

## Construction and Standardization of Teacher Stress Scale

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### ABSTRACT

An attempt has been made to construct and standardize the teacher stress scale for the high school teachers. A well structured scale was administered among them. The sample consists of 100 high school teachers randomly selected from the high schools situated in Kulgam District; J&K. Initially it was constructed with 50 statements covering six areas related to teacher stress of high school teachers. The scale was standardized using 't' test and finally 39 statements were retained for the final study. The present research discusses about the development of the scale to measure the level teacher stress among the higher secondary teachers.

**Keywords:** *Teacher stress, high school teachers, teacher stress scale etc.*

Teachers are expected to fill many roles in their daily tasks. These roles may include assessor, planner, curriculum developer, information provider, facilitator and resource developer. As a result of balancing these many roles, stress will always be a part of the teaching profession. In comparison with other jobs, teaching is considered as a very stressful job (Chaplain, 2008; De Nobile and Mc Cormick, 2005; Kyriacou 2001). Kyriacou defines teacher stress as "The experience by teachers of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspects of their work as a teacher" (Kyriacou, 2001. P.28). Stress occurs due a demand that exceeds the individuals coping ability, disrupting their psychological equilibrium. Hence, in the teaching environment stress arises when the teachers perceives a situation to be too strenuous to handle, and is threatening to their well being. Teacher's work stress not only come from the demands of administrators, colleagues, students, and parents but also comes from the work overload, student misbehaviour, level of conflict with students and colleagues and lack of recognition for accomplishments (Greenglass and Burke, 2003).

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### *Objective*

- The main objective of the study is to develop a research tool which measures the level of teacher stress among the high school teachers.

### *Content Analysis*

In order to construct the tool, the investigator referred many books, journals, web-sites, related studies, Ph.D works and discussed with high school teachers and experts in the field of Education and Psychology. The experts analyzed the tool for the relevance of areas, item difficulty, language accuracy and clarity. After a careful scrutiny of the statements, on the basis of 95% agreement among the experts, 50 statements were chosen to be included in the initial draft. Thus the initial draft of teacher stress scale consisted of 50 statements which covers six areas namely work overload (WO), time management(TM), student motivation and discipline (SMD), professional distress (PD), recognition(R) and interpersonal relationship (IR).

### *Scoring Procedure*

Each statement of the scale is followed by five alternatives viz, strongly agree, agree, undecided, disagree and strongly disagree. All the 50 statements of the scale are positive statements. The weightages given to the different responses are as: Always=5, Frequently=4, Sometimes=3, Rarely=2 and Never=1. Therefore, one can get a maximum score of 250 and a minimum score of 50.

### *Preliminary Tryout*

For the purpose of its tryout, the teacher stress scale was administered on a sample of 100 high school teachers randomly selected from high schools situated in Kulgam district; J&K. Respondents were asked to put a tick mark (✓) in the column which is appropriate to them.

### *Item Analysis*

After pilot study the next step in the standardization of a scale is to find out the 't' value of each item, which forms the basis for item selection. The individual scores of all the 100 respondents were arranged in the descending order from the highest to the lowest score. The top 25% of the subjects with the highest scores and the bottom 25% of the subjects with the lowest scores, served as criterion groups, were sorted out for the purpose of item selection. 't' value for all the 50 items have been calculated with the help of formula suggested by Allen Edwards(1957). Items with 't' value equal or greater than 1.75 (Edward. L. Allen, 1957) were accepted and those with 't' value below 1.75 were rejected. For 39 items out of 50, 't' value was found equal or greater than 1.75. Therefore, 39 items were retained in the teacher stress scale for the purpose of final try out. Hence one can get a maximum score of 195 and a minimum score of 39. The 't' value of 50 items are shown in the table-1.

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*Table-1 't' value for the statements of the teacher stress scale*

Item No.	't' value	Remarks	Item No. In Final Draft of TSC
1	4.370956788	Selected	1
2	4.714303505	Selected	2
3	7.921180344	Selected	3
4	6.885510614	Selected	4
5	6.754398827	Selected	5
6	4.869156341	Selected	6
7	6.21057067	Selected	7
8	5.764745437	Selected	8
9	<b>1.193060611</b>	<b>Not Selected</b>	-
10	5.475578201	Selected	9
11	<b>-0.534920638</b>	<b>Not Selected</b>	-
12	2.365180826	Selected	10
13	8.011042103	Selected	11
14	3.175536744	Selected	12
15	4.683748499	Selected	13
16	<b>0.830678611</b>	<b>Not Selected</b>	-
17	7.963433176	Selected	14
18	<b>1.414815227</b>	<b>Not Selected</b>	-
19	6.284493732	Selected	15
20	5.843110087	Selected	16
21	5.418183692	Selected	17
22	<b>-1.08544084</b>	<b>Not Selected</b>	-
23	1.931070236	Selected	18
24	1.861010381	Selected	19
25	<b>1.06440029</b>	<b>Not Selected</b>	-
26	3.350119546	Selected	20
27	5.365768276	Selected	21
28	5.97268763	Selected	22
29	<b>0.431700973</b>	<b>Not Selected</b>	-
30	<b>-0.872444248</b>	<b>Not Selected</b>	-
31	6.832844926	Selected	23
32	<b>1.022202504</b>	<b>Not Selected</b>	-
33	<b>-4.207855971</b>	<b>Not Selected</b>	-
34	2.827358786	Selected	24
35	5.781529811	Selected	25
36	3.931488748	Selected	26
37	2.808333352	Selected	27
38	5.430801611	Selected	28
39	4.8584827509	Selected	29
40	4.162825233	Selected	30
41	6.59296759	Selected	31
42	5.196152423	Selected	32
43	3.917616885	Selected	33
44	<b>1.48861494</b>	<b>Not Selected</b>	-
45	2.83096989	Selected	34
46	3.164387956	Selected	35

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Item No.	't' value	Remarks	Item No. In Final Draft of TSC
47	6.185550924	Selected	3
48	4.043011989	Selected	37
49	5.112077203	Selected	38
50	5.49466504	Selected	39

### ***Final Try Out***

The final version of the scale which consisted of 39 valid statements was administered again on a sample of 100 high school teachers for further statistical operations like calculation of reliability and validity of the scale and preparation of norms for the final scale.

### ***Reliability***

Reliability refers to accuracy of measurement by a tool. For the present tool, the coefficient of internal consistency has been found to be 0.902 by the Chronbachs alpha method. The coefficient of stability has been found to be 0.862 by test re-test method. Hence the tool is highly reliable.

### ***Validity***

Validity is the extent to which a test measures what it purposes to measure. The face validity of the scale has been established beyond doubt that the items selected reflect the various stress sources that teachers encounter in the teaching job. The scale has construct validity, as the items were selected using 't' value according to Edward L. Allen. The intrinsic validity of scale was found to be 0.949(0.928 in case of temporal consistency) by taking the square root of reliability coefficient. To find out its content validity, the scale was given to experts, and they agreed that the items in the scale provided adequate coverage about the concept.

### ***Norms***

To obtain the norms, the percentiles have been computed for the raw scores of teacher stress scale and are given in the table-2

***Table-2 The percentile norms of the Teacher Stress Scale***

	Work-Overload (1-11)	Time management (12-17)	Student Motivation and Discipline (18-22)	Professi onal Distress (23-28)	Recognition (29-33)	Interpersonal Relationship (34-39)	Teacher Stress Scale
Mean	33.50	18.35	13.38	17.35	15.01	16.31	113.67
Standard Deviation	7.89	5.29	3.31	3.77	5.95	6.41	25.40
Percentiles							
P <sub>10</sub>	19.10	11	9	13	8	8	75.60
P <sub>20</sub>	26	13	9	13	10	10	89
P <sub>30</sub>	30	14	12	15	11.30	12	100
P <sub>40</sub>	33	16	13	17	13	14	110
P <sub>50</sub>	35	20	13.50	17	13.50	15	116
P <sub>60</sub>	37	21	15	19	14	16.60	121.80
P <sub>70</sub>	39	23	15	20	17	20	131
P <sub>80</sub>	39	23	16	21	21	22	136.80
P <sub>90</sub>	42.9	24	18	22	15	27	150

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### *Interpretation of the Teacher Stress Scale Scores*

The percentile norms were calculated for the teacher stress scale scores and norms for the interpretation of the level of teacher stress scores for high school teachers is given in the table 3.

**Table- 3 Norms for Teacher Stress scores**

Percentiles	N	Score range	Interpretation
Below P <sub>25</sub>	25	92.25 and below	Low
P <sub>25</sub> -P <sub>75</sub>	50	92.25-131.75	Average
Above P <sub>75</sub>	25	131.75 and above	High

### **CONCLUSION**

Work stress suffered by teachers can seriously affect their health and can also adversely affect their students and the learning environment. The investigator is hopeful that this scale would be helpful to measure the stress level of teachers and to identify the major sources of teacher stress so that the management and teachers can work together to improve the working environment and conditions to combat the teacher stress.

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**Conflict of Interests:** The author declared no conflict of interests.

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