2.03	S
14	3.55	S
15	3.04	S
16	4.43	S
17	2.30	S
18	3.43	S
19	4.85	S
20	1.80	S
21	4.16	S
22	3.69	S
23	2.66	S
24	1.36	NS
25	0.51	NS
26	4.92	S
27	4.54	S
28	1.30	NS
29	1.71	NS
30	1.64	NS
31	3.15	S
32	2.16	S
33	3.13	S
34	4.18	S
35	3.65	S
36	4.02	S
37	4.55	S
38	3.88	S
39	1.70	NS
40	0.27	NS
41	4.14	S
42	3.42	S
43	2.93	S
44	3.64	S
45	2.77	S
46	3.03	S
47	0.68	NS
48	2.53	S
49	2.64	S
50	4.28	S
51	2.64	S
52	3.92	S
53	3.22	S
54	0.41	NS
55	3.13	S
56	4.18	S
57	2.70	S
58	1.88	S
59	0.64	NS
60	2.83	S
61	1.52	NS
62	3.41	S
63	4.45	S
64	1.62	NS
65	2.81	S

S–Selected NS–Not selected

In each item is followed by five different responses of “Strongly Agree”, “Agree”, “Undecided”, “Disagree”,

“Strongly Disagree” in the test anxiety scale. Then each item was taken individually and the number of students who responded “Strongly Agree”, “Agree”, “Undecided”, “Disagree”, “Strongly Disagree” Was found out both the high and low groups separately. Thus for all the 65 items, the number of students coming under each category was found out separately for both the high and low groups and the t-values for all the 65 items have been calculated with the formula suggested by Allen Edwards (1957). As many as 50 items having the t-value greater than or equal to 1.75 (Edward L. Allen, 1957) have been chosen in order to form the final scale (vide: table -I). Then this final scale has been administered to 100 students studying in different higher secondary schools of Krishnagiri District, Tamil Nadu, India, In order to establish the scoring procedure, validity and reliability of this scale.

Scoring Procedure

The Test Anxiety as 50 items out of which 30 items are positively worded and the remaining 20 items are negatively worded. An individual score is the sum of the scores of all the 50 items. The scores range from 50 to 250. Higher score indicates the high level of test anxiety. The details of scoring are given in the following table. The scoring to the response given by the respondents should be like the following.

Table 2

Response	Positive	Negative
Strongly agree	5	1
Agree	4	2
No Idea	3	3
Disagree	2	4
Strongly Disagree	1	5

Reliability

Reliability refers to the consistency with which a test measures, whatever it measures. The concept of reliability suggests both stability and consistency of measurement. The investigator calculated the reliability analysis and it was given in the following table.

Table 3: Table showing the reliability method and co-efficient values

Method of Reliability Analysis	Reliability Co-Efficient
Correlation between forms	0.671
Equal-length Spearman-Brown	0.697
Guttman Split-half	0.685
Unequal-length Spearman-Brown	0.632

Method of reliability analysis reliability co-efficient correlation between forms 0.671 equal-length Spearman-Brown 0.697, Gutt Man Split-half 0.685, Un equal length Spearman Brown 0.632.

Validity

Validity reveals the merits of our measurement. This Test Anxiety scale was given to the experts in order to find out its content validity. The experts agreed that items in the scale provided adequate coverage of the concept. This Test Anxiety scale also has construct validity.

The intrinsic validity is also called as the index of reliability

(Guilford, 1954). The formula to be used to determine the intrinsic validity is the square root of its reliability. Thus the validity of this test is

$$V = \sqrt{R} = \sqrt{0.68} = 0.824$$

Percentile Norm

The following table represents the percentile norm for this Level of Aspiration scale.

Table 4

Percentile	Score Range	Norm
Below P25(Q1)	Below 120	Low level
P25 To P75(Q to Q3)	Between 121 and 190	Average level
Above P75 (Q3)	Above 190	High level

Conclusion

The results of validity and reliability of students, Test Anxiety are depends on their family background and their study environment. Friends and family members are significantly influenced their individual sets and his instructive goal of the students. Students are set their informative goal depends on their economic background. This study concludes that economic and study environments are more reliable and valid for the students Test Anxiety.

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