Antecedents and Consequences of English Language Teachers’ Stress in Engineering College

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Abstract:
This study investigates the impact of various antecedents of stress on teaching performance of English language teachers in engineering colleges. Data were collected using questionnaire methods. The researchers adopted convenience sampling method for data collection. The study was conducted during a period of six months from June 2014 to November 2014. This study identified five dimensions of stress. They are: Time Pressure, Work Load, Career Progress, Rewards and Role Conflict. The highly perceived antecedent of stress by the English Language teachers is career progress. This study also confirms that there is a significant impact on Time Pressure, Workload, Career Progress, and Role Conflict on Teaching Performance. The identified dimensions may help the policy makers in general, college management in particular to frame suitable policies regarding stress management of English language teachers.

Key Words: Role Conflict, Career Progress, Rewards, Time Pressure, Work Load.

Introduction:
Teachers are the most valued assets of any country. They impart knowledge and skills to the students, who after the completion of studies join the various sectors of the country and start contributing towards the development of the country's economy (Anwar Khan et al, 2012). With the onset of liberalization in general, privatization in particular, several changes takes place throughout the world and the educational sector is not an exception. In the changing economic scenario, teachers working in different educational institutions are under stress on account of high expectation of parents, students and college administration. Stress is a psychological construct that people may experience on a daily basis (Quick et al., 1997). Stress can be defined as a ‘Non-specific result of any demand upon the body (Selye, 1980) or a perceptual phenomenon arising from a comparison between the demand on the person and his ability to cope (Cox, 1983). People in stressful environment generally face unachievable job demands (Gmelch, 1982), experience different bodily reactions, such as headache, back pain or even thirst (Carr and Goudas, 1999), and have various subjective feelings such as dissatisfaction, unhappiness, sadness and depression (Freudenberger, 1983).

The significance of the effects of occupational stress in general has prompted various studies aimed at identifying the causes of stress in various disciplines including nurses (Dailey et al, 1986), Managers (Davidson and Cooper, 1986) and teachers (Byosiere, 1988). These research studies revealed that stress can be related to physical condition (Braham, 1994), Organizational Culture (Cooper, 2001; Moorhead and Griffin, 2001); Interpersonal Conflict (Toates, 1995; Cooper, 2001), Job nature (Caplan and Jones, 1975; Matteson and Invancevich, 1987), Personal Characteristics (Caplan and Jones, 1975; cooper and Roden, 1985; Hurrell, 1985; Dailey et al., 1986; Caudron, 1998; Bliese and Britt, 2001).

Numerous research has been carried out on stress and performance such as managers (Therese, 2001), Police Officers (Tang and Hammontree, 1992) and students (Wolk and Bloom, 1978). Even though too much stress has a negative impact on human behavior, it was also found that insufficient stress leads to boredom, a lack of concentration, and lack of initiative / motivation to make the best possible effort (Gmelch and Chan, 1994).

In general teachers are expected to play different roles in the educational institution. Several studies also found that role stress has a negative impact on Job Satisfaction, Organizational Commitment, and Employee Performance (Babin& Boles, 1996; Goolsby, 1992; Sagar, 1994).

Stress is necessary for a person’s growth, development and performance both at work and at home. (Quick and Quick, 1984). Three factors will determine whether a situation is placing sufficient
demands on a person to result in stress (Beehr and Bhagat, 1985). These three factors are importance, uncertainty and duration. The individual symptoms of stress may be categorized into three types: Physiological, Psychological and Behavioural (Beehr and Newman, 1978). The more frequently the person is in a stress response mode, the more susceptible that individual is to fatigue, disease, disability, aging and death (Matteson and Ivancevich, 1987).

**Review of Literature:**

Employee stress has been given much attention by management researchers since it has perceived consequences for both individuals and organizations (Lee & Ashforth, 1993; Meyerson, 1988). At the organization level, stress can cause problems for employers such as high rates of employee turnover, low levels of employee commitment, increased absenteeism and job satisfaction (Jackson, Schwab & Schuler, 1986; Lackritz, 2004; Leiter & Maslach, 1988). Blix et al., (1994) reported that female university academic staff experience more stress symptoms compared with male colleagues; on the other hand Martocchio and O’ Leary (1989) identified that there were no differences in experienced stress between males and females in a large school system. McCormick (1996) found that experienced academic staff reported less stress than inexperienced individuals.


Several studies have been conducted with regard to demographic factors and its influence on stress (Beena and Poduval, 1992; Akinnusi, 1994; Shen et al., 2005; Bhatia et al., 2008; and Fernandes et al., 2009).

Although several studies has been conducted with regard to college teachers’ stress, only limited study has been conducted with regard to English language teachers working in engineering college, and a few of the studies have examined the antecedents of stress and its impacts on teaching performance. Therefore in order to fill the gap the researchers intend to study the antecedents and consequences of stress factors of the English language teachers.

**FIGURE – 1: PROPOSED RESEARCH MODEL**
Objectives of the Study:
Based on the proposed model, the objective of the study is confined
1. To identify various antecedents of stress factors of English language teachers working in Engineering Colleges.
2. To reveal the views of English language teachers on various dimensions of the stress factors.
3. To evaluate the impact of different dimensions of stress on teaching performance in Engineering Colleges.

Research Methodology:
The scope of the study is confined only to the English language teachers working in Engineering Colleges in Coimbatore, Erode, Salem and Namakkal districts of Tamil Nadu. From each district 20 engineering colleges were identified by the researchers. Therefore the total numbers of engineering colleges come to 80 in number. From each identified colleges, 5 faculty members of different designation of English language teachers were selected. Therefore the total number of sample size is 400. The study was conducted during the period of 6 months from June 2014 to November 2014. The researchers used questionnaire method for collecting data from the respondents. The questionnaires consist of three parts. The first part of the questionnaire consists of the demographic profile of English language teachers, the second part of the questionnaire consists of variables relating to the antecedents of stress and third part of the questionnaire consists of teaching performance. The English language teachers were asked to answer the questionnaire at five point scale. The researchers collected the data by sending questionnaires to the respondents by mail.

The researchers adopted convenience sampling method for collecting data. Even though several attempts have been made by the researchers, the researchers were able to obtain only 117 filled-in questionnaires. Therefore the response rate of the questionnaire is 29.25 percent. Before administering the questionnaire to the respondents, content validity of the questionnaire is verified by constituting a panel which consists of one English language teacher and one faculty from Human Resource Management specialization handling stress management for the past 10 years. Prior to this, a pilot study was conducted for the respondents. Based on the feedback received from the pilot study suitable changes have been made in the existing questionnaire to suit the requirement of the present study.

Proposed Hypothesis:
In order to study the impact of various antecedents of stress and teaching performance of English language teachers, the following set of null hypothesis was proposed.
H01: Time pressure dimensions will have no significant impact on teaching performance in Engineering Colleges
H02: Work load dimensions will have no significant impact on teaching performance in Engineering Colleges
H03: Career Progress will have no significant impact on teaching performance in Engineering Colleges
H04: Rewards will have no significant impact on teaching performance in Engineering Colleges
H05: Role conflict will have no significant impact on teaching performance in Engineering Colleges

Instrument Development:
The variables relating to the present study are drawn from the previous works (Thommas Ng et al., 2005), Linda lee Larson (2004).

Descriptive Statistics:
A descriptive analysis of the data revealed that, 52 percent of the English language teachers were male. Around 59 percent of the language teachers were aged between 41-50 years. The sample consists of 38 percent of the respondents who possessed Ph.D Degree. Approximately, 39.3 percent of the English language teachers having a working experience of 7 to 10 years and 32 percent of the respondents indicated that working in college for more than 5 years. Furthermore, an analysis indicated
that 79 percent of the respondents are hailing from nuclear families. The monthly income of the teachers is between Rs. 25,000/- and 35,000/- which constitutes to 33 percent.

Table No: 1 - Reliability of the Instrument

<table>
<thead>
<tr>
<th>S.No</th>
<th>Antecedents of Stress Factors (ASF)</th>
<th>No of original statements</th>
<th>No of variables retained</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Time Pressure</td>
<td>5</td>
<td>5</td>
<td>.762</td>
</tr>
<tr>
<td>2</td>
<td>Work Load</td>
<td>5</td>
<td>5</td>
<td>.771</td>
</tr>
<tr>
<td>3</td>
<td>Career Progress</td>
<td>5</td>
<td>5</td>
<td>.812</td>
</tr>
<tr>
<td>4</td>
<td>Rewards</td>
<td>6</td>
<td>6</td>
<td>.775</td>
</tr>
<tr>
<td>5</td>
<td>Role Conflict</td>
<td>5</td>
<td>5</td>
<td>.794</td>
</tr>
</tbody>
</table>

As shown in the Table No:1, the reliability co-efficient were 0.812 for the career Progress, 0.794 for role conflict, 0.775 for rewards, 0.771 for work load, 0.762 for Time Pressure. All reliability co-efficient thus executed the threshold limit of 0.7 (Nunnally, 1978)

A principal components factor analysis with varimax rotation was performed on the 26 variables that assessed the various antecedents of English language teachers’ dimensions. The statistical test result (KMO = 0.756, Bartlett Test of Sphericity = 671.478, Significance = 0.000) indicated that the factor analysis method was appropriate. Thus, the 26 items were reduced to five dimensions with Eigen values greater than 1.0 which were retained for subsequent analysis. These are, Time Pressure, Work Load, Career Progress, Rewards and Role Conflict. The antecedents of stress dimensions, number of variables included, Eigenvalue and percentage of variance explained by the factor is exhibited in Table No: 2

Table No:2 – Antecedents of English Language Teachers in Engineering College

<table>
<thead>
<tr>
<th>S.No</th>
<th>Antecedents of Stress Factor (ASF)</th>
<th>No of Variable Included</th>
<th>Eigen Value</th>
<th>Percentage of Variance Explained</th>
<th>Cumulative Percentage of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Time Pressure</td>
<td>5</td>
<td>6.794</td>
<td>17.266</td>
<td>17.266</td>
</tr>
<tr>
<td>2</td>
<td>Work Load</td>
<td>5</td>
<td>1.957</td>
<td>12.423</td>
<td>29.689</td>
</tr>
<tr>
<td>3</td>
<td>Career Progress</td>
<td>5</td>
<td>1.706</td>
<td>11.380</td>
<td>41.069</td>
</tr>
<tr>
<td>4</td>
<td>Rewards</td>
<td>6</td>
<td>1.307</td>
<td>10.517</td>
<td>51.586</td>
</tr>
<tr>
<td>5</td>
<td>Leadership Style</td>
<td>5</td>
<td>1.326</td>
<td>8.375</td>
<td>59.961</td>
</tr>
</tbody>
</table>

KMO Measures of sample adequacy = 0.756

Bartlett’s Test Sphericity Chi- Square Value = 671.478

The most important antecedents of English language teachers’ stress are ‘Time Pressure’ since its Eigen value and the percent of variation explained by these factors are 6.794 and 17.266 percent respectively. The second factors and third factors identified by the factor analysis are ‘Work Load’ and ‘Career Progress’, since their respective Eigen value are 1.957 and 1.706. These two factors consist of five variables each. The percent of variance explained by these two factors are 12.423 and 11.380 percent respectively. A fourth dimension represented ‘Rewards’ and fifth factor represented “Leadership Style’. The percent of variation explained by these two factors are 10.517 and 8.375 percent respectively.
The highly perceived antecedents of stress among English language faculty are ‘Reward’ and “Career Progress’ since its respective mean score is 3.6944 and career progress respectively. The higher fluctuation is identified in the perception of the ‘Leadership Style’ since their respective co-efficient of variation is 32.138 percent. Leadership Style scored lowest mean score (2.7379) and lesser fluctuation is seen in the perception of ‘Time Pressure’ since its respective co-efficient of variation is 19.199 percent.

**Impact of antecedents of English language teachers on the teaching Performance:**

In order to study the various antecedents of English language teachers on the teaching performance, multiple regression analysis has been administered. The fitted regression model is

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e \]

where

- \( Y \) = score on teaching performance of English language teacher.
- \( X_1 \) = Score on Time Pressure.
- \( X_2 \) = Score on Work Load.
- \( X_3 \) = Score on Career progress.
- \( X_4 \) = Score on Rewards.
- \( X_5 \) = Score on Leadership Style.
- \( b_1, b_2, \ldots , b_5 \) = Regression Co-efficient of Independent Variables.
- \( a \) = Intercept and
- \( e \) = Error Term

The impact of various antecedents of English language teachers on the teaching performance has been measured among the male teachers, female teachers and also for pooled data. The results are given in the Table No: 4.

**Table No: 4 – Impact of Antecedents of English Language Teachers’ Stress on Teaching Performance**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Antecedents of Stress (ASF)</th>
<th>Male Faculty</th>
<th>Female Faculty</th>
<th>Pooled Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Time Pressure</td>
<td>.272</td>
<td>.354*</td>
<td>.313*</td>
</tr>
<tr>
<td>2</td>
<td>Work Load</td>
<td>.428*</td>
<td>.422*</td>
<td>.400*</td>
</tr>
<tr>
<td>3</td>
<td>Career Progress</td>
<td>.369*</td>
<td>.146</td>
<td>.246*</td>
</tr>
<tr>
<td>4</td>
<td>Rewards</td>
<td>.186</td>
<td>.038</td>
<td>.083</td>
</tr>
<tr>
<td>5</td>
<td>Role Conflict</td>
<td>.246</td>
<td>.157</td>
<td>.192*</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>.978</td>
<td>.393</td>
<td>.620</td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>.701</td>
<td>.793</td>
<td>.763</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td></td>
<td>.658</td>
<td>.778</td>
<td>.752</td>
</tr>
<tr>
<td>F Statistics</td>
<td></td>
<td>16.415</td>
<td>53.546</td>
<td>71.343</td>
</tr>
</tbody>
</table>

*Significant at five percent level

A unit increase in the workload dimension results in an increase in teaching performance among the male teachers by 0.428 units. The changes in the various dimensions of stress explain the changes in teaching performance to an extent of 70.01 percent. Among the female teachers, a unit increase in workload, time pressure results in an increase in teaching performance by 0.422, and 0.354...
units respectively. The $R^2$ indicated in changes in the antecedents of stress explain the changes in teaching performance to an extent of 79.3 percent.

The analysis of pooled data reveals that the significantly influencing antecedents of stress are Work Load, Time Pressure, Career Progress and Role Conflict since their regression co-efficient is significant at five percent level. A unit increase in the above said antecedents of stress results in an increase in teaching performance by 0.400, 0.313, 0.246, 0.192 units respectively. The changes in the antecedents of stress explain the changes in teaching performance to an extent of 76.3 percent.

**Conclusion:**

The study identified five dimensions of various antecedents of English language teachers’ stress. They are: Time Pressure, Work Load, Career Progress, rewards and Role Conflict. The included variable in antecedents of stress dimensions explained to a reliable extent. The highly perceived antecedent of stress by the English language teachers is Career Progress. The study also proved that Time Pressure, Work Load, Career Progress and Role Conflict dimensions will have a significant impact on teaching performance of English language teachers in Engineering College. Therefore, this study rejects Ho1, Ho2, Ho3 and Ho5. Furthermore, this study proves that Rewards will have no significant impact on teaching performance.

**Limitations and scope for Further Research:**

This study was conducted only in Coimbatore, Erode, Salem and Namakkal districts of Tamil Nadu. Therefore, this finding cannot be generalized to other service sectors. Furthermore, this study considers only the limited number of variables for the study. In future, a number of variables can be included. This study examines the various antecedents of stress and its impact on teaching performance. The same study can be conducted to examine the influence of stress on Job Satisfaction, Morale of the employees and Turnover Intention. This study considers only the Engineering College language teachers. In future, comparative study can also be conducted on the stress factors between the English Language teachers of Arts and Science Colleges and Engineering colleges.

**References:**


