

# Teaching Effectiveness of Secondary School Teachers in Relation to their Occupational Role Stress of Kargil and Leh

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## ABSTRACT

This research investigates the relationship between occupational role stress and teaching effectiveness among secondary school teachers in the Kargil and Leh regions. The study employed a correlational research design with a sample of 150 secondary school teachers. The Teacher Effectiveness Scale (modified from Puri and Gakhar) and Occupational Role Stress Scale (Pareek) were used as measurement instruments. Results indicate a significant negative correlation between occupational role stress and teaching effectiveness. Demographic variables such as gender, teaching experience, educational qualifications, and location were found to influence both occupational role stress and teaching effectiveness. Among the dimensions of occupational role stress, role overload, role ambiguity, and self-role distance emerged as significant predictors of teaching effectiveness. The findings highlight the importance of addressing occupational role stress to enhance teaching effectiveness in the challenging geographical and cultural contexts of Kargil and Leh.

**Keywords:** Occupational role stress, Teaching Effectiveness, Secondary school teachers, Ladakh, Kargil, Leh

## INTRODUCTION

Teaching is considered one of the most stressful professions in contemporary society. Teachers face numerous challenges that can lead to occupational role stress, potentially affecting their effectiveness in the classroom. This relationship becomes particularly relevant in regions like Kargil and Leh, where geographical isolation, harsh climatic conditions, limited resources, and unique cultural contexts create additional stressors for educators.

The regions of Kargil and Leh, located in the Union Territory of Ladakh in India, present a distinctive educational landscape. Secondary school teachers in these regions navigate high-altitude environments, extreme weather conditions, linguistic diversity, and often limited infrastructure. Understanding how occupational role stress affects teaching effectiveness in these challenging contexts is crucial for improving educational

outcomes and teacher well-being.

Occupational role stress refers to the strain experienced by individuals due to various aspects of their professional roles. For teachers, this may include role overload, role ambiguity, self-role distance, inter-role distance, role stagnation, role isolation, role erosion, personal inadequacy, and resource inadequacy. Teaching effectiveness, meanwhile, encompasses pedagogical competence, classroom management skills, professionalism, and personal qualities that contribute to student learning and development.

This research aims to explore the relationship between these two variables—occupational role stress and teaching effectiveness—within the specific context of Kargil and Leh's secondary schools. By understanding this relationship and identifying key demographic factors that influence both variables, this study seeks to contribute to the development of targeted interventions to enhance teaching effectiveness and reduce occupational role stress

among teachers in these regions.

### Review of Literature:

The relationship between occupational stress and teaching effectiveness has been the subject of numerous studies across various educational contexts. However, research specific to high-altitude regions with unique geographical and cultural characteristics remains limited.

Kyriacou (2001) defined teacher stress as the experience of unpleasant emotions resulting from aspects of the work as a teacher. His research indicated that high levels of stress negatively impact teaching quality and classroom performance. Similarly, Collie *et al.* (2012) found that teacher stress was negatively associated with teaching efficacy and job satisfaction.

In the Indian context, Sharma and Dhaiya (2012) reported significant negative correlations between occupational stress and teaching effectiveness among secondary school teachers in Haryana. Their findings suggested that teachers experiencing high stress levels demonstrated reduced classroom effectiveness, particularly in terms of classroom management and student engagement.

Specific to mountainous regions, Dolma (2015) conducted a study on teacher motivation in Ladakh schools, highlighting the unique challenges faced by teachers in these areas, including geographical isolation, resource constraints, and cultural factors. However, the study did not specifically examine the relationship between stress and teaching effectiveness.

Misra (2011) explored various dimensions of occupational role stress among teachers and found that role overload and resource inadequacy was the most significant stressors affecting teacher performance. These findings might have particular relevance to Kargil and Leh, where resource constraints are often pronounced.

Bhagat (2016) examined teaching effectiveness in relation to various psychological variables and found that personal and professional well-being significantly predicted teaching effectiveness. The study emphasized the importance of addressing psychological factors to enhance teacher performance.

While these studies provide valuable insights, there remains a gap in understanding the specific relationship between occupational role stress and teaching effectiveness in the unique context of Kargil and Leh. This research aims to address this gap by investigating

this relationship within the distinctive geographical, cultural, and educational landscape of these regions.

Sharma, R. and Sharma, M. (2023) conducted a study on “*Occupational Role Stress and Teaching Effectiveness Among Secondary School Teachers in Himachal Pradesh.*” They found that occupational role stress significantly affects teaching effectiveness, with workload and role conflict being the major contributing factors. Female and government school teachers experienced higher stress levels, leading to reduced classroom performance. The study recommended institutional support and training programs to help manage stress and improve teacher effectiveness.

Meher, R. and Dash, S. (2024) conducted a comprehensive study titled “Occupational Stress and Its Correlates with Teaching Efficacy Among Secondary School Teachers: A Study in Odisha.” The researchers aimed to explore the relationship between occupational role stress and teaching effectiveness among secondary school teachers in the state of Odisha, India. A sample of 300 secondary school teachers was selected using stratified random sampling, and data were collected through standardized tools: the Occupational Role Stress Scale (ORSS) and the Teacher Efficacy Scale (TES). The findings revealed a significant negative correlation between occupational role stress and teaching efficacy, indicating that as stress levels increased, the perceived ability of teachers to manage classrooms, deliver content effectively, and motivate students decreased. Among the various dimensions of role stress, role conflict and role overload were found to be the most influential factors impairing teaching effectiveness. The study also highlighted differences based on gender, school type, and teaching experience, with government school teachers and those with less experience reporting higher stress levels and lower efficacy.

### Objectives :

The following objectives were framed for the study:

1. To find out the relationship between occupational role stress and teaching effectiveness among secondary school teachers in Kargil and Leh.
2. To assess how demographic variables (gender, teaching experience, educational qualifications, and location) influence occupational role stress and teaching effectiveness
3. To find out which dimensions of occupational role stress significantly predict teaching

effectiveness.

### Hypotheses :

Based on the objectives and literature review, the following hypotheses were formulated:

1. There is a significant negative relationship between occupational role stress and teaching effectiveness among secondary school teachers in Kargil and Leh.
2. There is significant difference in occupational role stress of teachers based on their gender.
3. There is significant difference in teaching effectiveness of teachers based on their gender.
4. There is significant difference in occupational role stress of teachers based on their teaching experience.
5. There is significant difference in teaching effectiveness of teachers based on their teaching experience.
6. There is significant difference in occupational role stress of teachers based on their educational qualification.
7. There is significant difference in teaching effectiveness of teachers based on their educational qualification.
8. There is a significant difference in occupational role stress of teachers based on their Location (Kargil/Leh).
9. There is a significant difference in teaching effectiveness of teachers based on their Location (Kargil/Leh).
10. There is certain dimensions of occupational role stress significantly and negatively predict teaching effectiveness among secondary school teachers.

## METHODOLOGY

### Research Design:

The study employed a correlational research design to investigate the relationship between occupational role stress and teaching effectiveness among secondary school teachers.

### Sample:

The sample consisted of 150 secondary school teachers (78 males and 72 females) randomly selected from 25 secondary schools across Kargil and Leh regions. The sample distribution is presented in Table 1.

### Tools Used:

**1. Teacher Effectiveness Scale:** A modified version of the Teacher Effectiveness Scale developed by Shallu Puri and S. C. Gakhar was used. The scale consists of 69 items divided into two teaching aspects:

- o Pedagogical Competence and Classroom Management
- o Professionalism and Personal Qualities

The reliability coefficient (Cronbach's alpha) for the modified scale was 0.89.

**2. Occupational Role Stress Scale (ORS):** Developed by Uday Pareek, this scale measures ten dimensions of role stress:

- o Self-role distance
- o Inter-role distance
- o Role stagnation
- o Role ambiguity
- o Role overload
- o Role isolation
- o Role erosion
- o Role expectation conflict
- o Personal inadequacy
- o Resource inadequacy

The scale contains 50 items, with five items for each dimension. The reliability coefficient (Cronbach's alpha) for the scale was 0.86.

### Data Collection Procedure:

After obtaining necessary permissions from school authorities, the researcher personally visited the selected schools and administered the questionnaires to the participating teachers. Clear instructions were provided, and confidentiality was assured. The data collection was conducted over a period of three months during the academic year 2023-2024.

### Statistical Analysis:

The collected data were analyzed using:

- Pearson's correlation coefficient to determine the relationship between occupational role stress and teaching effectiveness
- Independent samples t-test to compare groups based on gender and location.
- Pearson's Correlation Coefficient (r): To determine the relationship between years of teaching experience and both teaching effectiveness and occupational role stress.

**Table 1: Demographic Distribution of the Sample (N=150)**

Variable	Category	N	Percentage
Gender	Male	78	52%
	Female	72	48%
Teaching Experience	0-5 years	42	28%
	6-10 years	53	35.3%
	11-15 years	31	20.7%
	More than 15 years	24	16%
Educational Qualification	Bachelor's degree	35	23.3%
	Master's degree	98	65.3%
	M.Phil/Ph.D	17	11.3%
Location	Kargil	73	48.7%
	Leh	77	51.3%

- One-way ANOVA to analyze differences based on teaching experience and educational qualifications
- Multiple regression analysis to identify the dimensions of occupational role stress that significantly predict teaching effectiveness

## RESULTS AND DISCUSSION

### Correlation between Occupational Role Stress and Teaching Effectiveness:

Table 2 shows a significant negative correlation between overall occupational role stress and teaching effectiveness ( $r = -0.642$ ,  $p < 0.01$ ). Among the dimensions of occupational role stress, role overload ( $r = -0.614$ ), role ambiguity ( $r = -0.595$ ), and resource inadequacy ( $r = -0.587$ ) showed the strongest negative correlations with teaching effectiveness.

**Table 2: Correlation between Occupational Role Stress and Teaching Effectiveness**

Variables	Teaching Effectiveness
Overall Occupational Role Stress	-0.642**
Self-role distance	-0.538**
Inter-role distance	-0.476**
Role stagnation	-0.427**
Role ambiguity	-0.595**
Role overload	-0.614**
Role isolation	-0.485**
Role erosion	-0.412**
Role expectation conflict	-0.523**
Personal inadequacy	-0.541**
Resource inadequacy	-0.587**

\*\* $p < 0.01$

The hypothesis No. 1 which reads as, "There is a significant negative relationship between occupational role

stress and teaching effectiveness among secondary school teachers in Kargil and Leh" stands accepted.

### Impact of Demographic Variables on Occupational Role Stress and Teaching Effectiveness:

Table 3 indicates that female teachers experienced significantly higher occupational role stress compared to male teachers ( $t = 2.54$ ,  $p < 0.05$ ). However, the difference in teaching effectiveness between male and female teachers was not statistically significant ( $t = 1.92$ ,  $p = 0.057$ ).

**Table 3 : Gender Differences in Occupational Role Stress and Teaching Effectiveness**

Variable	Gender	N	Mean	SD	t-value	p-value
Occupational Role Stress	Male	78	112.64	18.32	2.54	0.012*
	Female	72	121.37	20.15		
Teaching Effectiveness	Male	78	248.71	26.45	1.92	0.057
	Female	72	240.18	28.64		

\* $p < 0.05$

The hypothesis No. 2 which reads as, "There is a significant difference in occupational role stress of teachers based on their gender" stands accepted.

The hypothesis No. 3 which reads as, "There is a significant difference in teaching effectiveness of teachers based on their gender" stands rejected.

Post-hoc analysis (Tukey's HSD) revealed that teachers with more than 15 years of experience had significantly lower occupational role stress and higher teaching effectiveness compared to those with less experience (Table 4).

The hypothesis No. 4 which reads as, "There is a significant difference in occupational role stress of teachers based on their teaching experience" stands accepted.

**Table 4 : Impact of Teaching Experience on Occupational Role Stress and Teaching Effectiveness**

Variable	Source of Variation	Sum of Squares	df	Mean Square	F	p-value
Occupational Role Stress	Between Groups	12548.63	3	4182.88	11.42	0.000**
	Within Groups	53452.17	146	366.11		
Teaching Effectiveness	Between Groups	16325.84	3	5441.95	7.84	0.000**
	Within Groups	101328.59	146	694.03		

\*\*p &lt; 0.01

The hypothesis No. 5 which reads as, “There is a significant difference in teaching effectiveness of teachers based on their teaching experience” stands accepted.

Post-hoc analysis showed that teachers with M.Phil/ Ph.D. qualifications had significantly lower occupational role stress and higher teaching effectiveness compared to teachers with Bachelor’s or Master’s degrees (Table 5).

The hypothesis No. 6 which reads as, “There is a significant difference in occupational role stress of teachers based on their teaching experience” stands accepted.

The hypothesis No. 7 which reads as, “There is a significant difference in teaching effectiveness of teachers based on their teaching experience” stands accepted.

Table 6 indicates that teachers in Kargil experienced significantly higher occupational role stress ( $t = 3.42$ ,  $p < 0.01$ ) and lower teaching effectiveness ( $t = -3.12$ ,  $p < 0.01$ ) compared to teachers in Leh.

The hypothesis No. 8 which reads as, “There is a significant difference in occupational role stress of teachers based on their Location (Kargil/Leh)” stands accepted.

The hypothesis No. 9 which reads as, “There is a significant difference in teaching effectiveness of teachers based on their Location (Kargil/Leh)” stands accepted.

### **Regression Analysis: Dimensions of Occupational Role Stress as Predictors of Teaching Effectiveness:**

The regression model explained 52.3% of the variance in teaching effectiveness ( $R^2 = 0.523$ ). Among the ten dimensions of occupational role stress, role overload ( $\beta = -0.26$ ,  $p < 0.01$ ), role ambiguity ( $\beta = -0.23$ ,  $p < 0.01$ ), resource inadequacy ( $\beta = -0.21$ ,  $p < 0.01$ ), and self-role distance ( $\beta = -0.19$ ,  $p < 0.05$ ) emerged as significant predictors of teaching effectiveness (Table 7).

The hypothesis No. 9 which reads as, “There is certain dimensions of occupational role stress significantly and negatively predict teaching effectiveness among secondary school teachers” stands accepted.

The present study aimed to investigate the relationship between occupational role stress and teaching effectiveness among secondary school teachers in Kargil and Leh, and to examine the influence of demographic variables on these constructs. The findings revealed several important insights.

**Table 5 : Impact of Educational Qualifications on Occupational Role Stress and Teaching Effectiveness**

Variable	Source of Variation	Sum of Squares	df	Mean Square	F	p-value
Occupational Role Stress	Between Groups	4236.52	2	2118.26	5.27	0.006**
	Within Groups	59145.68	147	402.35		
Teaching Effectiveness	Between Groups	8426.37	2	4213.19	5.63	0.004**
	Within Groups	109921.47	147	747.76		

\*\*p &lt; 0.01

**Table 6 : Location Differences in Occupational Role Stress and Teaching Effectiveness**

Variable	Location	N	Mean	SD	t-value	p-value
Occupational Role Stress	Kargil	73	123.41	19.67	3.42	0.001**
	Leh	77	111.86	18.24		
Teaching Effectiveness	Kargil	73	236.18	27.31	3.12	0.002**
	Leh	77	251.36	26.12		

\*\*p &lt; 0.01

**Table 7 : Multiple Regression Analysis - Dimensions of Occupational Role Stress Predicting Teaching Effectiveness**

Predictors	B	SE	Beta	t	p-value
(Constant)	342.16	15.27		22.41	0.000**
Self-role distance	-2.18	0.84	-0.19	-2.60	0.010*
Inter-role distance	-1.06	0.79	-0.09	-1.34	0.182
Role stagnation	-0.84	0.82	-0.07	-1.02	0.309
Role ambiguity	-2.73	0.81	-0.23	-3.37	0.001**
Role overload	-3.12	0.83	-0.26	-3.76	0.000**
Role isolation	-1.14	0.80	-0.10	-1.43	0.156
Role erosion	-0.76	0.82	-0.06	-0.93	0.354
Role expectation conflict	-1.37	0.84	-0.12	-1.63	0.105
Personal inadequacy	-1.25	0.83	-0.11	-1.51	0.134
Resource inadequacy	-2.52	0.82	-0.21	-3.07	0.003**

R = 0.723, R<sup>2</sup> = 0.523, Adjusted R<sup>2</sup> = 0.489, F(10,139) = 15.27, p < 0.01

\*p < 0.05, \*\*p < 0.01

First, the significant negative correlation between occupational role stress and teaching effectiveness ( $r = -0.642$ ) confirms the first hypothesis and aligns with previous research by Kyriacou (2001) and Sharma and Dhaiya (2012). This relationship indicates that as teachers experience higher levels of occupational role stress, their teaching effectiveness tends to decrease. This finding is particularly relevant in the context of Kargil and Leh, where teachers face unique stressors related to geographical isolation, harsh climate, and limited resources.

The analysis of specific dimensions of occupational role stress revealed that role overload, role ambiguity, and resource inadequacy had the strongest negative associations with teaching effectiveness. Role overload, characterized by excessive work demands and time constraints, appeared to be particularly detrimental to teaching effectiveness. This finding resonates with Misra's (2011) research, which identified role overload as a significant stressor affecting teacher performance. In the context of Kargil and Leh, where schools may be understaffed and teachers often handle multiple responsibilities, role overload emerges as a critical concern.

Role ambiguity, reflecting unclear expectations and guidelines, also significantly predicted reduced teaching effectiveness. This finding suggests that clear communication of roles, responsibilities, and expectations is essential for enhancing teaching effectiveness in these regions.

Resource inadequacy emerged as another significant predictor of teaching effectiveness, which is particularly relevant in the resource-constrained environments of

Kargil and Leh. Limited access to teaching materials, technology, and professional development opportunities may contribute to stress and reduced effectiveness among teachers in these regions.

Regarding demographic variables, the finding that female teachers experienced significantly higher occupational role stress supports the second hypothesis and aligns with previous research suggesting that female teachers often navigate additional stressors related to work-life balance and societal expectations (Antoniou *et al.*, 2013). However, the non-significant gender difference in teaching effectiveness suggests that despite experiencing higher stress, female teachers maintain comparable levels of effectiveness to their male counterparts.

The significant influence of teaching experience on both occupational role stress and teaching effectiveness supports the third hypothesis. Teachers with more than 15 years of experience demonstrated lower stress and higher effectiveness, suggesting that experience may provide teachers with coping strategies and pedagogical skills that enhance their resilience and effectiveness. This finding has implications for mentorship programs that could leverage the expertise of experienced teachers to support their less experienced colleagues.

The finding that teachers with higher educational qualifications (M.Phil/Ph.D) exhibited lower occupational role stress and higher teaching effectiveness supports the fourth hypothesis. Advanced education may equip teachers with deeper subject knowledge, enhanced pedagogical skills, and greater confidence in their teaching abilities, contributing to reduced stress and improved effectiveness.

The significant difference in occupational role stress and teaching effectiveness between teachers in Kargil and Leh supports the fifth hypothesis and highlights the importance of considering regional variations. Teachers in Kargil experienced higher stress and lower effectiveness compared to those in Leh, suggesting potential differences in working conditions, resources, or cultural contexts between these regions. This finding underscores the need for context-specific interventions rather than one-size-fits-all approaches to enhancing teaching effectiveness and reducing stress.

The regression analysis provided support for the sixth hypothesis, identifying role overload, role ambiguity, resource inadequacy, and self-role distance as significant predictors of teaching effectiveness. These findings offer valuable insights for developing targeted interventions to enhance teaching effectiveness by addressing specific dimensions of occupational role stress.

### Conclusion:

This study investigated the relationship between occupational role stress and teaching effectiveness among secondary school teachers in Kargil and Leh. The findings revealed a significant negative relationship between these variables, indicating that higher levels of occupational role stress are associated with reduced teaching effectiveness. Demographic variables, including gender, teaching experience, educational qualifications, and location, were found to influence both occupational role stress and teaching effectiveness.

Among the dimensions of occupational role stress, role overload, role ambiguity, resource inadequacy, and self-role distance emerged as significant predictors of teaching effectiveness. These findings highlight the importance of addressing these specific dimensions of stress to enhance teaching effectiveness in the challenging contexts of Kargil and Leh.

The study contributes to the understanding of the complex relationship between occupational role stress and teaching effectiveness in high-altitude regions with unique geographical, cultural, and educational challenges. The findings have implications for educational policies and interventions aimed at improving teaching effectiveness and teacher well-being in these regions.

### Educational Implications:

1. Educational authorities should review and potentially redistribute teacher workloads to

reduce role overload. This may involve hiring additional teachers, providing administrative support, or streamlining administrative tasks to allow teachers to focus more on teaching.

2. Schools should develop and communicate clear job descriptions, expectations, and guidelines to reduce role ambiguity. Regular performance feedback and supportive supervision can also help teachers understand their roles better.
3. Efforts should be made to improve the availability of teaching resources, materials, and technology in schools across Kargil and Leh. Budget allocations should prioritize essential teaching resources, particularly in more resource-constrained areas.
4. Regular, context-specific professional development programs should be offered to help teachers enhance their pedagogical skills and coping strategies. These programs should be accessible to all teachers, regardless of their location.
5. Schools should establish mentorship programs where experienced teachers can guide and support less experienced colleagues, sharing their knowledge and coping strategies.
6. Schools should implement stress management programs and counseling services to help teachers cope with occupational stress. These may include workshops on time management, mindfulness, and work-life balance.

### REFERENCES

- Antoniou, A. S., Polychroni, F. and Vlachakis, A. N. (2013). Gender and age differences in occupational stress and professional burnout between primary and high-school teachers in Greece. *J. Managerial Psychol.*, **28**(7) : 665-689.
- Bhagat, P. (2016). Relationship between teaching effectiveness and certain psychological variables of secondary school teachers. *Internat. J. Education & Psychological Research*, **5**(1) : 35-39.
- Collie, R. J., Shapka, J. D. and Perry, N. E. (2012). School climate and social-emotional learning: Predicting teacher stress, job satisfaction, and teaching efficacy. *Journal of Educational Psychology*, **104**(4) : 1189-1204.
- Dolma, S. (2015). Motivation levels among teachers in Ladakh: A study. *International Journal of Educational Research*

- & Development*, 4(2) : 41-49.
- Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review*, 53(1) : 27-35.
- Misra, P. K. (2011). Dimensions of teacher effectiveness. *The Journal of Education*, 2(1) : 45-51.
- Pareek, U. (1983). Organizational role stress scale manual. Ahmedabad: Navin Publications.
- Puri, S. and Gakhar, S. C. (2010). A study of teacher effectiveness in relation to school organizational climate. *Journal of Educational Research & Extension*, 47(1) : 16-25.
- Sharma, R. D. and Dhaliya, P. (2012). Occupational stress and teaching effectiveness of secondary school teachers. *International Journal of Education and Management Studies*, 2(3) : 288-295.
- Singh, S. (2015). Occupational stress among teachers: A comparative study of public and private schools. *International Journal of Education and Management Studies*, 5(4) : 315-320.
- Srivastava, A. K. and Singh, A. P. (2014). Manual of the occupational stress index. Varanasi: Manovigyanik Parikshan Sansthan.

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