



## Teachers' occupational stress and teaching effectiveness: A correlational study

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### Abstract

The correlational study explores the relationship between teachers' Occupational Stress and their Teaching Effectiveness. Also, this study reveals the relationship between teachers' Occupational Stress and their Teaching Effectiveness based on their Gender, Location of School and Type of School. To achieve the objectives of this study, a survey approach was employed. Two scales i.e. Teacher's Occupational Stress Scale (TOSS) and Teaching Effectiveness Scale (TES) were used for collecting data from secondary school teachers in this study. A randomly selected sample of 250 Secondary School Teachers from North 24 Pgs, South 24 Pgs, and Kolkata districts in West Bengal participated in this research. The findings highlight a statistically Significant Negative relationship between Teaching Effectiveness and Occupational Stress of Secondary School Teachers. Also, there exists a significant relationship between Teaching Effectiveness and Occupational Stress of Male School Teachers, Female School Teachers, Urban School Teachers, Government and Private School Teachers at Secondary Level. But, in terms of Rural School Teachers, there exists a insignificant relationship between Teaching Effectiveness and Occupational Stress at Secondary Level.

**Keywords:** Occupational stress, effectiveness, secondary, teacher, gender, location, survey, significant

### Introduction

The effectiveness of the teaching process hinges on its specific objectives and aims, serving as the benchmark for evaluation. This emphasis on effectiveness is driven by the inherent constraints of resources in education, encompassing both human and non-human aspects. Maximizing the efficiency of teaching is a paramount concern. Effective teaching encompasses multiple dimensions. According to Raba (2017)<sup>[10]</sup>, a critical component of effective teaching is the teacher's personality. Raymond (2008)<sup>[11]</sup>, in a Gulf-based study, defines an effective university professor as someone who exhibits appreciation, fosters engaging classes, upholds fairness, prioritizes students' success, exudes a passion for their subject, cultivates friendliness, encourages questions and discussions, maintains consistent preparedness and organization, and simplifies instructional materials. It is noteworthy that the teacher's personality remains a pivotal factor in this context. This perspective aligns, to some extent, with the views of Chickering and Gamson (2006)<sup>[4]</sup> and Hiebert & Grouws (2007), who argue that effective teachers exert a discernible impact on students' progress, reflecting a synergy between theoretical development and empirical findings. In terms of feedback and evaluation, some researchers suggest that an effective teacher consistently achieves goals directly or indirectly linked to student outcomes (Anderson, 2004<sup>[1]</sup>; Chen & Hoshower, 2003)<sup>[3]</sup>. Conversely, other researchers (Hativa, 1995<sup>[6]</sup>; Gallagher, 2000<sup>[5]</sup>; Bain, 2004)<sup>[2]</sup> underscore the significance of heeding students' feedback. Hobson & Talbot (2001)<sup>[8]</sup> further emphasize the importance of evaluation, asserting that stakeholders, including administrators, faculty, and students, should collaboratively determine an appropriate evaluation system. In summary, there is no universally applicable method to measure or ascertain teaching effectiveness. Genuine effectiveness emerges from a complex interplay of factors, some intrinsic

to educators themselves, and others associated with the educational context.

Occupational stress encompasses the pressures inherent in one's job. More precisely, it arises from the struggle to effectively manage the demands of a job, often resulting from a misalignment between an individual's abilities and the requirements and conditions of their work, as emphasized by Rees (1997)<sup>[12]</sup> and underscored by Rytkonen and Strandvik (2005)<sup>[13]</sup>. In line with the current World Health Organization definition, occupational or work-related stress denotes the reaction that individuals may experience when confronted with job demands and pressures that exceed their knowledge and skills, challenging their ability to cope. It's important to note that the experience of occupational stress can vary from one person to another, even within similar work environments, potentially influenced by demographic factors, as suggested by Kyriacou (2001)<sup>[9]</sup>, particularly in the context of teachers and other staff. Occupational stress represents a significant health concern that can manifest as either physical or psychological disorders arising from one's work environment. It manifests through a range of distressing symptoms, including heightened anxiety, persistent tension, muscular cramps, and digestive issues.

Teachers' occupational stress is an important factor that significantly influences teaching effectiveness. The demanding nature of the teaching profession can often lead to stress and, if left unmanaged, it can have detrimental consequences on both educators and students. Stress can lead to teacher burnout, reduced job satisfaction, and negative physical and mental health outcomes, all of which can hinder a teacher's ability to create a positive and engaging learning environment. Furthermore, high stress levels can impair decision-making, classroom management, and teacher-student relationships, ultimately diminishing the quality of instruction. To enhance teaching effectiveness, it

is imperative for schools and educators to prioritize strategies for stress management, promote teacher well-being, and create supportive work environments that enable teachers to thrive in their roles and, in turn, foster better learning outcomes for their students.

**Objectives of the Study**

Following objectives were identified for this particular study–

**O1:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Male School Teachers at Secondary Level.

**O2:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Female School Teachers at Secondary Level.

**O3:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Urban School Teachers at Secondary Level.

**O4:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Rural School Teachers at Secondary Level.

**O5:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Government School Teachers at Secondary Level.

**O6:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Private School Teachers at Secondary Level.

**O7:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Secondary School Teachers.

**Research Hypotheses**

Based on an extensive review of literature from both Indian and foreign sources, the researchers have developed the following research hypotheses -

**Ho1:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Male School Teachers at Secondary Level.

**Ho2:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Female School Teachers at Secondary Level.

**Ho3:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Urban School Teachers at Secondary Level.

**Ho4:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Rural School Teachers at Secondary Level.

**Ho5:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Government School Teachers at Secondary Level.

**Ho6:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Private School Teachers at Secondary Level.

**Ho7:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Secondary School Teachers.

**Methodology of the Study**

**Population:** The researchers included all secondary school teachers in West Bengal as the population of the study.

**Sample:** The sample were selected randomly from the different schools of North 24 Pgs, South 24 Pgs and Kolkata districts. The sample was comprise from 25 randomly

selected schools and total 250 teachers of secondary schools were selected as sample for this study.

**Sample Structure**

A sample of 250 secondary school teachers was selected for this research. Among 250 teachers, the number of male teachers is 130 (52%) and the number of female teachers is 120 (48%). Among 250 teachers, the number of teachers from Urban School is 180 (72%) and the number of teachers from Rural School is 70 (28%). Among 250 teachers, the number of Government School teachers is 90 (36%) and the number of Private School teachers is 160 (64%).

**Table 1:** Sample Structure\_Type of School wise

Government School Teachers (90)		Private School Teachers (160)		Total
Male	Female	Male	Female	
61	29	69	91	250

**Table 2:** Sample Structure Location of School-wise

Rural School Teachers (70)		Urban School Teachers (180)		Total
Male	Female	Male	Female	
41	29	89	91	250

**Variables**

The present researchers had identified two types of variables for this research –

**A. Major Variables:** Teaching Effectiveness and Occupational Stress

**B. Demographical Variables**

- **Gender:** Male and Female
- **Location of School:** Urban and Rural
- **School Type:** Government and Private

**Tool Used**

Researchers have used two scales to conduct this study.

**a. Teacher's Occupational Stress Scale (TOSS)**

This scale is used for the study. This scale was developed by M. Sharma and S. Kaur. This scale was published in 2014. This scale consists 30 items divided into nine Dimensions— (I) Workload, (II) Role Ambiguity, (III) Groupism and External Pressure, (IV) Responsibility for Others, (V) Powerlessness, (VI) Work Relationships, (VII) Working Conditions, (VIII) Personal Inadequacy and (IX) Lack of Motivation. The scale was personally administered on 1800 teachers working in all types of educational institutions (both government and private) including primary schools, elementary schools, secondary schools, colleges.) The investigators adopted the test-retest method to find out the reliability of the scale. The test-retest reliability coefficient was worked out of be 0.801 with N = 80 and a time interval of 21 days. The scale was adequately validated with specific criteria. Content validity of the scale was tested against the judgment of 25 experts. The selection of the items was carried out on the basis of opinions of the experts as well as value of discriminative indices. The content validity is ensured as the items for which there has been 100 percent agreement amongst judges regarding their relevance to occupational stress and purpose of the scale were included. The face validity of the scale is found to be fairly high.

**b. Teaching Effectiveness Scale (TES)**

The researchers used Teaching Effectiveness Scale (TES), developed by Subhash Sarkar and Abhijit Deb, for their study. This scale comprised 40 items categorized into four dimensions: (I) Preparation, (II) Presentation, (III) Application, and (IV) Management. It was administered to 300 secondary school teachers. To assess the scale's reliability, the split-half (odd-even) method was employed, considering the gender categories of the teachers. The coefficient of correlation was computed based on the split-half data. The validity of the Teaching Effectiveness Scale was determined through face validity. The scale was presented to over ten experts in the field to evaluate the relevance of its test items. For item selection and elimination, the experts' unanimous agreement was considered as the criterion. Additionally, the validity of the scale was evaluated through item analysis on the initial draft, which involved identifying "f-differences" between the mean scores of the high-scoring group (top 30%) and the low-scoring group (bottom 30%). Based on the resulting 't' values, item selection and elimination decisions were made. Consequently, valid items were chosen for the final version of the scale. Hence, it can be confidently asserted that the Teaching Effectiveness Scale is indeed a valid measurement tool.

**Data Collection Procedure**

To carry out the research, data were gathered using a survey technique. A total of 25 schools located in North 24 Pgs, South 24 Pgs, and Kolkata districts were selected for the study. Teacher's Occupational Stress Scale (TOSS) and Teaching Effectiveness Scale (TES) were then administered to 250 teachers from these chosen schools. Each teacher was asked to provide responses based on their personal beliefs and thoughts, independently, without consulting with other teachers.

**Descriptive Statistics of raw data collected**

**Table 3:** Descriptive Statistics

Statistics	Occupational Stress	Teaching Effectiveness
Minimum	98	98
Maximum	131	185
Mean	105.57	144.75
Median	104.00	145.00
Mode	102	145
Std. Deviation	20.916	14.621
Skewness	0.283	0.021
Kurtosis	-0.516	0.095

**Analysis and Interpretation**

**1. Analysis of Data with respect to Objective 1**

**O1:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Male School Teachers at Secondary Level.

For fulfillment of the above-mentioned objective, one research hypothesis was formulated and tested which was as follows -

**Ho1:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Male School Teachers at Secondary Level.

**Table 4:** Correlation Matrix\_TES & TOSS\_Male School Teachers

		Teaching Effectiveness	Occupational Stress
Teaching effectiveness	Pearson Correlation	1	-.703*
	Sig. (2-tailed)		.031
	N	130	130
Occupational stress	Pearson Correlation	-.703*	1
	Sig. (2-tailed)	.031	
	N	130	130

(\* significant at 0.05 level of significance)

(TES = Teaching Effectiveness Scale and TOSS= Teacher's Occupational Stress Scale)

**Interpretation:** The analysis in the Table 4 shows that, correlation coefficient i.e. 'r' between score of TES and TOSS is 0.703 which is HIGH but NEGATIVE and p value is 0.031 (p< 0.05), which is significant at 0.05 level of significance. Hence, **Ho1** is rejected. So, it can be said that there exists a HIGH and NEGATIVE significant relationship between Teaching Effectiveness and Occupational Stress of Male School Teachers at Secondary Level.

**2. Analysis of Data with respect to Objective 2**

**O2:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Female School Teachers at Secondary Level.

For fulfillment of the above mentioned objective, one research hypothesis was formulated and tested which was as follows -

**Ho2:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Female School Teachers at Secondary Level.

**Table 5:** Correlation Matrix\_TES & TOSS\_Female School Teachers

		Teaching effectiveness	Occupational stress
Teaching effectiveness	Pearson Correlation	1	-.852*
	Sig. (2-tailed)		.002
	N	120	120
Occupational stress	Pearson Correlation	-.852*	1
	Sig. (2-tailed)	.002	
	N	120	120

(\* significant at 0.05 level of significance)

(TES = Teaching Effectiveness Scale and TOSS= Teacher's Occupational Stress Scale)

**Interpretation:** The analysis in the Table 5 shows that, correlation coefficient i.e. 'r' between score of TES and TOSS is 0.852 which is VERY HIGH but NEGATIVE and p value is 0.002 (p< 0.05), which is significant at 0.05 level of significance. Hence, **Ho2** is rejected. So, it can be said that there exists a VERY HIGH and NEGATIVE significant relationship between Teaching Effectiveness and Occupational Stress of Female School Teachers at Secondary Level.

**3. Analysis of Data with respect to Objective 3**

**O3:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Urban School Teachers at Secondary Level.

For fulfillment of the above mentioned objective, one research hypothesis was formulated and tested which was as follows -

**H03:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Urban School Teachers at Secondary Level.

**Table 6:** Correlation Matrix\_TES & TOSS\_Urban School Teachers

		Teaching effectiveness	Occupational stress
Teaching effectiveness	Pearson Correlation	1	-.682*
	Sig. (2-tailed)		.023
	N	180	180
Occupational stress	Pearson Correlation	-.682*	1
	Sig. (2-tailed)	.023	
	N	180	180

(\* significant at 0.05 level of significance)  
(TES = Teaching Effectiveness Scale and TOSS= Teacher's Occupational Stress Scale)

**Interpretation:** The analysis in the Table 6 shows that, correlation coefficient i.e. 'r' between score of TES and TOSS is 0.682 which is HIGH but NEGATIVE and p value is 0.023 (p<0.05), which is significant at 0.05 level of significance. Hence, **H03** is rejected. So, it can be said that there exists a HIGH and NEGATIVE significant relationship between Teaching Effectiveness and Occupational Stress of Urban School Teachers at Secondary Level.

**4. Analysis of Data with respect to Objective 4**

**O4:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Rural School Teachers at Secondary Level.

For fulfillment of the above-mentioned objective, one research hypothesis was formulated and tested which was as follows -

**H04:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Rural School Teachers at Secondary Level.

**Table 7:** Correlation Matrix\_TES & TOSS\_Rural School Teachers

		Teaching effectiveness	Occupational stress
Teaching effectiveness	Pearson correlation	1	-.577**
	Sig. (2-tailed)		.063
	N	70	70
Occupational stress	Pearson correlation	-.577**	1
	Sig. (2-tailed)	.063	
	N	70	70

(\*\* Not significant at 0.05 level of significance)  
(TES = Teaching Effectiveness Scale and TOSS= Teacher's Occupational Stress Scale)

**Interpretation:** The analysis in the Table 7 shows that, correlation coefficient i.e. 'r' between score of TES and TOSS is 0.577 which is MODERATE but NEGATIVE and p value is 0.063 (p>0.05), which is not significant at 0.05 level of significance. Hence, **H04** is not rejected. So, it can be said that there exists a MODERATE and NEGATIVE insignificant relationship between Teaching Effectiveness

and Occupational Stress of Rural School Teachers at Secondary Level.

**5. Analysis of Data with respect to Objective 5:**

**O5:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Government School Teachers at Secondary Level.

For fulfillment of the above mentioned objective, one research hypothesis was formulated and tested which was as follows -

**H05:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Government School Teachers at Secondary Level.

**Table 8:** Correlation Matrix\_TES & TOSS\_Government School Teachers

		Teaching effectiveness	Occupational stress
Teaching effectiveness	Pearson correlation	1	-.603*
	Sig. (2-tailed)		.046
	N	90	90
Occupational stress	Pearson correlation	-.603*	1
	Sig. (2-tailed)	.046	
	N	90	90

(\* significant at 0.05 level of significance)  
(TES = Teaching Effectiveness Scale and TOSS= Teacher's Occupational Stress Scale)

**Interpretation:** The analysis in the Table 8 shows that, correlation coefficient i.e. 'r' between score of TES and TOSS is 0.603 which is HIGH but NEGATIVE and p value is 0.046 (p<0.05), which is significant at 0.05 level of significance. Hence, **H05** is rejected. So, it can be said that there exists a MODERATE and NEGATIVE significant relationship between Teaching Effectiveness and Occupational Stress of Government School Teachers at Secondary Level.

**6. Analysis of Data with respect to Objective 6:**

**O6:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Private School Teachers at Secondary Level.

For fulfillment of the above-mentioned objective, one research hypothesis was formulated and tested which was as follows -

**H06:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Private School Teachers at Secondary Level.

**Table 9:** Correlation Matrix\_TES & TOSS\_Private School Teachers

		Teaching effectiveness	Occupational stress
Teaching effectiveness	Pearson correlation	1	-.883*
	Sig. (2-tailed)		.004
	N	160	160
Occupational stress	Pearson correlation	-.883*	1
	Sig. (2-tailed)	.004	
	N	160	160

(\* significant at 0.05 level of significance)  
(TES = Teaching Effectiveness Scale and TOSS= Teacher's Occupational Stress Scale)

**Interpretation:** The analysis in the Table 9 shows that, correlation coefficient i.e. ‘r’ between score of TES and TOSS is 0.883 which is VERY HIGH but NEGATIVE and p value is 0.004 (p<0.05), which is significant at 0.05 level of significance. Hence, H<sub>06</sub> is rejected. So, it can be said that there exists a VERY HIGH and NEGATIVE significant relationship between Teaching Effectiveness and Occupational Stress of Private School Teachers at Secondary Level.

**7. Analysis of Data with respect to Objective 7**

**O<sub>7</sub>:** To study the nature of the relationship existing between Teaching Effectiveness and Occupational Stress of Secondary School Teachers.

For fulfillment of the abovementioned objective, one research hypothesis was formulated and tested which was as follows -

**H<sub>07</sub>:** There is no significant relationship existing between Teaching Effectiveness and Occupational Stress of Secondary School Teachers.

**Table 10:** Correlation Matrix\_TES & TOSS\_Secondary School Teachers

		Teaching effectiveness	Occupational stress
Teaching effectiveness	Pearson correlation	1	-.723*
	Sig. (2-tailed)		.042
	N	250	250
Occupational stress	Pearson correlation	-.723*	1
	Sig. (2-tailed)	.042	
	N	250	250

(\* significant at 0.05 level of significance)  
(TES = Teaching Effectiveness Scale and TOSS= Teacher's Occupational Stress Scale)

**Interpretation:** The analysis in the Table 10 shows that, correlation coefficient i.e. ‘r’ between score of TES and TOSS is 0.723 which is HIGH but NEGATIVE and p value is 0.042 (p< 0.05), which is significant at 0.05 level of significance. Hence, H<sub>07</sub> is rejected. So, it can be said that there exists a HIGH and NEGATIVE significant relationship between Teaching Effectiveness and Occupational Stress of Secondary school teachers.

**Conclusion**

The correlation between teachers' occupational stress and teaching effectiveness is a significant and well-documented relationship in the field of education. The demands and pressures placed on educators can lead to stress, and when not effectively managed, it can undermine their ability to provide high-quality instruction and support to students. It is essential to recognize that addressing occupational stress among teachers is not just a matter of individual well-being; it is a fundamental requirement for maintaining the overall quality of education. Schools, administrators, and policymakers should take proactive measures to reduce stressors, promote teacher well-being, and provide the necessary resources and support to enable educators to perform at their best. By doing so, we can help teachers not only manage their stress but also enhance their teaching effectiveness, ultimately benefiting both educators and the students they serve.

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