AN INVESTIGATION INTO THE RELATIONSHIP AMONG TEACHER'S OCCUPATIONAL STRESS, JOB SATISFACTION, WORK VALUES AND PUPIL CONTROL IDEOLOGY

ABSTRACT OF THE THESIS SUBMITTED FOR THE AWARD OF THE DEGREE OF

Doctor of Philosophy IN EDUCATION

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ABSTRACT

Introduction

Teaching is always considered as one of the most stressful professions. With the educational reform, teachers’ occupational stress has become more and more salient during recent years. Teachers working within the secondary school system confront multiple stressors on a daily basis that result in varying levels of occupational stress. Factors such as poor student behavior, ranging from low levels of student motivation to misbehavior, and poor relationships with administration and colleagues can lead to occupational stress. In some cases, teachers contend with poor working conditions that include lack of resources and poor physical features of school buildings. In addition, they struggle with poor prospects concerning pay, promotion, and career development which also contribute to their stress. Since, the teachers who are burdened by stress will not be in a position to teach students in an optimal manner; this makes them to have apathy toward their work thereby affecting the overall performance of schools. High stress level of a teacher causes disappointment, frustration, aggression, anxiety, avoidance of work, increased absenteeism, and/or stress, thus, decreased teachers and student performance levels. In addition to this, facets of teacher performance, such as creativity, classroom management, and implementation of educational techniques, may suffer when teachers experience high levels of stress. Thus, the consequences of occupational stress not only affect teachers psychologically, physiologically, and socially, but are also detrimental to those they interact with during their work day.

Occupational stress is unavoidable which adversely affects the members of every institution, and it is greatly believed that the factors creating stress will probably continue to increase among teachers’ in real life. On this note, factors such as the teaching context (teachers’ background, gender, experience, teaching load, class composition, school, teaching subject, workload), personal factors and satisfaction have been found to all directly affect a teacher’s stress level (Hodge, 1992; Smith & Bourke, 1992). As occupational stress can make teachers dissatisfied, this can weaken/ lower their work values too. Conversely, if an institution can provide individuals with the basic elements they value, stress is reduced (Knoop, 1994b). Teacher-student relationships are also seen as one of the factors that influence
teachers' stress, and the stresses developed by teachers are reflected in their behavior towards students. Teacher stress also arises from being unable to discipline pupils in the way they would prefer. It is therefore, important to examine the current levels of occupational stress experienced by teachers as well as factors influencing these levels to gain a better understanding of this phenomenon. Thus, investigating the relationships among teacher's occupational stress, demographic factors, job satisfaction, work values and pupil control ideology attracts serious attention in the present study.

Review of related literature

Investigating the gender differences, various research findings have shown the existence of significant relationships between occupational stress of male and female teachers, where male teachers reported more psychological and physical stress than the female teachers (Mondal, Shrestha, & Bhaila, 2011; Pei & Guoli, 2007). Contrary to this, female teachers also indicated a higher level of stress as compared to the male teachers in several studies (Abdul Majid, 1998; Gandhi & Sharda, 2013; Jan, Malik & Ahmad; 2013). To this non-parallel result was reported by Okeke & Dlamini (2013) who observed no significant relationship between work-related stress and gender among high school teachers. Relationship between teachers’ occupational stress and teaching experience was studied by Cooke et al. (1990); they reported that the first year of teaching was not at all easy. While, primary and junior high school teachers’ with long teaching experience have been reported to have high work stress (Wang, 2012). No significant differences among the stress level of primary (Siong & Yet, 2004; Mokdad, 2005) along with elementary (Roxas, 2009) school teachers and years of teaching experience have also been evidenced.

Teachers' qualification as a source of stress was found to be significant on Personal Stress by Ravichandran and Rajendran (2007). Singh (2012) also showed undergraduate teachers to be less occupationally stress than the post graduate secondary teachers. Nayak (2008) showed designation to be significantly and negatively correlated with work role, personal development and total stressors among the teachers. Further, researchers (Okeke & Dlamini, 2013; Siong & Yet, 2004) stated no significant difference between the level of stress and academic qualification among teachers. Owing to a limited research on teachers’ occupational stress and salary, an
indirect relation has been shown by Sargent and Hannum (2003) who observed the timely payment of salaries and school expenditures to be positively linked to teacher satisfaction. Khurshid, Butt, and Malik (2011) revealed that the university teachers with low income, experience more occupational role stress than teachers with higher income level. Significant differences among teachers occupational stress and the various subjects taught by them have also been noticed. Hodge, Jupp, and Taylor (1994) showed that Music teachers were substantially more distressed and burnt out than Mathematics teachers. On the other hand, Shukla (2008) reported no significant difference in the relationship between perceived burnout and teaching effectiveness as perceived by teachers on the basis of subjects taught (Language, Social Science, Science).

A considerable level of impact of stress on job satisfaction and job involvement among teachers has been reported (Muthuvelayutham & Mohanasundaram, 2012). Researchers (Ayan & Kocacik, 2010) witnessed that teachers job satisfaction showed significant differences in terms of characteristics of liking competence, being ambitious in the social area and occupation, getting angry easily, and hiding their feelings. Further, De Nobile and McCormick (2005) investigated moderate to strong correlations existed between most of the job satisfaction and occupational stress variables. Most interestingly, Chaudhry (2012) demonstrated no relationship between the occupational stress and overall job satisfaction in case of both male and female faculty members.

Allida (2005) explored significant relationships between work values and occupational stress, and identified Religious, Occupational, and Intellectual Achievement-oriented work values as the three very important primary work values. Workload and Time Pressure, managing Students Behavior and Learning, and Financial Security were found to be the three major stressors of the respondents wherein they experienced moderate stress. Further, Singh (2005) showed stress is negatively related to five work values namely- economic return, social service, power, independence and adventure. She also concluded that stress is not related to intellectual challenge, chances of progress, material handled, associates, surrounding and variety work values.

Agoglia (1998) detected significant direct relationships between pupil control ideology and occupational stress. Alternative path models suggested that teachers' control beliefs (i.e., locus of control and pupil control ideology), independent of
occupational stress, significantly affected attitude formation. Helwig (1997) found that teachers intending to enter school administration were more humanistic than their colleagues. Teachers who intended to leave the classroom for positions outside of education were found to be under more stress from students, less efficacious and more custodial than those teachers intending to remain in the classroom. Quite opposite to this, Bas (2011) showed some negative significant correlations among teachers student control ideologies and their perceived burnout levels.

Statement of the problem

"An investigation into the relationship among Teacher's Occupational Stress, Job Satisfaction, Work Values and Pupil Control Ideology".

Objectives of the study

The investigator has started the work with the following objectives:

1. To develop two standard tools of research, namely Teachers Occupational Stress Scale and Teachers Job Satisfaction Scale, which will prove as valuable additions to the psychometric units of Indian Universities and abroad also.

2. To study the general pattern of occupational stress of secondary school teachers.

3. To study the combined and individual effect of demographic factors on teachers' stress toward their occupation.

4. To study the relationship between occupational stress of secondary school teachers and their demographic factors.

5. To study the combined and individual effect of job satisfaction and pupil control ideology on teachers’ stress toward their occupation.


7. To study the combined and individual effect of work values on teachers’ stress toward their occupation.

8. To explore the relationship between occupational stress of secondary school teachers and their preferences of work values.


10. To point out the main educational implications of this study.
The main purpose of this study is broadly stated to investigate the relationship among secondary school teacher's occupational stress, demographic factors, job satisfaction, work values and pupil control ideology. In this study demographic factors and work values have been taken in the sense as:

➢ Demographic factors include: Gender, teaching experience, qualification, salary and subjects taught by teachers.

➢ Work values include: Good economic return, high status/ prestige, opportunities of human/ social service, friendly/ cooperating colleagues, security of service, fair/ sympathetic supervisions, opportunities of further progress/ advancement, opportunities of intellectual stimulation, work consistent with my (teacher's) life goals/ values, opportunities of exercising power/ authority, freedom in work.

Questions posed for the study

In this study of teachers occupational stress in relation to their demographic factors, job satisfaction, work values and pupil control ideology, certain pertinent questions arise which may be stated as under:

1. What is the general pattern of secondary school teachers' stress toward their occupation?

2. Do predictor demographic factors explain the differences in mean occupational stress score of teachers?

3. Do demographic factors explain the differences in mean occupational stress score of teachers?

4. Do predictor factors (job satisfaction and pupil control ideology) explain the differences in mean occupational stress score of teachers?

5. Does job satisfaction explain the differences in mean occupational stress score of teachers?

6. Do predictor factors of work values explain the differences in mean occupational stress score of teachers?

7. Do work values explain the differences in mean occupational stress score of teachers?

8. Does pupil control ideology explain the differences in mean occupational stress score of teachers?
Hypotheses of the study

In the light of the above-mentioned objectives, the study was conducted after formulating the following research hypotheses:

1. The secondary school teachers, in general, experience more stress toward their occupation.

2. The predictor demographic factors are not the significant predictors of teachers' stress toward their occupation.

3. There is no significant difference in occupational stress in relation to demographic factors of the teachers'.

4. The predictor factors (job satisfaction and pupil control ideology) are not the significant predictors of teachers' stress toward their occupation.

5. There is no significant difference in occupational stress in relation to job satisfaction of the teachers'.

6. The predictor factors of work values are not the significant predictors of teachers' stress toward their occupation.

7. There is no significant difference in occupational stress in relation to the perception of teachers' work values.

8. There is no significant difference in occupational stress in relation to pupil control ideology of the teachers'.

Sample of the study

The sample was selected keeping in view the needs and objectives of the study. It should be mentioned that these 608 secondary school teachers' have been chosen from 41 schools of Eastern and Western U.P. of India. These schools constitute different categories of management, some of them are privately managed, and some are managed fully or partially by the government. The types of management are categorized as Government, Government Aided, Muslim Managed, Non-Muslim Managed, and Aligarh Muslim University Managed Schools. Out of the 41 schools selected in the study, ten are single-sex male schools constituting 153 teachers, seven are single-sex female schools having 128 teachers, and twenty four are co-educational schools having 327 teachers in total. The number of the female teachers' is more than that of male teachers, their numbers being 327 and 281, respectively.
Data collected for the study

The following baseline data were collected for carrying out the present investigation:

➢ Data used for the development of Teachers Occupational Stress Scale.
➢ Data used for the development of Teachers Job Satisfaction Scale.
➢ Scores on the teachers stress toward their occupation.
➢ Scores of the teachers demographic factors.
➢ Scores of the teachers job satisfaction.
➢ Rank scores of the teachers on their preferences of work values.
➢ Scores of the teachers pupil control ideology.

Tools used for the study

The investigator used following tools for the collection of data:

➢ Teachers Occupational Stress Scale (developed by the investigator).
➢ Teachers Job Satisfaction Scale (developed by the investigator).
➢ Work Values Scale (11 work values were selected from the six lists of different work values suggested by the eminent vocational psychologists).
➢ Pupil Control Ideology Scale (developed by Khatoon & Munir, 2009).
➢ Personal information sheet (prepared by the investigator).

Statistical techniques employed

The investigator proceeded with the analysis of data by using relevant statistical techniques, which were selected only after the investigator found them to be the most appropriate and compatible for the analysis of data. They are specified as follows:

➢ Determination of the reliability and validity of the Teachers Occupational Stress Scale and Teachers Job Satisfaction Scale.
➢ Computation of mean and standard deviation.
➢ Use of linear measure of correlation (Pearson’s Product Moment Coefficient Correlation).
Use of Multiple Regression for seeing the combined and individual effect of variables on the dependent variable.

Use of F-test for measuring the significance of difference among more than two means.

Use of t-test for measuring the significance of difference between two means.

Findings

After statistical analysis, the following conclusions were drawn in accordance with the hypotheses and results of the study:

1. General pattern of occupational stress of secondary school teachers

   i. The analysis of the data indicated that majority of secondary school teachers’ (47.70%) have less occupational stress.

   ii. Results have also proved that greater percentage of female teachers’ (54.74%) face less stress toward their occupation than their male colleagues (39.50%).

2. Combined and individual relationship of demographic factors with teachers’ occupational stress

   i. The results of the study showed that 10% of the variance in teachers’ stress toward their occupation can be explained by the combined effect of the predictor demographic variables, i.e. gender, teaching experience, qualification, salary and subjects taught.

   ii. Gender is indicated as the best predictor of occupational stress in this study, and contributed 12% to teachers’ occupational stress.

3. Relationship between occupational stress and demographic factors

   i. The analysis of the results reveals that males’ occupational stress is significantly higher than the female complements. Females, thus, were observed to come across less stressful experiences in the secondary schools.

   ii. This study shows an inverted curvilinear relationship with the lowest stress found among novice teachers, i.e. 0-5 years and among those working as a
teacher for more than 16 years, while those with an average range of experience, that is, 6-10 and 11-15 years appear to have most stress. Further, no significant differences are seen in mean occupational stress scores of three groups (0-5 years and 11-15 years, 0-5 years and more than 16 years groups, and 11-15 and more than 16 years) of teaching experience.

iii. It has been found that academic qualification of teachers’ is related to their occupational stress. In the present sample, 33.88% of the teachers were not trained at all. Results further show that, progressive advancement in lower educational levels leads to a rise in occupational stress among teachers, while with the attainment of highest educational level, the occupational stress among teachers’ decrease.

iv. No relationship has been demonstrated between salary groups and occupational stress of teachers’. Gender-wise breakdown shows that males have more occupational stress than their female colleagues, but a statistically significant difference is observed only in teachers’ falling in 15,000 INR onwards salary group.

v. Furthermore, another variable which is not found to be an influencing factor for occupational stress among teachers’ is the subjects taught by them. The results obtained did not support the idea that the languages, arts, social sciences and sciences teachers differ on the level of stress experienced by them.

4. Combined and individual effect of job satisfaction and pupil control ideology on teachers’ stress toward their occupation

i. The analysis of the results put to light that 69% of the variance in teachers’ occupational stress is explained by the combined effect of predictor variables, i.e. job satisfaction and pupil control ideology.

ii. It has been found that satisfaction in teachers’ with their job results to be the strongest factor (74%) in comparison to pupil control ideology (18%) which predicts their occupational stress.
5. Relationship between occupational stress and job satisfaction

The major findings in regard to the relationship between occupational stress and job satisfaction towards teaching are given below:

i. A significant and negative correlation is found between the teachers' occupational stress and job satisfaction (r = -0.81).

ii. Less satisfied teachers are significantly different from the more satisfied group in regard to their occupational stress. The former group of teachers is more stressed with their teaching occupation than the more satisfied group of teachers.

iii. Less satisfied teachers are found to be significantly different from the moderate satisfied group in relation to their occupational stress. The former group of teachers is found to be more occupationally stressed than their complements.

iv. Moderate satisfied group is found to be significantly different than the more satisfied group in regard to their occupational stress levels. The former group is found to be more stressed with their occupation than their counterparts.

v. No significant differences are found in the male and female teachers of less, moderate and more job satisfaction groups regarding their occupational stress. However, females in less satisfied and more satisfied groups have more occupational stress than their male colleagues.

6. Combined and individual effect of work values on teachers' stress toward their occupation

i. The analysis of the results displays that 19% of the variance in teachers' occupational stress is explained by the combined effect of eleven predictor variables of work values.

ii. The results in this study further show that opportunities of exercising power/ authority by the teachers' emerge as the strongest factor (61%) among all the work values which predict their occupational stress.
7. **Relationship between occupational stress and preferences of work values**

This study also explores the links between differently preferred work values and occupational stress of secondary school teachers. The major findings are as follows:

i. The results indicate that secondary school teachers recognize high status/prestige as the most preferred work value, sequentially preferred by nine different work values; while opportunities of exercising power/authority work value fallouts as the least preferred one by them.

ii. Though negative yet significant correlations are observed between teachers' occupational stress and three of the work values, namely, good economic return \((r = -0.18)\), high status/prestige \((r = -0.13)\) and opportunities of exercising power/authority \((r = -0.30)\).

iii. Five positive significant correlations between occupational stress and work values are also spotted in this study, i.e. security of service \((r = 0.12)\), opportunities of further progress/advancement \((r = 0.15)\), work consistent with my life goals/values \((r = 0.11)\) and freedom in my work \((r = 0.11)\), opportunities of intellectual stimulation \((r = 0.01)\).

iv. Occupational stress is not related to three work values of secondary school teachers, namely opportunities of human/social service, friendly/cooperating colleagues and fair/sympathetic supervisions.

This study also ventures further to find the preferences of work values among the less, moderate and more occupational stress groups of teachers. With regard to the relative importance of work values as perceived by different occupational stress groups of teachers, the following findings were arrived at:

i. Less stressed teachers consider security of service to be the most important work value, followed by freedom in my work and then by opportunities of human/social service. As against this, this group assigned the lowest ranks to opportunities of exercising power/authority, opportunities of intellectual stimulation and good economic return, with respect to the descending order of preference.
More stressed teachers consider good economic return work value to be the most important, followed by high status/ prestige, and then by opportunities of human/ social service. As against this, the least preferred work values by this group consist of work consistent with my life goals/ values, opportunities of exercising power/ authority and opportunities of intellectual stimulation, with their respective ranks of 10, 9 and 8.

Moderate stressed teachers give top most importance to high status/ prestige, followed by good economic return, and thereafter, friendly/ cooperating colleagues. The least important work values for this group constitute opportunities of intellectual stimulation, opportunities of exercising power/ authority and fair/ sympathetic supervisions, with the ranks of 11, 10, and 9 respectively.

The findings led to the conclusion that less stress group of teachers do not see eye to eye with more and moderate stress groups of teachers in regard to their perception of the relative importance of various work values in teaching.

8. Relationship between occupational stress and pupil control ideology

Major findings relating to the relationship between various occupational stress groups of teachers’ and pupil control ideology are reported below:

i. A significant and positive correlation is found between occupational stress behavior of teachers’ and pupil control ideology (r= 0.48).

ii. Humanistic teachers’ are significantly different from the custodial group of teachers in regard to their occupational stress. The former group of teachers’ is more humanistic in their approach to problems of discipline than the other group, and therefore, experiences less stress than the latter.

iii. Humanistic and moderate groups of teachers’ differ between themselves in regard to their occupational stress, the former being more humanistic and less stressful than the latter group.

iv. There exists significant difference between moderate and custodial groups of teachers’ as far as their occupational stress is concerned, the former being more adaptable to humanitarian approach and less stressed than the latter.
v. There occurs significant difference between male and female teachers of moderate pupil control ideology group in relation to their occupational stress. Interestingly, male teachers' in this group are found to be more stressed than their female counterparts.

Educational implications

From the research findings in the present study, several implications for the school administrators, school authorities, management committees, policy makers, educationists, psychologists, student-teachers and future researchers may be drawn with regard to occupational stress of teachers' in secondary schools of India. The crux of the current problem may lie on the assumption that teachers view their stress problem at personal level, and that schools seldom at least try to render help on such personal basis.

The study has shown that there are variations in the experience of stress related to demographic factors, job satisfaction, work values, and pupil control ideology by the male and female secondary school teachers. This points to the need for the effective management of these determinants of stress, either by making use of different management strategies at regular intervals, or by providing effective guidance and counseling.

For the significant changes to take place, it is instructed that they may have to be implemented at the school or in some cases at the department level. It is therefore recommended that principals and the school management committee should investigate the causes for teachers' occupational stress and if possible, to provide ways, like workshops, seminars, and periodical stress management programmes for reducing the levels of stress among the teachers, which in turn will improve their functional skills and lead to effective teaching/ learning in the classroom. Some major points should be taken care by the institution that, supervision, support and relationship with the teachers' need to be corrected and enhanced most strongly. On the other hand, some areas like frustration, ignorance and recognition need to be taken care so as to reduce the stress and dissatisfaction in teachers'.

The findings of the study also revealed that teachers' with less occupational stress are more satisfied with their profession than their counterparts. Thus, with respect to the efficiency of teachers' and their role in productivity of education the study indicates the need to facilitate professional development and healthy socio-
emotional development of teachers. This study highlights the importance of day-to-day interaction among the school partners — teachers, pupils, parents — in shaping teachers' own experiences. Promoting a positive school climate should therefore be considered a fundamental part of school development planning.

The present study shows a strong relationship between teachers' occupational stress and their preferences for work values. Thus, administrators and policy makers must comprehend the different needs and requirements of their teachers' and staff members, and must provide greater consideration of all teachers' needs and work values through more flexible management structures, professional development support, supportive school culture, recognition, stable contracts, rewards and collaborative decision-making.

This study also confirms an association between teachers' occupational stress and their pupil control ideology, with higher occupationally stressed teachers showing a more custodial orientation in comparison to teachers with less stressed teachers'. This implies that teachers' should also be conscious of the negative effects of stress. More schools with humanistic orientations need to be established than the custodial. Also, the teacher training institutions should introduce relevant refresher courses and in-service programmes for student-teachers as well as front-line teachers to be aware and deal with the notion of stress; as well as lessen the tendency of teachers' toward adopting custodial control ideology more. To reduce the stress on administrative work, the Education Department should provide more administrative support, fund and resources to schools, such as computerization or additional clerical staff to help teachers' in clerical work.

Thus, this study is useful to guide employee readers also to achieve their goals in order to satisfy their career by creating awareness about these causal factors of stress and adopt coping strategies for minimization of stress in their life; as stress cannot be vanished from life. So we may conclude that the implications of research are many and varied.

**Limitations of the study**

Limitations of the study should not detract from the value of the study. They are as enumerated below:
1. The study was confined to secondary schools from eastern and western regions of Uttar Pradesh state of India. The findings could have been more convincing if a larger sample size had been taken from secondary schools covering more number of districts of the state.

2. The results of the present study had reflected the secondary school teachers' occupational stress in various districts of Uttar Pradesh at a particular time. But these findings may be quite different at some other time or in other socio-cultural settings.

3. This study was focused on secondary school teachers only. Therefore, the results may not be generalizable to teachers, administrators and student-teachers of other levels—primary, elementary, higher secondary. The extent to which the findings may be considered applicable to other situations will depend upon the similarity between the teachers under study and the group in question.

4. The present study was limited to serving teachers of Government, Government-aided, Muslim managed, Non-Muslim managed, and Aligarh Muslim University managed secondary schools. It did not study the occupational stress of teachers who had left the secondary sector for various reasons, such as prolonged occupational stress, burnout, change of jobs, promotion and emigration.

5. Only five of the demographic factors were studied as the latent variables in this study, so the findings may not be applicable to rest of the demographic variables. Also, the present study was mainly confined to three variables, i.e. job satisfaction, work values and pupil control ideology, although a number of other variables are known to affect teachers' occupational stress.

6. As stress is believed to be caused by different aspects of the working environment, more factors or variables can also be included in the questionnaire. With increased sample size, a more detailed empirical study among independent variables and the variables that have multiple categories can be performed; and need to be reported in a future study.
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2013
Dedicated to My Loving Parents
CANDIDATE'S DECLARATION

I, Mariya Aftab, Department of Education certify that the work embodied in this Ph.D. thesis is my own bonafide work carried out by me under the supervision of Dr. Tahira Khatoon at Aligarh Muslim University, Aligarh. The matter embodied in this Ph.D. thesis has not been submitted for the award of any other degree.

I declare that I have faithfully acknowledged, given credit to and referred to the research workers wherever their works have been cited in the text and the body of the thesis. I further certify that I have not willfully lifted up some other’s work, para, text, data, result, etc. reported in the journals, books, magazines, reports, dissertation, theses, etc., or available at web-sites and included them in this Ph.D. thesis and cited as my own work.

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CERTIFICATE FROM THE SUPERVISOR

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

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This is to certify that Ms. Mariya Aftab Department of Education has satisfactorily completed the course work/comprehensive examination and pre-submission seminar requirement, which is part of her Ph.D. programme.

Prof. Nabi Ahmed
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(MARIYA AFTAB)
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Abbreviations and Acronyms

A.M.U.   Aligarh Muslim University
Co-ed    Co-educational
df       Degree of freedom
i.e.     That is
M        Mean
N        Number of teachers
N.S.     Not significant
P        Level of significance
PCI      Pupil Control Ideology
r        Correlation
SD       Standard deviation
Sr.      Senior
TJSS     Teachers Job Satisfaction Scale
TOSS     Teachers Occupational Stress Scale
WVS      Work Values Scale
Chapter-1

Introduction
Chapter 1
Introduction

1.1 Introduction

The present age has been called the age of anxiety and life is not as simple as most of us think. With the rapid changes in the world around us sometimes it seems difficult to keep in pace and adjust according to these changing situations. Likewise, individuals often feel helpless in solving their problems and thereby increase their frustrations. Variety in the nature of problems makes it difficult to maintain equilibrium of mind, and this disequilibrium ultimately leads to stress. Stress is common in the world of day to day activities, and is not something strange to our daily life anymore. Being familiar to layman and professionals both, it is still perceived as a problem to people of all walks of life. Stress produces a range of undesirable, expensive, and debilitating consequences (Ross, 2005), which affect both individuals and organizations. Too much of stress may be counterproductive and would in due course impair both an individual’s physical and mental health. When individuals experience extreme stress, all aspects of human behavior, including the work in which they are actively involved get affected. Stress holds an impact on the employee’s physical health, mental well-being, effectiveness in the workplace, reduces the efficiency in workers and has been increasing in recent years (Spielberger & Reheiser, 1995). Evidences through various researches and studies prove that nothing can isolate stress from human beings. Stress, thus, is an integral part of the natural fabric of life that affects people of all ages, socioeconomic status, occupation, and ethnic group.

The term “stress” was first introduced by Hans Selye, who characterized it as a process in which environmental forces threaten an individual’s well-being. The researcher (Selye, 1976) further defined stress as a physiological non-specific reaction to external or internal demands. Stress is a state of mental or emotional strain or suspense, and; a number of normal reactions of the body (mental, emotional, and physiological) designed for self-preservation (Princeton University, 2001). Despite its diffuse perception, most of the well-known definitions emphasize stress as any factor that threatens the health of an individual or has an adverse effect on the functioning of the body (Oxford Medical Publications, 1985). Stress is a perception phenomenon
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which exists from a comparison between the command given and ability of a person to execute the task successfully. Unbalanced situation in this mechanism leads to stress experience and ultimately into stress reaction (Cox & Brockley, 1984).

Stress, in general, and occupational stress, in particular, is a fact of modern day life that seems to have been increasing. Stress is an unavoidable characteristic of life and work. Work-related stress is defined as, “a pattern of emotional, cognitive, behavioral and physiological reactions to adverse and noxious aspects of work content, work organization and work environment” (European Commission, 2002). Stress involving work is termed as Occupational Stress. It occurs when there is discrepancy between the demands of the workplace and that of individual’s (Tsutsumi et al., 2009). Beehr and Newman (1978) defined occupational stress as a stimulus wherein the job related factors interact with the workers to change (i.e., or enhance) his/ her psychological and/ or physiological condition so that the person (i.e., mind/ body) is forced to deviate from normal functioning. Occupational stress describes physical, mental and emotional wear and tear brought about by incongruence between the requirement of the job and the capabilities, resources and needs of the employee to cope with job demands (Akinboye, Akinboye, & Adeyemo, 2002).

Stress is a widespread feature of work in teaching. The teaching profession is one of the helping professions in which practitioners are normally committed to giving their best for the welfare of those entrusted in their care. Researchers (Bravo et al., 2010; Morris, 2010; Severino & Messina, 2010) believed teacher to be the most significant environment factor at student learning. The main task of a teacher comprises of imparting knowledge or skill through instruction. Simultaneously, teachers have to live up to a great many expectations besides their routine work like preparing lessons, teaching, marking assignments, etc. They also have to individualize instruction, personalize reinforcements, to be innovative and creative, to adapt to new changes and meet new challenges. Other than this, teachers have to attend seminars, a variety of meetings with colleagues, students and parents etc. They have to oversee extra-curricular activities, and to attend or conduct morning assemblies in many mission schools. Teachers hold the responsibility to guide students to learn by providing clear directions and explanations in order to educate the future generation. Moreover, they act as role models and their each action taken; reflect upon their
professional status as teachers. Their heavy workload is more than the teachers can shoulder and they, therefore, experience stress to a great extent.

The working environment for teachers is highly stress-provoking (Sveinsdottir, Gunarsdottir, & Fridriksdottir, 2007). High stress level of a teacher causes disappointment, frustration, aggression, anxiety, avoidance of work, increased absenteeism, and/or decreased teachers and student performance levels (Kaiser & Polczynski, 1982). In addition to this, facets of teacher performance, such as creativity, classroom management, and implementation of educational techniques, may suffer when teachers experience high levels of stress (Kaiser & Polczynski, 1982; Solomon, 1960). Organizational stress affects the teacher's psychological, physical and behavioral responses (Beard, 1990; Ferreira, 1994; Marais, 1992). Severe physical and psychological consequences for teachers include, fatigue, anxiety, depression, poor teaching performance and judgment as well as low job satisfaction (Capel, 1987; Eckles, 1987). Researchers (Riaz & Ramzan, 2013) further advocated that the main signs of stress among teachers’ include tension, pain in the neck/shoulders, and/or suffer from migraine and emotional expression. Stressed teachers, thus, have more illness (Bailey, 2013), medicine intake, anxiety, depression, and sexual passivity. In schools, teacher stress is manifested in a growing number of teacher absences per year as well as an increase in early retirement. Stress is reported as one of the biggest problems faced by teachers today, and that it is the main health and safety concern in four out of five schools (National Union of Teachers, 1999).

Teacher stress is seen as the unpleasant feelings that teachers experience as a result of their work (Boyle et al., 1995). Some teachers have defined stress as anxiety, fear, inability to cope, frustration and unhappiness (Pratt, 1979), while others associate stress with personal weakness and professional incompetence (Dunham, 1984). Teacher stress has been described as negative feeling or unpleasant emotional state resulting from work as a teacher (Kyriacou, 1989). Occupational stress of school teachers is a “response by a teacher of negative effect (such as anger, anxiety or depression) accompanied by potentially pathogenic physiological changes (such as increased heart rate, or release of adrenocorticotropic hormone into the bloodstream) as a result of the demands made upon the teacher in his role as a teacher”, (Kyriacou & Sutcliffe, 1977). Its most common occupational use- i.e., “under stress”-
implies a “response syndrome of negative effects resulting from the teacher’s job” (Kyriacou & Sutcliffe, 1978b).

Moreover, occupational stress has been associated with burnout, which is considered a product of long term exposure to stress (Burke & Greenglass, 1994; Mearns & Cain, 2003). Also, exposure to chronic stress can cause teachers to experience symptoms of burnout. This robs the individual of the will to achieve, and contributes to the development of a lowered sense of self-esteem, decrements in work performance, cynicism and apathy (Sarros, 1988). Freudenberger (1980) simply equated burnout with stress. In general, burnout is a function of feeling inconsequential-feeling that no matter how hard one works, the payoffs in terms of accomplishment, recognition, or appreciation are not there. Gold and Bachelor (2001) defined burnout as “a function of the many stresses felt by individuals in both their social life and their work experiences”.

Beehr and Franz (1987) argued that any study of organizational stress must focus on stressors and strains; its antecedents and its outcomes. A stressor is defined as an experience or situation within or outside the individual, which elicits a stress response. It is the individual’s unique perception, which determines whether the stress is viewed as negative or positive (Hayward, 1993). A wide range of organizational stressors has been identified across different teachers in different contexts. Typically, they include stressors in the areas of work role (e.g., workload); administration; class size; role ambiguity and conflict, (e.g., the sometimes conflicting demands of school management); the pressures of the teachers’ roles (e.g., counselor, facilitator); poor working conditions; little recognition and low remuneration; lack of involvement in decision-making; student recalcitrance; lack of effective communication, as well as the many emotional demands of teaching (Blix et al., 1994; Brown & Ralph, 1992; Cooper & Kelly, 1993; Punch & Tuetteeman, 1990). Furthermore, the factors reported by teachers as being troublesome or stressful have indicated student discipline, negative student attitudes toward school, physical violence, inadequate preparation time, lack of resources, in-competent administration, lack of clear role definition, and heavy workloads (Beasley, Myette, & Serna, 1983; Chichon & Koff, 1978; Golladay & Noel, 1978; Olander & Farrell, 1970).

The nature and causes of teacher stress is complex (Borg & Riding, 1991a). Dunham (1992) advocated that three main approaches could be used to understand the
nature of stress in teaching. The first one is analogous to the "engineering" model of stress. There are external pressures exerted on teachers in schools, and teachers have limits to stress. In this approach, stress is a set of causes. The second approach is based on the "physiological" model, which focuses on the forms of reactions taken by teachers in response to these pressures. They may be emotional and bodily manifestations. The third one is the interactional approach that emphasizes the need to identify the sources of stress and the behavior that they adopt to cope with these demands. Mearns and Cain (2003) have examined the role different factors may play in relation to teacher stress such as environmental factors, contextual factors, and teacher coping and personality characteristics.

One of the frequent causes of stress in secondary schools is learners' disrupting the process of education and low levels of motivation (Payne & Furnham, 1987; Kyriacou, 1987). The discipline and classroom control issues cause interpersonal stress for teachers at all grade levels. The other frequently stated causes of stress among teachers are large number of students in a classroom, packed timetable, uneven duties, uncomfortable working conditions, co-curriculum activities, meetings, in-house trainings, courses to attend extra classes, unnecessary amounted paperwork (Hunnur et al., 2013), incompatible and excessive demands on teachers, and frequent school reforms (Wahlund & Nerell, 1976). In addition, a study in Bahrain by Al-Khalefa (1999) found work conditions, salaries, bonuses and allowances, status of physical education, supervision, school facilities, workload and career development to be the major causes of stress for physical education teachers.

Furthermore, Farber (1984) assessed the sources of stress of suburban teachers in the United States and found that excessive paperwork, unsuccessful administrative meetings, and the lack of advancement opportunities in teaching were related to stress. Workload, lack of resources, poor professional relationships with colleagues, inadequate salary, pupil misbehavior, difficult interactions with parents and expectations of other staff have been identified as sources of stress in many studies (Borg, Riding & Falzon, 1991; Boyle et al., 1995; Pierce & Molloy, 1990; Pithers & Soden, 1998; Travers & Cooper, 1993). Other sources of occupational stress reported include poor working conditions, work overload or underload, role conflict and ambiguity, unsatisfactory career development and erratic work hours (Quick & Quick, 1984). Smilansky (1984) examined teachers' work satisfaction and reports of job-
related stress in some English elementary schools, and he found that teachers' general satisfaction and stress at work were related mostly to their reported feelings about what had happened within class (such as relations with pupils, the process of teaching, and pupil behavior in school) rather than to administrative or policy questions (such as degree of work autonomy, relations with principals).

Increase in workload, a hostile environment, large classes, delay and non-payment of salaries, poor working environment, poor condition of service, parents’ insults and assaults, and time pressure have been identified as sources of occupational stress (Jack and Punch, 2001). It is widely accepted that many identified teacher stressors appear consistently and may be classified under the general domains of environmental and personality based stressors. Environmental stressors include student discipline and attitude problems, teacher competence, and teacher-administrator relations. Additional stressors include accountability laws, large classes, low salaries, intense pupil dependence, and declining community support. Sources of personality-induced stressors relate to one’s self-perception. In addition, stressful events in the teacher’s domestic life may also influence his or her overall emotional, cognitive, and behavioral state. It is well accepted that highly stressed teachers let work dominate their lives to such an extent that instead of coping with their stress, they brought work home, cutting back on their social and family lives. According to Lasky (1995), demands associated with family and finances can be a major source of ‘extra-organizational’ stress that can complicate, or even precipitate, work-place stress. The prevalence of stress among teachers is now well documented. The lack of discipline in schools, abolishment of corporal punishment, unmotivated learners, redeployment, retrenchments and retirement packages for teachers, large pupil-teacher ratios and a new curriculum approach all contribute to raising the stress levels of teachers (Saptoe, 2000).

The teaching context (teachers’ background, sex, experience, teaching load, class composition, school, teaching subject, workload), personal factors and satisfaction have been found to all directly affect a teacher’s stress level (Hodge, 1992; Smith & Bourke, 1992; Tuetteman & Punch, 1992). Demographic factors may play a significant role in the level of occupational stress felt by teachers and other staff (Kahn & Byosiere, 1992; Kyriacou, 2001). Demographic variables that are proven to relate to someone’s job stressor/health relationships include gender, age,
marital status, job tenure, job title, and hierarchical level (Dua, 1994; Lind & Otte, 1994; Murphy, 1995), among which gender, age and hierarchical level were found to be the most significant. In particular, the literature suggests four variables that may have significant interactions with occupational stress: gender, age, experience in the job and position (Antoniou et al., 2006; Lau, Yuen & Chan, 2005; Laughlin, 1984a; Manthei & Gilmore, 1996; McCormick, 1997a; Punch & Tuetteman, 1996). On the contrary, some studies reported that teacher demographic factors like age, sex, teaching experience, and length of training did not correlate significantly with perceived teacher stress (Chichon & Koff, 1978; Kyriacou & Sutcliffe, 1978b), as further explanations reveal.

Workplace stress has emerged as a major problem, and it has been suggested that gender may be an important demographic characteristic to consider in the experience of stress (Dick & Wagner, 2001; Jick & Mitz, 1985; Laughlin, 1984a; McCormick, 1997a; Punch & Tuetteman, 1996). However, the literature is far from conclusive about the nature of the relationship gender has with occupational stress (Spielberger & Reheiser, 1995). For example, McCormick (2000) in his study of Australian Catholic school teachers reported that males experienced significantly more stress attributed to system demands than females. Crane and Iwanicki (1986) also found male special education teachers to exhibit higher levels of stress than females. Results from a study by Bhagawan (1997) on job stress among 53 male and 47 female teachers indicated that male teachers experienced more stress compared to female teachers. The findings have been echoed by many researchers (Leithwood, Jantzi, & Steinbach, 2001; Tumkaya, 2001).

On the other hand, Laughlin (1984a) in his study of Australian teachers reported that female teachers experienced more stress than their male colleagues. This finding has been echoed by other studies (Al-Mohannadi & Capel, 2007; Antoniou et al., 2006; McCormick & Solman, 1992b). Females employed in education and related sectors accounted for more work stress related claims than their male colleagues (Guthrie, 2006). Calabrese (1987) asserted that female teachers experienced higher levels of stress than males, and indicated that societal, personal, and that organizational factors all negatively influence the female teachers.

There is also an abundance of research suggesting no gender differences in occupational stress (Chan, 2002; Chaplain, 1995; Dick & Wagner, 2001; Jepson &
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Years of experience in the profession would also contribute to stress levels. It could be that, as stress is cumulative, the longer they have been a teacher, the more stressed they will be. The study by Sari (2004) among Turkish special school teachers has been found to support this notion. Quite opposite to this, Blix et al. (1994) found that faculty having less than 10 years of experience had higher stress than faculty with more than 20 years of experience. A correlation between younger teachers and reports of higher stress levels has also been presented by the researchers (Altemaier, Russell, & Van Velzen, 1987; Maslach & Jackson, 1996). Similarly, Malcolmson, Naylor, and Schaefer (2003) indicated younger, less-experienced teachers report both more stress and lesser ability to cope with it, as compared with their older and more experienced colleagues. However, a number of studies suggest that experience has no relationship with occupational stress (Chaplain, 1995; Jepson & Forrest, 2006; Solman & Feld, 1989). Feitler and Tokar (1982) found that stress levels did not covary with years of teaching experience.

Some studies have been found to posit the relationship of occupational stress with the teachers’ qualification. A study by Lawrenson and McKinnon (1982) found that master’s level teachers of students with emotional and behavioral disorders (EBD) have higher attrition rates than those with bachelor’s degrees. Cooper and Kelly (1993) found that primary school teachers suffer more stress than secondary school teachers, deputy head teachers and head teachers. Similarly, New Zealand primary and secondary teachers in urban and rural areas were found to report ‘high’ or ‘extremely high’ levels of occupational stress (Manthei & Solman, 1988). Most studies of work stress in teachers have found that junior and secondary teachers experience similar levels of stress and distress, and that teachers in one place are about as stressed as their colleagues elsewhere (Finlay-Jones & Burvill, 1977; Nagy & Davis, 1985).
Stressors arising from the non-work personal domain, such as family and financial stressors, may contribute to occupational stress levels in an additive way (Greenhaus & Parasuraman, 1987). Olivier and Venter (2003) in their research observed that respondents indicated that salaries cause a great deal of stress, especially taking into account the after-hours input their jobs demand from them and how negatively their salaries compare with those of people in the private sector and other government departments. That is perhaps the reason why some teachers embark on second jobs, mostly to the detriment of the school and the learners. Al-Qaryoti and Al-Khateeb (2006) also found a relationship between teacher’s salary satisfaction and their burnout. Teachers of some school subjects may be more stressed than teachers generally (Bergin & Solman, 1988; Friesen & Sarros, 1989; Hamann, 1990; Sarros & Friesen, 1987). There is some evidence that music teachers could be one of these more stressed groups (Malik, 1970).

The relationship between job satisfaction and occupational stress has been well established in the literature as a negative one. That is to say, higher job satisfaction is related to lower occupational stress, and vice versa (Bhatti et al., 2011; Burke & Greenglass, 1994; Davis & Wilson, 2000; Day, Bedeian & Conte, 1998; Manthei & Gilmore, 1996; McCormick, 1997b; Murphy & Schoenborn, 1989). Mishra (1987), Srivastava (1987), Penn, Romano, & Foat (1988), Parsa, Alizadeh, & Kasraie (2013) found a significant negative relation between occupational stress and job satisfaction. In addition to this, a statistically significant negative correlation between stress and job satisfaction has been observed by Ostroff (1992) in her study of job satisfaction, attitudes, and performance in schools. The findings are in corroboration to Carr (1993), and Decker and Borgen (1993) who also noted a correlation between burnout and job satisfaction.

Studies examining the dimensions of job satisfaction and stress variables have shown that stress factors, such as role ambiguity, role conflict and role overload have differing strengths of relationships with job satisfaction, though the direction of the relationships are generally still negative (Ray & Miller, 1991; Smith & Bourke, 1992; Starnaman & Miller, 1992). For example, Curivan (2000) reported that role ambiguity was more strongly related to job satisfaction than role conflict. In another study, role ambiguity and role conflict had relationships of various strength with extrinsic and intrinsic job satisfaction (Summers, DeCotiis, & DeNisi, 1995). Despite
the differences in terminology and measurement, most studies have obtained significant negative relationships between role conflict and/or role ambiguity and job satisfaction (Greene & Organ, 1973; Kahn et al., 1964; Lyons, 1971; Rizzo, House, & Lirtzman, 1970). Tosi (1971), however, failed to find a significant relationship between role conflict and job satisfaction. Thus, a direction of causality cannot be specified for job satisfaction and occupational stress. They influence one another.

It is to be noted that Herzberg’s two-factor theory posits that job satisfaction comes from one set of job variables (called motivator needs or satisfiers) and job dissatisfaction from another set of variables (hygiene factors or dissatisfiers). Satisfiers include recognition, responsibility for one’s work, personal growth, achievement and advancement, while dissatisfiers include other aspects of work external to the self, such as pay, relationships with colleagues and supervisors, work conditions and security (Herzberg, 1968). Most interestingly, this theory considers job satisfaction and job dissatisfaction as separate constructs. The absence of hygiene factors was believed to lead to job dissatisfaction, but their fulfillment did not lead to job satisfaction. Similarly, the presence of motivator needs led to job satisfaction, but their absence did not lead to dissatisfaction. Also, teachers reporting higher job satisfaction were more likely to identify stress arising from personal issues as sources of stress. Corrigan, Holmes and Luchins (1995) reported that satisfaction with collegial support was associated with diminished burnout. Teachers’ satisfaction is generally determined by school factors, community factors and the characteristics of the teacher (Appiah-Agyekum, Suapim, & Peprah, 2013); and the greatest sources of job satisfaction among teachers include healthy school environments, favorable workplace conditions, supportive school administrations and adequate parental supports, and proper salaries and fringe benefits (Adams, 1992).

Also, occupational stress can make teachers dissatisfied and weaken/ lower their work values. If an organization can provide individuals with the basic elements they value, stress is reduced (Knoop, 1994b). Besides, the meaning attached to work has been changing through the developmental stage of human society. Work is considered something that is physical in nature and included the kinds of activities one is obliged ‘to do’. Ideally, work consists of activities through which one may realize his complex values. Values are capable of being structurally organized within
the individual and the society not only in terms of priority, but also in terms of extensiveness of adherence to any particular value and consistency (Williams, 1970).

Work related values include those motivationally relevant factors which energize and sustain human behavior at work. These work values assist in defining career paths and goals (Brown et al., 2002). Work related values, therefore, cover the broad context of motivation in organization. Responsibility theory (McCormick, 2000) that explains teacher occupational stress, posits that teachers blame their occupational stress on various aspects of the work environment (McCormick & Solman, 1992a) and that, factors of the work environment (such as students, school administration and the school system) are separate work domains to which teachers may attribute their stress (McCormick, 1997a; 1997b; 2000). In this vein, stressors such as work relationship, work-life balance, job overload, job control, job security, pay and benefits, resources and communication, as well as aspects of the job could also be the source of pressure in the workplace (Makhbul & Khairuddin, 2013).

Organizational culture embraces the values, character, attitudes, language and beliefs of an organization. Most organizational cultures consist of a dominant culture that signifies the core values shared by the majority of the organization’s members, and many subcultures that reflect common experiences and difficulties shared by smaller groups of members (Robbins et al., 1994). The climate that persists in the organization can be potential source of stressors. The freedom given to plan the work, weightage given to the views and opinions, participation in decision making, sense of belonging, free and fair communication and sympathetic approach towards personal problems were considered to measure the stressors in organizational climate.

Organizational commitment is one of the most important job-related outcomes that is attitudinal in nature and is negatively related to work stress in many studies conducted by different researchers (Jackson & Schuler, 1985; Sager, 1994), which means higher the work stress, lower the level of organizational commitment. Yousef (2002) found that role ambiguity which is considered as one of the stressors, directly and negatively influenced the organizational commitment i.e. affective and continuance commitments. Interestingly, Shirotriya and Quraishi (2013) observed job work load, job work ambiguity, job work conflict, job work pressure, under job work participation, powerlessness, work job peer relations, intrinsic impoverishment, job work support, strenuous job work conditions, on job recognition, infrastructure and
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equipments, on job development opportunities, and prevailing misconceptions to be the major causes of occupational stress for physical education teachers.

Merbler, Schlichte, and Yssel (2005) found that when relationships are poor, attrition is increased. This sentiment has been echoed in the finding by the researchers (Betoret, 2006; Le Blanc et al., 2001, Montgomery & Rupp, 2005; Teven, 2007) that where collegial relationships were seen as supportive and a resource, rather than as an obstacle or hindrance, burnout levels were lower. Abbey and Esposito (1985) observed that teachers who perceive greater social support from their principals’ report less stress than those who do not receive any social support. The research conducted by Shea (1990) put forth that teacher who gets support from experienced parents of students and colleagues show lighter stress reactions. Studies of teachers have produced equivocal results. Pierce and Molloy (1990) found that high burnout teachers reported lower social support than did low burnout teachers. Setting up shared decision-making processes in schools, such as governance councils, allows teachers to participate in school processes rather than feel subordinate to their principals and coerced into participating in school and teacher responsibilities (Nagel & Brown, 2003). Competition amongst colleagues and differences in personality clashes amongst fellow workers can give rise to stress (Cartwright & Cooper, 1997).

On the other hand, Sheffield, Dobbie and Carroll (1994) reported that social support did not affect the impact of teacher stress on psychological well-being. Significant indicators of job satisfaction which emerged from Mwamwenda’s study (1995) included positive relationships between teachers and principals, colleagues, learners, and parents; holidays; learner’s results and achievements. According to Sutherland and Cooper (1990), the quality of interpersonal relationships at work is important in that supportive relationships are less likely to create pressures associated with rivalry, bickering and gossip mongering. In addition, the superior-subordinate relationship can be potentially stressful when the leadership style is authoritarian, lacks understanding that feedback about performance and recognition and praise for effort are beneficial for boss-subordinate relationship. In conjunction with this, Cartwright and Cooper (1997) indicate that in situations where the relationship between supervisor and subordinate is psychologically unhealthy, problems of emotional instability may occur. Clearly, a key predictor of stress, burnout and eventually attrition is the relationships between colleagues.
Although classroom discipline is a well documented source of teacher stress (Lewis, 1999), this situation is exacerbated when teachers are faced with having to deal with pupil-teacher ratios of 1050:15 (Webb, 2005). Empirical evidence indicates that a teacher's personality influences the classroom climate, students' behaviors, and their interpersonal relationships (Shukla, 2013). Several authors (Burke, Greenglass & Schwarzer, 1996; Byrne, 1993) indicated overall classroom climate and student discipline problems were cited as among the most powerful factors that contribute to teacher burnout. Because, as the quality of the classroom climate gets worse, teachers can become emotionally exhausted, develop negative attitudes toward their students and their job, and accomplish few educational goals for their students. As compared to the large body of literature that focuses on positive teacher communication behaviors, fewer studies have been done on negative teacher communication behaviors (Wanzer & McCroskey, 1998). Kyriacou (2001) suggests that few studies have examined the impact of pupil behavior problems and pupil-teacher interaction on teacher stress.

According to Abidin and Kmetz (1997), teacher-student relationships are one of the factors that influence teachers' stress, and the stresses developed by teachers are reflected in their behavior towards students. They further added, if teachers' stress levels increase, this will decrease their positive behavior towards the students, and the teacher will avoid contact or ignore the students. The more stress induced by the students, the less engaged the teacher will be with the students, affects the teacher-student relationship (Abidin & Kmetz, 1997). Class discipline and student misbehavior has been noted as a main factor contributing to teacher burnout and discontent (Zeidner, 1988). Moreover, the research shows that behavioral problems significantly correlate with teacher stress and perceptions of control (Pullis, 1992).

The Pupil Control Ideology (PCI) has become one of the major instruments used by researchers to examine school climate and pupil control orientation (Anderson, 1982). PCI is a measure of ideology concerning pupil control rather than controlling behavior. The role of the assistant principal is characterized as custodial in nature and one that deal with discipline, coordination behavior (Reed & Hirnmler, 1985). Teachers who become burned out may be less sympathetic toward students, may have a lower tolerance for frustration in the classroom, may plan for their classes less often or less carefully, may fantasize or actually plan on leaving the profession,
may feel frequent emotional or physical exhaustion, may feel anxious, irritable, depressed, and in general, may feel less committed and dedicated to their work (Farber & Miller, 1981). On the contrary, a humanistic orientation is related to low dogmatism, acceptance of others, and high teacher creativity (Brenneman, 1975; Halpin, Goldenberg, & Halpin, 1974; Lunenburg & O’ Reilly, 1974). Further, a humanistic orientation has been found to be related to positive feelings toward teachers among elementary school students (Lunenburg & Stouten, 1983) and positive attitudes toward school among secondary school students (Pritchett & Willower, 1975). Student-centered verbal behavior and the use of innovative classroom practices have also been found to be related to a humanistic ideology, as measured by the PCI, among classroom teachers (Willower, 1975).

Research has found that student misbehavior affects teacher stress, well-being, and confidence (Lewis et al., 2003; Little & Hudson, 1998; Miller, Ferguson, & Byrne, 2000; Poulou & Norwich, 2000). Significant correlations were found among teacher stress and negative relationships between teacher and student (Yoon, 2002). Teacher stress arises from being unable to discipline pupils in the way they would prefer (Lewis, 1999).

To sum up, teaching is indicated as an occupation which is always demanding and changing (Claxton, 1989), so there has been interest in teachers job stress at different schools and universities (Leung, Siu, & Spector, 2000). A third of all teachers, approximately, will find their occupation extremely stressful (Borg, 1990; Broiles, 1982; Friesen, Prokop & Sarros, 1988; Gold & Roth, 1993). It therefore, becomes necessary to get a deeper knowledge of antecedents and consequences of teachers’ stress.

Our country has put a high expectation in our school teachers. They are perceived as the architect, designer, and saver of the future generations. A teacher is seen as a counselor to students and parents both, is also sometimes a nurse, a social worker, and even to some degree a parent for the students that are under his/her tutelage. With the increasing number of roles that students and parents ask from teachers, as well as the requirements from the local Boards of education and State Departments of Education across the nation, it is no wonder that teaching is not an easy job as what other people think and perceive. However, it is equally true that teacher stress is on a steady increase. Stress among teachers’ affects the performance
of schools because teachers who are burdened by stress will not be in a position to teach students in an optimal manner due to stress which makes them to have apathy towards their work. Therefore, the study seeks to identify causes of stress in secondary schools and identify remedial measures toward the same.

Due to the insufficiency of empirical studies on the causal factors of stress in the secondary schools, this study wants to have an empirical evidence of the stress causing factors like demographic factors, job satisfaction, teachers work values and pupil control ideology among the secondary school teachers. Conceptually, they appear to influence the teachers’ occupational stress but their influence has not yet been empirically studied adequately in India, especially work values and pupil control ideology. Determination of these factors in this study will generate empirical data which could be of value to policy and decision makers, and to school administrators and other professional associations in the education sector of India. It is for this reason that the researcher deemed it necessary to investigate the relationship among the various factors associated with stress among teachers of the secondary schools in Uttar Pradesh District.

1.2 Statement of the Problem

"An investigation into the relationship among Teacher’s Occupational Stress, Job Satisfaction, Work Values and Pupil Control Ideology”.

1.3 Objectives of the Study

The purpose of this research study is to investigate the relationship among teacher’s occupational stress, job satisfaction, work values and pupil control ideology. Against this background the following were the aims and objectives of the present study:

1. To develop two standard tools of research, namely Teachers Occupational Stress Scale and Teachers Job Satisfaction Scale, which will prove as valuable additions to the psychometric units of Indian Universities and abroad also.

2. To study the general pattern of occupational stress of secondary school teachers.

3. To study the combined and individual effect of demographic factors on teachers’ stress toward their occupation.
4. To study the relationship between occupational stress of secondary school teachers and their demographic factors.

5. To study the combined and individual effect of job satisfaction and pupil control ideology on teachers' stress toward their occupation.


7. To study the combined and individual effect of work values on teachers' stress toward their occupation.

8. To explore the relationship between occupational stress of secondary school teachers and their preferences of work values.


10. To point out the main educational implications of this study.

The main purpose of this study is broadly stated to investigate the relationship among secondary school teacher’s occupational stress, demographic factors, job satisfaction, work values and pupil control ideology. In this study demographic factors and work values have been taken in the sense as:

➢ Demographic factors include: Gender, teaching experience, qualification, salary and subjects taught by teachers.

➢ Work values include: Good economic return, high status/ prestige, opportunities of human/ social service, friendly/ cooperating colleagues, security of service, fair/ sympathetic supervisions, opportunities of further progress/ advancement, opportunities of intellectual stimulation, work consistent with my (teacher’s) life goals/ values, opportunities of exercising power/ authority, freedom in my (teacher’s) work.

1.4 Questions posed for the study

In this study of teachers occupational stress in relation to their demographic factors, job satisfaction, work values and pupil control ideology, certain pertinent questions arise which may be stated as under:

1. What is the reliability and validity of the developed tools i.e., Teachers Occupational Stress Scale and Teachers Job Satisfaction Scale?
2. What is the general pattern of secondary school teachers’ stress toward their occupation?

3. Do predictor demographic factors explain the differences in mean occupational stress score of teachers?

4. Do demographic factors explain the differences in mean occupational stress score of teachers?

5. Do predictor factors (job satisfaction and pupil control ideology) explain the differences in mean occupational stress score of teachers?

6. Does job satisfaction explain the differences in mean occupational stress score of teachers?

7. Do predictor factors of work values explain the differences in mean occupational stress score of teachers?

8. Do work values explain the differences in mean occupational stress score of teachers?

9. Does pupil control ideology explain the differences in mean occupational stress score of teachers?

1.5 Hypotheses of the study

In order to give proper direction to the investigation, it was thought necessary to formulate certain hypotheses which may be tested in this study. The investigator was guided by the results of previous researches in this area, theoretical viewpoints available in related literature and investigator's intuitive understanding and insight. For the present study, the hypotheses have desirably to be stated in the null-form, except the first one which is stated in the statement form. The reason is obvious, when they are conceived as research hypotheses they are generally stated in the form of statements, but when they are conceived as statistical hypotheses, usually they take the form of null-hypotheses.

The following null-hypotheses have been constructed for testing throughout the study. The confidence interval set up for the purpose of accepting or rejecting the hypotheses in the study is 0.05 and 0.01 levels. The reason for fixing the rigorous limit is discussed in Chapter 3. Common practice in this regard, is to set-up a region of 0.05 and 0.01 levels. The following hypotheses were established:

1. The secondary school teachers, in general, experience more stress toward their occupation.
2. The predictor demographic factors are not the significant predictors of teachers' stress toward their occupation.

3. There is no significant difference in occupational stress in relation to demographic factors of the teachers’.

4. The predictor factors (job satisfaction and pupil control ideology) are not the significant predictors of teachers' stress toward their occupation.

5. There is no significant difference in occupational stress in relation to job satisfaction of the teachers’.

6. The predictor factors of work values are not the significant predictors of teachers’ stress toward their occupation.

7. There is no significant difference in occupational stress in relation to the perception of teachers’ work values.

8. There is no significant difference in occupational stress in relation to pupil control ideology of the teachers’.

1.6 Definition of the terms

Some terms and concepts have been repeatedly used in this study owing to the unfortunate situation that those terminologies in behavioral sciences have not yet attended a standardized form. It appears necessary that their definitions as accepted for this study are given so that any term may not mean different things to different readers of the thesis. It is obvious that the investigator has not coined her own definitions, but has for each term selected the one from those given in standard text books which were found to have best solved the purposes of the present study.

1.6.1 Dependent and independent variables

The terms ‘dependent variable’ and ‘independent variable’ have been borrowed from the field of math in behavioral researches. The dependent variable (DV) is defined as one about which the experimenter makes a prediction. Infact, the dependent variable is the participant’s response that is measured, and is the outcome of experiment. The independent variable (IV) is defined as one which is measured, manipulated or selected by the experimenter to determine its relationship to an observed phenomenon (or DV). In a research study, the independent variable defines a principal focus of research interest. It is the consequent variable that is presumably affected by one or more independent variables that are either manipulated by the
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researcher or observed by the researcher and regarded as antecedent conditions that determine the value of the dependent variable (Jaeger, 1990). The DV is the variable predicted to, whereas the IV is predicted from. The DV is the presumed effect, which varies with changes or variation in the independent variable. Thus, DV responds to the IV and is called 'dependent' as it depends on the independent variable.

In the present study, the demographic factors, job satisfaction, work values and pupil control ideology constitute the independent variables, whereas the occupational stress of teachers constitute the dependent variable.

1.6.2 Teacher

A person employed in an official capacity for the purpose of guiding and directing the learning experiences of pupils/students in an educational institution. Teacher is a person who has completed a professional curriculum in a teacher education institution and whose training has been officially recognized by the award of an appropriate teaching certificate, and has been found capable of instructing others (Good & Merkel, 1973). The word 'teacher' is used to describe a person who because of rich or unusual experience or education or both in a given field is able to contribute to the growth and development of other persons who come in contact with him/her.

A teacher is the central figure in the formal teaching learning set up. He is the ultimate agent who dispenses knowledge, frames the time schedule, selects reading materials and evaluates learning outcomes, helps pupils to overcome their difficulties and personal problems. A teacher is the only person responsible to set the standards, builds up desirable attitudes, and approves or disapproves pupil behaviors. The prime aim of a teacher concerns with molding the raw material (the pupils) into the refined product (the future citizens). As such, it is apt to say that the destiny of India is being shaped in her classrooms (Education Commission of India, 1966).

1.6.3 Secondary Schools

The schooling system in India is divided into three levels, i.e. primary (nursery to class V), secondary (class VI to class X), and senior secondary (class XI and XII). Some states refer to Standards (Grades) IX and X as High School, while XI and XII are termed as Intermediate. These schools may be affiliated to national boards/Councils like Central Board of Secondary Education (CBSE), Council for the Indian School Certificate Examination (CISCE) or National Institute of Open Schooling.
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(НИО) or various state boards. Usually, students from ages 14 to 18 study in this section.

Secondary school which serves as a step towards preparation for higher and professional education has been described by The New International Webster's Comprehensive Dictionary of English Language as, “high school or preparatory school beyond the elementary or primary, and below the college level”. The education at secondary level consists of subjects like mother tongue, national language, mathematics, science, social science, hindi and english together with arts and crafts for all students. There is no personal choice in the subjects and the pattern of education in general. In class X there is a public examination known as matriculation examination conducted by the School Education Board of the concerned state.

The schools, thus, imparting education till secondary level are clubbed under the head secondary schools. Hence, secondary school is the stage where education that follows the typically compulsory, comprehensive primary education is imparted. It is a school that is intermediary in level between elementary school and college, and that usually offers general, technical, vocational, or college preparatory curricula. Therefore, in this study, those teachers who were teaching 9th and 10th secondary stages were considered as secondary school teachers.

On the other hand, senior secondary school is a school where young persons prepare for employment, provision for the introduction of different types of vocational courses is made, and follows a uniform structure of 10+2 i.e. 12 years. Furthermore, a public examination is conducted at the national or state levels at the end of the higher secondary stage.

1.6.4 Stress

The word stress is derived from the Latin word “strictus”, which means “to tighten” (Jex, 1998). Stress, in general, can be defined as the reaction of individuals to demands (stressors) imposed upon them (Erkutlu & Chafra, 2006). These researchers used the term stress, to refer to situations where the well-being of individuals is detrimentally affected by their failure to cope with the demands of their environment. Stress was described by researchers in the 1950s as “response to internal or external processes which reach those thresholds levels that strains its physical and psychological integration capacities to; or beyond their limit” (Basowitz et al., 1955).
Stress can be viewed as an “adaptive response, mediated by individual characteristics and/or psychological processes, that is the consequence of any external action, situation or event that places special physical and/psychological demands upon a person” (Ivancevich & Matteson, 1980).

Stress is defined as “a state of tension that arises from an actual or perceived demand that calls for an adjustment or adaptive behaviour” (Olson et al., 1989). Allen (2002) claimed that stress is a feeling we experience, when we lose confidence in our capability to cope with a situation. It is a state characterized by high levels of arousal and distress and often by feelings of not coping. Stress is defined as a condition of negative affects (e.g. anger) resulting from aspects of the teacher’s job which are perceived by the teacher as a threat to his/her psychological or physical well-being (Kyriacou & Sutcliffe, 1978a).

Sorenson (2007) states, “Stress is a condition of twenty-first-century education that continues to increase as more accountability standards and new policy initiatives are introduced”. Further, Kruger (1992) maintains that “stress is a phenomenon that manifests in the individual person as a result of various stressors that arise from the self and the environment and affect the individual person in accordance with the way in which he or she attributes meaning to the events, stimuli or demands affecting him or her, and in accordance with the way in which he or she experiences and enters into or handles such events, stimuli or demands”. On the other hand, distress is negative or destructive stress, as it causes serious ailments or discomforts (Keiper & Buselle, 1996). It impacts negatively on the organisation and the individual’s physical and mental system. This could result in reduced performance, absenteeism, errors, job losses, accidents, unethical behaviour, dissatisfaction and illness (Schermherhorn et al., 2000).

1.6.5 Occupational Stress

Occupational Stress, also known as job stress, has been defined as the experience of negative emotional states such as frustration, worry, anxiety and depression attributed to work related factors (Kyriacou, 2001). It is a mental and physical condition which affects an individual’s productivity, effectiveness, personal health and quality of work (Comish & Swindle, 1994). Geese and Moss (2001) define the occupational stress as a mutual action between the working conditions and
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individual features of a worker. It is defined as a result of imbalance between job demands and workers' capabilities. Also, harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker, can be termed as occupational stress (NIOSH, 2008). Occupational stress is an individual experience, depending on the traits of individuals, in that not all people react to events the same way (Manthei & Gilmore, 1996; McKenna, 1987). Bendell et al. (1986) state that occupational stress is a potential tormenting reaction which the worker shows towards a stressogenic factor. Occupational role stress is considered as an unpleasant emotion, which manifests itself through tension, frustration, anxiety, anger and depression. All these emotions are the result of different aspects of working environment and personal lives of the universities teachers (Khurshid, 2008).

According to Okebukola and Jegede (1989), occupational stress is defined as “a condition of mental and physical exertion brought about as a result of harassing events or dissatisfying elements or general features of the working environment.” Whereas, Leka, Griffiths, and Cox (2004) refers to occupational stress as “the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope”. Occupational stress arises from a discrepancy between the teacher's work needs, values, and expectations and the failure of the work environment to provide occupational rewards, job demands and the capacity of the worker to meet these requirements (Cooper, 1981).

1.6.6 Teachers' Occupational Stress

Teacher stress has been viewed as an interactive process which occurs between teachers and their teaching environment which leads to excessive demands being placed on them and resulting in physiological and psychological distress (Forlin, Douglas & Hattie, 1996). Teacher stress can also be demarcated as the occurrence of perceived negative situations that result in adverse teacher reactions or behaviors. The three main stressors that result in teacher stress are environmental, interpersonal and intrapersonal stress (Swick & Hanley, 1985). Also, Borg (1990) has conceptualized teacher stress as a negative and potentially harmful to teachers' health. The key element in the definition is the teacher's perception of threat based on the three aspects of his job circumstances, which could be summed up as – (1) that
demands are being made on him, (2) that he is unable to meet or has difficulty in meeting these demands, and (3) that failure to meet these demands threatens his mental/physical well-being. Maslach and Jackson (1984) defined teacher stress as an uncomfortable feeling, negative emotion such as anger, anxiety and pressure which originated from their work. Teacher stress is defined by Kyriacou (1987) as "the experience by a teacher of unpleasant emotions, such as tension, frustration, anxiety, anger, and depression, resulting from aspects of work as a teacher". Teachers' occupational stress for the present study will mean a multi-dimensional concept composed of factors within the individual, the institution, nature of work place and society that leads to the lowering of feelings of personal self-worth, achievement, effectiveness and coping within one's professional role.

1.6.7 Burnout

Burnout is a distressed psychological state; a person suffering from burnout is emotionally exhausted, has low work motivation; it involves being depressed about work and having little energy and enthusiasm for the job (Spector, 2000). It has been opined that burnout is an affective reaction due to prolonged exposure to job stress (Maslach & Schaufeli, 1993; Maslach, Schaufeli, & Leiter, 2001). Burnout lacked definitional clarity until the development of a widely accepted instrument for its measurement, the Maslach Burnout Inventory (MBI; Cordes & Dougherty, 1993). Burnout is discussed as a "state of fatigue or frustration brought about by devotion to a cause, a way of life, or a relationship that failed to produce the expected reward" (Freudenberger & Richelson, 1980). The MBI conceptualized burnout as a "syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity" (Maslach & Jackson, 1996). These researchers further reported that low degree of emotional exhaustion and depersonalization, and a high degree of personal accomplishment reflect a low level of burnout; high degree of emotional exhaustion and depersonalization coupled with low degree of personal accomplishment reflect a high level of burnout; while average degrees of all three dimensions represent a moderate level of burnout.

Thus, burnout contains three job related dimensions:

- **Emotional exhaustion**: The emotional lassitude a person experiences when they are fatigued and frustrated
• **Depersonalization**: A person's tendency to isolate themselves from others, and
• **Personal accomplishments**: The person's self-evaluation of their own work

Emotional exhaustion is often most measured; covering feelings of job-related strain, being used up; fatigued and working too hard. It is the depletion of emotional energy and a feeling that one's emotional resources are inadequate to deal with the pressures encountered (Warr, 2002). Depersonalization is the development of a cynical and callous feeling towards others (Spector, 2000). It is an excessive detachment from people with whom one works, treating individuals in the work setting (eg. Clients or patients) as objects rather than people (O'Driscoll & Cooper, 2002). Reduced personal accomplishment is the feeling that the employee is not accomplishing anything worthwhile at work (Spector, 2000); by evaluating one's performance negatively, it leads to feelings of incompetence and inability to achieve goals (O’ Driscoll & Cooper, 2002).

Some researchers (Capel, 1987; Carpel, 1992; Jenkins & Calhoun, 1991) have begun to acknowledge the difference between the two concepts (stress and burnout) and do not use the terms interchangeably. Burnout is implied to have evolved from stress, low salaries, increased teacher loads, reduction in force, lack of involvement in program planning, and a myriad of other factors (Chapman & Green, 1986; Chase, 1986).

### 1.6.8 Coping with Teacher Stress

Many students are taught by teachers whose competence is reduced because of high levels of stress. Being personally destructive, coping with stress successfully requires restructuring efforts, such as, increased levels of commitment to school goals (Fullan, 1993); greater sensitivity by teachers to the diverse needs of their students and an expanded and more flexible instructional repertoire (Murphy, 1991); more collaborative working relations with fellow teachers (Liberman, Saxl, & Miles, 1988) as well as with students and parents (Connors & Epstein, 1994). Kyriacou (1980a) in his study showed that the most frequently used coping actions included trying to keep things in perspective, to avoid confrontations and to relax at work.

Teachers say they become more able to manage stress, however, even in the face of organizational constraints, if they have a substantial voice in deciding and initiating stress management strategies. Stress-management research conducted by
several researchers (Bunce & West, 1996; Cahill & Feldman, 1988; Forman, 1981; Ganster et al., 1982; Higgins, 1986; Pines & Aronson, 1983; Reynolds, Taylor, & Shapiro, 1993) found that many successful intervention programs begin by building participants’ knowledge and awareness of stress and burnout. These awareness sessions presented in a non-threatening environment provide participants with updated information about the nature, signs, causes, and symptoms of stress.

In order to decrease stress among teachers it is recommended to improve their working conditions, decrease their weekly lesson loads to get them work more efficiently, promote sport activities, integrate them in social and cultural activities, and improve their financial opportunities. Conferences, seminars, workshops, etc. must be organized to inform teachers on these subjects so as to decrease the stress in them. Cognitive restructuring and positively reappraising the situation may help alleviate physical and emotional exhaustion, and enhance a sense of personal achievement. Also, the readiness to seek support from others may help teachers guard against becoming depersonalized, and the use of task-related and interpersonal problem-solving may also increase the sense of personal achievement.

1.6.9 Demographic Factors

Socio-economic characteristics of a population expressed statistically, such as age, sex, education level, income level, marital status, occupation, religion, birth rate, death rate, average size of a family, average age at marriage. The best example of demographic factors is a census, which is a collection of the demographic factors associated with very member of a population.

1.6.9.1 Gender

Gender regime is defined as “the pattern of practices that constructs various kinds of masculinity and femininity among staff and students, orders them in terms of prestige and power, and constructs a sexual division of labor within the institution” (Kessler et al., 1985). The authors further said, the school is an institution that is characterized at any given time by a particular gender regime. As Connell (2002) noted, when we look at a set of gender arrangements, whether the gender regime of an institution or the gender order of a whole society, we are basically looking at a set of relationships—ways that people, groups and organizations are connected and divided. The term gender difference is used throughout the thesis and its meaning is
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synonymous with sex difference. That is, gender here refers simply to boy or girl, male or female in the sense they are generally understood.

1.6.9.2 Teaching Experience

Teaching experience is termed as the accumulation of acquired knowledge, attitudes or skills that results from one’s own perception and direct participation in events or activities. Years of experience has also been described as tenure, number of years teaching or length of service (Bedeian, Ferris, & Kacmar, 1992; Crossman & Harris, 2006; Klecker, 1997).

1.6.9.3 Qualification

Academic qualification is the standard of one’s academic background. Such qualification is asked for applying any job. Getting job as per one’s academic qualification will satisfy him/ her; on the other hand if some one’s job is inferior to his/ her academic qualification, it brings dissatisfaction to him or her. This would result into stress. Academic qualification is the prime factor of being qualified to be recruited as teachers in government/ private schools of India.

1.6.9.4 Salary

Salary is referred to the periodic wage paid to someone for work; or wages received on a regular basis, may be weekly, bi-weekly or monthly. Sometimes the term is used to include other benefits, including insurance and a retirement plan.

1.6.9.5 Subjects taught

Teachers possess command over their teaching subjects. Basically four subjects, namely, languages, arts, sciences and social sciences have been included in this study. Languages as a subject refer to a set of language whose grammar permits an independent clause to lack an explicit subject. Of the thousands of languages in the world, Hindi and English are most commonly taught by the teachers in India. Arts, usually referred to as fine arts deals with the art forms developed primarily for aesthetics and/ or concept rather than utility. Arts as a subject includes music, dance, drawing, visual arts, etc.

Science is a systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the universe. In general, science refers to the body of reliable knowledge itself, of the type that can be logically and
rationally explained. Science is any systematic knowledge-base or prescriptive practice that is capable of resulting in a prediction. Science is a continuing effort to discover and increase human knowledge and understanding through disciplined research. The single most important principle of science education is to instruct students to identify assumptions, use critical thinking, make logical deductions, and consider alternative explanations. Subjects like mathematics, chemistry, biology, physics, geography, computer fall under the subject Science.

_Social Sciences_ is concerned with the study of society and human behaviors, and social life of human groups and individuals. Most commonly, social science is used as an umbrella term to refer to a plurality of fields outside of the natural sciences, which include anthropology, archaeology, economics, education, linguistics, political science, sociology, geography, history, law and psychology.

### 1.6.10 Attitude

An attitude is a hypothetical construct that represents an individual’s degree of like or dislike for an item. Attitudes are generally positive or negative views regarding person, place, thing or event. On this note, Le Roux (1994) termed attitude as, “a positive or negative emotional relationship with or predisposition toward an object, institution or person”. According to International Dictionary of Education, the term attitude may be defined as, “predisposition to perceive, feel or behave towards specific objects or certain people in a particular manner”. Attitudes are thought to be derived from experience rather than innate characteristics, which suggest that they can be modified.

Ajzen and Fishbein (1977) explained that by understanding an individual’s attitude towards something, one can predict with high precision the individual’s overall pattern of behavior to the object. In general, attitude may be defined as; enduring non-verbal features of social and physical world acquired through experience and exert a directive influence on behavior (Berckler & Wiggins, 1991). These definitions suggest that attitude can be understood as an emotion that has an influence on the behavior of human beings. Attitude, thus, affects people in everything they do and in fact reflects what they are, and hence a determining factor of people’s behavior.
1.6.11 Job Satisfaction

The term ‘job satisfaction’ was first utilized by Hoppock (1935), referring to a combination of psychological, physiological and environmental circumstances that make a person feel satisfied with his job. It is a general attitude towards one’s job; the difference between the amount of rewards workers receive, and the amount they believe they should receive. This attitude results from balancing and summation of many specific likes and dislikes experienced in connection with a job. Job satisfaction is the favourableness experienced with which employees view a job. Job satisfaction has been defined as the extent to which a staff member has favourable or positive feelings about work or the work environment (De Nobile, 2003). It refers to the positive attitudes or emotional dispositions people may gain from work or through aspects of work (Furnham, 1997; Locke, 1976). Conversely, job dissatisfaction refers to unhappy or negative feelings about work or the work environment (Furnham, 1997). Job satisfaction is defined as a positive emotional state that results from appraisal of one’s job situation and is linked to the characteristics and demands of one’s work (Arches, 1991; Butler, 1990; Dressel, 1982).

Job satisfaction results when a job fulfills or facilitates the organizational attainment of individual’s values and standards, and on the other hand dissatisfaction occurs when the job is seen blocking such attainment (Locke & Latham, 1990). On this note, Herzberg (1968) found five factors that intended to influence job satisfaction positively: (1) achievement, (2) recognition, (3) work itself, (4) responsibility, and (5) advancement. Factors, which if inadequate tended to support job dissatisfaction were: (1) salary, (2) possibility of growth, (3) interpersonal relations (subordinates), (4) status, (5) interpersonal relations (superiors), (6) interpersonal relations (peers), (7) supervision—technical, (8) company policy and administration, (9) working conditions, (10) personal life, and (11) job security. In teaching profession, distress has been linked to dissatisfaction with job and to negative affective and professional consequences (Ruma et al., 2010; Eichinger, 2000).

Job characteristics which cause stress consist of the following three dimensions:
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- **Role Conflict**: This indicates the degree to which an employee is experiencing incompatible role demands and loyalties at work.

- **Role Ambiguity**: This indicates the extent to which the priorities, expectations, and evaluation criteria are not clear to the employee.

- **Role Overload**: This indicates the degree to which job demands exceed personal and workplace resources, and the extent to which an employee is unable to complete expected work assignments.

1.6.12 Values

There is no definitive correct definition of values (Haydon, 2007), arguing it is 'not a technical term' being more 'part of the experience of everyone' (Haydon, 2007). Carr (2004) asserts they are rational dispositions or principled preferences. In contrast to this, the National College of School Leadership (Flintham, 2006) suggests values are often deeply held but they are not necessarily rational. Aspin (2000) argues that values are embedded and embodied in everything we do, as part of the warp and weft of ourself and our community's whole form of life. Values can come with any degree of abstractness, or concreteness, generality or specificity (Haydon, 2007). An American psychologist, Milton Rokeach (1979), has written extensively on individual and organizational values, and thus, provides a useful framework within which the importance of personal values can be explored as:

*The ultimate function of values is to provide us with a set of standards to guide us in all our efforts, to satisfy our needs and at the same time maintain and in so far as possible, enhance self esteem, that is to make it possible to regard ourselves to be regarded by others as having satisfied societally and institutionally originating definitions of morality and competence.*

It is the stance the self takes to the environment as expressed through his behavior, ideas, body feelings and imagination. (Andres, 1980). In this study, it refers to work values.

1.6.12.1 Work Values

Work values are beliefs pertaining to desirable end-states (e.g. high pay) or behavior (e.g. working with people). Lee (1994) indicated that work values could be viewed as proportion of personal value systems; all evaluations and preferences related to work could be held as the expression of work values. Super (1980) defined work values as "an objective, either a psychological state, a relationship, or material
condition, that one seeks to attain”. The different work goals are ordered by their importance as guiding principles for evaluating work outcomes and settings, and for choosing among different work alternatives. Likewise, Elizur (1984) defined work values as, “the importance individuals give to a certain outcome obtained at work context”. Furthermore, Zytowski (1994) noted that work values often refer to positive reinforcers of job satisfaction.

Because work values are constructs that refer only to goals in the work setting, they are more specific than basic individual values. But the work values usually studied are still quite broad. They refer to what a person wants out of work in general, rather than to the narrowly defined outcomes of particular jobs. As a final point, work values, like basic values, are verbal representations of individual, group, and interaction requirements.

The present study has identified a set of 11 work values among teachers in different schools, which could be defined as:

1. **Good Economic Return**: Describes the amount of financial remuneration that is received and the degree to which this is viewed as equitable vis-a-vis that of others in the institution. Refers to the financial dimension basically, and includes pay, fringe benefits and monetary rewards.

2. **High Status/ Prestige**: Refers to a position of superior status, social status, and prestige.

3. **Opportunities of Human/ Social Service**: The human service practitioner is a professional who acts as an agent to assist and or empower individuals, groups, families and communities to prevent, alleviate or better cope with crisis, change and stress to enable them to function more effectively in all areas of life and living.

4. **Friendly/ Cooperating Colleagues**: whether the job permits chances to make friends, whether co-workers are friendly and helpful and whether one’s co-workers take a personal interest in him/her. Valuation of this dimension reflects a worker’s desire for the satisfaction of social needs from the work activity. Collegial relations include the relationships between teachers within a school as well as the relationship between teachers and administrators.

5. **Security of Service**: Work which provides one with certainty of having a job even in hard times.

6. **Fair/ Sympathetic Supervisions**: Deals with the abilities of the supervisor to provide technical assistance and behavioral support.
7. **Opportunities of Further Progress/ Advancement**: Describes the chances for promotional avenues in the organization. In this study, it refers to the act or fact of being raised in position or rank, and giving a privilege for professional growth.

8. **Opportunities of Intellectual Stimulation**: Refers to excitement, novelty and challenge in life.

9. **Work consistent with my life Goals/ Values**: It is the extent to which the job provides the individual with interesting tasks, opportunities for learning, and the chance to accept responsibility.

10. **Opportunities of exercising Power/ Authority**: Describes the control or dominance over pupil and resources.

11. **Freedom in my work**: Refers to the condition of being free, and the power to act, speak or think without externally imposed restraints. It is the teacher's capacity to exercise choice, frankness or boldness, and free will without religious, political, or institutional restrictions.

Therefore, the researcher used the term “work values” to define the hierarchical organization of relatively stable needs, desires, and goals as applied to a teacher's world of work. Work values in the present study are operationally defined as enduring beliefs and standards that influence an individual when he/ she evaluate his/ her job and work environment.

### 1.6.13 Pupil Control Ideology

Pupil control orientation can be conceptualized as a point on a continuum ranging from authoritarian to humanistic (Willower, 1975). Teachers with a custodial (authoritarian) pupil control orientation stress the maintenance of order and strict pupil control, impersonality, one-way communication, distrust of students, and a punitive, moralistic attitude; while the teachers with a humanistic orientation emphasize the psychological and sociological bases of learning and behavior, open channels of communication, an accepting and trusting view of students, and confidence in students' ability to develop self-discipline and responsibility. An individual teacher's pupil control orientation may fall anywhere between these two extremes.

Educators classified as humanistic are patient, congenial, and easily approached by students. They are responsive to students' suggestions and ideas and
encourage pupil self-discipline and independence. In contrast to the humanistic orientation, the model of [authoritarian] orientation depicts a classroom atmosphere with a rigid and highly controlling setting concerned primarily with the maintenance of order (Willower, Eidell, & Hoy, 1973). In this model misbehaviour is viewed as a personal affront and students are perceived as persons who must be controlled through the application of punitive sanctions. Authoritarian educators manifest suspicion and distrust of pupils, often addressing them in an unpleasant and angry manner. They react personally and judgmentally toward students who misbehave (Lunenburg & Mankowsky, 2000).

The model for the custodial orientation is the traditional school in which behavior is rigid and tightly controlled; maintenance of order is a primary concern. Students are stereotyped in terms of their appearance, behavior, and parents' social status. Teachers do not attempt to understand student behavior; in fact, they view misbehavior in moralistic terms and as a personal affront. Students must accept the decisions of teachers without question. The flow of power and communication is unilateral and downward, and cynicism, impersonality, and watchful mistrust imbue the custodial orientation.

On the contrary, the model for the humanistic orientation is the school as a learning community in which members learn by cooperative interaction and experience. Interpersonal relationships are close, warm, and friendly. Learning and behavior are interpreted in psychological and sociological terms, not moralistic ones. Self-discipline and self-regulation are substituted for rigid and strict teacher control. Both teachers and students are willing to act upon their own volition and then accept responsibility for their actions.

Therefore, the researcher's operational definition of humanistic pupil control ideology refers to teachers who conceive of the school as a democratic organization with open channels of two-way communication between students and teachers and increased self-determination of students. A humanistic orientation is marked by optimism, openness, flexibility, understanding, and increased student self-determination, while custodial pupil control ideology means teachers who conceive of the school as an autocratic organization with a rigid pupil-status hierarchy. Teachers with a custodial orientation of pupil control view students as irresponsible and
undisciplined individuals who must be controlled by punitive sanctions. A secondary school teacher’s ideology may fall anywhere between these two major extremes.

1.7 Significance of the study

Stress at work has been singled out as an important area of investigation for the reasons being; most people spend a considerable amount of time at work, and work is important as a fundamental means for implementing and fulfilling personal aspirations and expectations (Yankelovich, 1979). Teachers play an extraordinarily important role in providing the support and guidance that students need as they set out to find their way in today’s world and society. Pressure, thus, has gone drastically for those engaged in the teaching profession. It is therefore, important to identify the factors which might further deplete our teaching force through early retirement or attrition in order to best support teachers. If educational systems fail to identify factors that contribute to teacher stress, the common masses would be reluctant towards teaching as a profession. Hence, demands for teachers may potentially become higher, which in turn will cause higher shortages and attrition.

Most of the educational administrators start their career as classroom teachers; therefore to have an understanding of the career-change process is important for human resource personnel and school policy makers, as well as educational researchers. Understanding this process implies an understanding of stressful factors which influence decisions and differentiate between different classes of decision-makers, particularly stayers and leavers. The conditions that create a stressful environment are present in most school systems, certainly some more than others. The long working hours, overcrowded classes, upset parents, limited resources, potentials for physical violence, and so forth go with the job of most teachers.

The tragedy is that like most formal organizations, educational systems typically tend to ignore the impact that stress has on administrators and teachers. The saddest fact is that dysfunctional stress is usually considered as a personal problem, for which those suffering must find their own way out. Thus, it is deemed important for studies be conducted on this matter in order to enrich information and to display statistical evidence for the consideration of the parties that are concerned with the educational systems.
Significance of the study lies in the notion that by examining the stress levels of secondary school teachers, one can better recognize the early signs of stress which may further lead to burnout, and take measures to prevent it, especially in “at risk” (high stress) groups. Also, the quality of education to most people is almost synonym to the quality of teaching. Accordingly, the quality of teaching depends largely on the characteristics of individuals serving as teachers, their training background, aspirations, experience, subject areas concerned; and no less important, their general state of physical and emotional well-being. Teachers play a pivotal role in the molding of the future generation envisioned by Vision 2020, so it is of paramount importance that the overall effectiveness of teachers as educators is not undermined by the stressors they encounter. Thus, it is obviously desirable for a systematic study and an inquiry into the phenomenon to be carried out.

To ensure that teachers perform to the best of their abilities, it is necessary to pay attention to their satisfaction levels. In this light, this study also sheds light on the relationship between teachers’ occupational stress and their job satisfactions. It becomes important for the management to secure information about these satisfied/dissatisfied teachers before making decisions that might affect them. This study thus, is a humble attempt to make school administrators and planners learn more about the organizational behavior as well. Therefore, they may be able to improve the job conditions and bring a direct benefit to teachers.

This research on work values and stress is significant because it will help the school administrators bring to light some of the problems and needs of the teachers of secondary schools, which are important in attracting and holding the teachers. The knowledge and awareness of their work values and stress may contribute to the creations of a harmonious relationship between teachers and personnel, thus encouraging the first to remain in the teaching profession. As a consequence, teaching will be elevated to a competitive status among other profession. They will perform better, exhibit positive attitudes and would be more enthusiastic in helping students.

Also, the need to control or direct is implicit in the job of teaching, and it seems important that teachers should learn to control their classrooms in the most humane and efficient manner possible. Another important implication of this study may be to determine if it is possible, the extent of pupil control orientations among secondary school teachers. It is well evidenced and documented that stress among
teachers, if not properly and adequately checked and diagnosed, could result in physical, psychological, social problems, hostility towards colleagues, students and family members.

Policy makers may use information on the impact of current organizational experiences on teachers’ work-related stress to modify their policies and procedures. Thus, those concerned with developing and providing pre-service and in-service education programs may also view the findings of the study as relevant. The lack of sympathy by the public towards teachers is due to the lack of understanding of the problems and grievances faced by teachers, perhaps. Thus, a systematic and an empirical inquiry into the phenomenon is obviously beneficial in view of shedding light and giving a better understanding and awareness to the educational administrators and the public as well.

Most of the work in the area of teacher stress has been done in developed countries but, not many studies are conducted in the Indian context that explores the teachers stress towards their occupation. On this note, this study would be beneficial as a few critical and interesting variables will also be included in the present study such as, whether there is any difference in the level of stress experienced by teachers with regard to the subjects taught – namely the teachers who teach languages, as compared to teachers who teach arts, science and social science; their work values and pupil control ideology.

Finally, the tools developed for the study might provide a means of assessing the work-related stress of teachers along with their job satisfactions. All the foregoing findings and discussions highlight the value of gaining insight into occupational stress factors amongst teachers so as to begin to find ways to remedy the apparent situation that prevails within the teaching profession. Causes of excessive stress must be found before appropriate solutions to it can be developed. In the present investigation, therefore, the researcher aimed to determine some of these factors amongst Indian teachers.

1.8 Organization of the study

This study has been presented in six chapters. Chapter I includes the introduction, purpose statement, research questions, hypotheses, definitions of terms, significance of the study, and organization of the study. Chapter II will provide a
review on various researches done related to the variables taken in the study. Having laid the theoretical and conceptual foundations, Chapter III will discuss a detailed description of the methodology and strategy for collecting data with a plan for analysis. Chapter IV will offer a description of the research tools employed along with their construction – the pilot study, the reliability and validity of the questionnaires, as well as the selection of teachers' work values. Chapter V will be devoted to the presentation and analysis of the data. The present study will also conclude with a discussion of the findings in this chapter. Chapter VI will comprise of summary, conclusion, implications, recommendations for practice, with a view to suggest some possible ways for future investigations.
Chapter-2

Review of Related Literature
Chapter 2
Review of Related Literature

Review of related literature is an important pre-requisite for actual planning and execution of any research work. The present chapter embodies a brief review of the researches done in the area related to the present investigation. A particular thing should not be neglected because it is of past and a new one should not be accepted because of its newness. It is only with the reference to old that a new thing can be learned. Alternatively, it is necessary to connect previous knowledge with the new idea to be grasped. It means that to learn a new thing our previous knowledge must be brought to the forefront. It is imperative for a review of previous studies on the subject before embarking upon making a fresh study. Thus, a review of the literature is important because, without it, one cannot acquire an understanding of his/her topic, of what has already been done on it, how it has been researched, and what the key issues are. The Educational Resources Information Center (1982) defines a literature review as an “information analysis and synthesis, focusing on findings and not simply bibliographic citations, summarizing the substance of the literature and drawing conclusions from it”. Further, Fink (1998) defined literature review as a systematic, explicit and reproducible method for identifying, evaluating and interpreting the existing body of recorded work produced by researchers, scholars and practitioners.

A literature review can be just a simple summary of the sources, but it usually has an organizational pattern and combines both summary and synthesis. A summary is a recap of the important information of the source, but a synthesis is a reorganization, or a reshuffling, of that information. It might give a new interpretation of old material or combine new with old interpretations. Or it might trace the intellectual progression of the field, including major debates. And depending on the situation, the literature review may evaluate the sources and advise the reader on the most pertinent or relevant. The focus of a literature review, however, is to summarize and synthesize the arguments and ideas of others without adding new contributions. Literature reviews give an overview and act as a stepping stone to carry research. The review of literature, thus, becomes a link between the research proposed and the studies already done.
In this chapter an attempt has been made to take cognizance of studies, which s relevance to present problem, both in India and abroad. A summary of the search literature in the area of teachers' occupational stress and its correlates shows that teachers stress has been a subject of several studies both at national and international level. A substantial body of research has accumulated concerning the various factors that affect and cause stress among teachers. Only such studies are reviewed in some depth of details that have considerable bearing on the present investigation, although, some more could be added for the purpose but the investigator has to be selective for obvious reasons. Sometimes the studies reviewed could not be classified into the areas concerned. The review was intended to provide a background to the study that followed and it was thought that such an attempt would be of great help for the formation of hypothesis.

2.1 Teachers occupational stress and demographic variables

Teacher stress becomes problematic and potentially harmful, when the challenges teachers face outpace their perceived ability to cope, or when they perceive that important needs are not being met (Dutta, 2009). Nayak et al. (2009) conducted a study on the correlation of demographic characteristics and the various components of organizational sources of stressors among 100 male and female degree college teachers of Dharwad city, Karnataka. It was found that higher percentage of the teachers (70.5%) was in the low stress category followed by very low stress category (23.5%) and lesser percent in moderate stress category (6.0%). Jeyaraj (2013) surveyed 305 higher secondary teachers in Tamil Nadu and found a majority of 62.30% to have a medium level of stress, 20% a low level of stress and the remaining 17.70% to have a high level of stress. To explore the levels of stress, Durani (2009) carried a study on 450 working women, and observed that among 150 women working as teachers in schools, 39% were having low stress, 20% were having high stress, 15% were having very average stress, 13% were having very high stress, 8% of the respondents no stress, and 5% very low stress and 0% i.e. negligible were abnormal. Mathews (2005) also conducted a study to find out the level of occupational stress among 60 higher secondary school teachers of Idukki and Kotayam districts in Kerala, and evidenced that higher secondary school teachers are not under stress in both these districts in Kerala.
A more clear view has been provided in a study on school teachers’ job stress and job satisfaction, by Mondal, Shrestha, & Bhaila (2011). Investigating the gender differences, they found a significant difference between male and female teachers. Male teachers reported more psychological stress than the female teachers. Also, physical stress was more significant among the males than the females. In the same vein, De Nobile and McCormick (2007) investigated biographical differences in relation to several aspects of occupational stress among 356 staff members of Catholic primary schools in New South Wales, Australia. They reported males to have greater occupational stress generally than their female colleagues. Chaplain (1995) while identifying biographical factors with regard to job stress in U.K. primary schools, also found significant differences between men and women. Male teachers reported more stress than their female counterparts in relation to professional tasks and pupil behavior/attitude, while female teachers scored higher than men on professional concerns. In Algeria, Mokdad (2005) surveyed 126 primary school teachers and reported a significant difference between sex and occupational stress. These findings are corroborated with the results from the study by Olaitan et al. (2010). Kelly (1993) conducted a study on 220 assistant principals (teachers) in Hong Kong secondary schools and observed sex to be significantly related to the stress of these assistant principals. Males were significantly reported to be more stressed than the females. Singh (2012) also reported male secondary teachers to be more occupationally stressed than females. These findings have been echoed by several researchers (Pei & Guoli, 2007; Lau, Yuen, & Chan, 2005).

Contrary to this, female teachers also indicated a higher level of stress as compared to the male teachers in several studies (Abdul Majid, 1998; Gandhi & Sharda, 2013; Jan, Malik & Ahmad; 2013; Murphy, 1986). Ravichandran and Rajendran (2007) administered Teacher’s Stress Inventory on 200 higher secondary teachers and indicated a gender difference on perceived personal stress. Female teachers reported more stress in their study as compared to their male counterpart. Greenglass, Pantony, and Burke (1988) conducted a study with 555 teachers investigating the relationship between work stress, social support and role conflict. The role-conflict scales were used and it was found that role-conflict was significantly higher in women than in men. The results suggested that job stress was related to role-conflict more often for women than for men. However, in a study on
occupational stress among university teachers, female teachers were discovered to be a noted exception with higher misfit scores than their male counterparts in a study by Blix et al. (1994). Female teachers were more likely to consider job change as a result of job stress.

Research findings have shown the existence of significant relationships between occupational stress of male and female teachers, to this non-parallel result was reported by Siong and Yet (2004). In their survey on 100 government aided Chinese committee primary school teachers (Grade A) in Zone Two urban district area of Kuching, Sarawak, a no significant difference was observed between the level of stress and gender. Similarly, Khatal (2011) surveyed 50 primary teachers working in Z. P. primary school in Akola Taluka, India and showed that occupational stress and sex were not related to each other. Gender was found not to significantly influence teachers' and principals' job stress by Darmody and Smyth (2011) when they studied job satisfaction and occupational stress among primary school teachers and school principals in Ireland. On the same note, gender has not caused any variation on the stress level of the elementary teachers in a study by Roxas (2009).

Further, exploring the possible links between teacher stress and gender, Lam Yee Mei (2006) and Tse (1982) found no significant differences between sex and occupational stress in their studies. Thus, these researchers concluded that the stress experienced by the male and the female teachers were more or less the same in Hong Kong. Furthermore, using an ex-post facto design among 392 secondary school teachers working in Ondo state, Nigeria, Jude (2011) found no significant difference between the occupational stress experienced by male and female teachers. On this note, Okeke & Dlamini (2013) used Pearson Product Moment Correlation and observed no significant relationship between work-related stress and gender among high school teachers, Swaziland. These findings are corroborated with the results from the study by Fontana and Abouserie (1993), Johannsen (2011), Yahaya and Nik Husain (2007).

In the same vein, Yahaya, Hashim, and Kim (2006) investigated the stress contributing factors and the level of occupational stress among 92 technical teachers in Johore, Malacca and Negeri Sembilan. A no significant difference of work stress was noted among the respondents based on gender. Further support to this is provided
by Adebiyi (2013) who showed that sex has no significant difference on stress experienced by male and female lecturers of Ekiti State University, Nigeria. Also, Adeoye and Okonkwo (2010) examined gender as one of the factors responsible for job stress among 250 workers (male and female) in Nigeria Universities, and found no significant difference in job stress and gender. Spielberger and Reheiser (1994) conducted a study with 1781 working adults, measuring gender differences in occupational stress using the Job Stress Survey (JSS) in American University and corporate settings. It was found that there were no significant differences in the overall stress levels for the two genders. These findings are corroborated with the results from the study by Kinman (1998) carried on 782 academic and academic-related staff employed within the old and new universities and other higher education institutions (HEIs) in the U.K.

The early years of teacher's career have been recognized as being stressful. Some of the causes of anxiety may be the same for experienced teachers - like, concern with discipline, motivating pupils, dealing with individual differences; but some may be unique to inexperienced teachers - like, concern about classroom management. Based on their study of beginning teachers in Hong Kong, Cooke et al. (1990) reported that the first year of teaching was not at all easy. About 45% of the sample considered their first year experience as difficult or extremely difficult. Teaching experience and age were found to significantly influence stress level by Yahaya and Nik Husain (2007) when they studied the factors influencing stress level among 400 secondary school teachers in four states. Ravichandran and Rajendran (2007) found that variables like age and years of teaching experience differ significantly, and directly contribute to sources of stress among Chennai teachers Personal Stress.

On this note, Abdul Majid (1998) showed that less experienced teachers rated a significantly higher level of stress compared to the group of more experienced teachers. Contradict to this, Mondal, Shrestha, and Bhaila (2011) indicated that the school teachers in Nepal having >10 years of experience showed more Physical Stress and the teachers having >5 to <=10 years of experience showed more Psychological Stress. Primary and junior high school teachers' with long teaching experience have been reported to have high work stress (Wang, 2012). In opposition, Kelly (1993)
indicated that the assistant principals who had been in the assistant principal-ship for over 15 years were more satisfied with their present job. On the other hand, assistant principals with less teaching experience appeared to be more dissatisfied with their jobs.

Alternatively, Holeyannavar and Itagi (2010) reported that the stressors as well as overall stress of teachers had negatively and highly significant relationship with age and work experience. On the same note, Nayak (2008) investigated age and total service to be negatively and significantly correlated with different components of employment organization sources of stressors viz. work, role, personal development, interpersonal relation, organizational climate and total stressors. Further, analyzing the impact of age and management experience on occupational stress of academic managers in higher education institutions of Pakistan, Mahmood et al. (2013) revealed a significant negative relationship between the variables. Khurshid, Butt, and Malik (2011) indicated an inverse relationship between the age and occupational role stress. Interestingly, they also reported a gradual increase in level of occupational role stress with the increase in age of teachers (N=500) of both public and private sector universities. They observed that the senior teachers of the private sector universities experience more occupational role stress than senior teachers of public sector.

No significant differences among the stress level of primary (Siong & Yet, 2004; Mokdad, 2005) alongwith elementary (Roxas, 2009) school teachers and years of teaching experience have also been shown. Further, Lam Yee Mei (2006) in a quantitative research of teacher stress on primary and secondary schools in Hong Kong found that there is no correlation between the number of years of teaching experience and the reported stress level. Also, no correlation between the age of the teachers and the stress experienced was noted by them. In another study, Johannsen (2011) made a correlation study to determine the link between stress factors and years of teaching experience, and identified no differences in stress based upon years of teaching experience. Secondary school teachers in a study by Shukla (2008) have shown that their stress and teaching effectiveness on the basis of experience and age of teachers are not related. Tahir (2011) in his study on stress level in teaching job of 106 college teachers in Pakistan reported no statistical significance between level of academic performance for different cadres of college teachers and their teaching
experience. Also, Adebiyi (2013) revealed no difference in stress outcomes of Nigerian lecturers who have spent long years (>=11 years) and those with lesser years (<11 years).

Teachers' qualification as a source of stress was found to be significant on Personal Stress by Ravichandran and Rajendran (2007). Singh (2012) also showed undergraduate teachers to be less occupationally stress than the post graduate secondary teachers. Researchers (Mondal, Shrestha, & Bhaila, 2011) on the relationship between teachers occupational stress and their qualification have shown that postgraduate teachers were having significantly less job satisfaction on job role item than the Undergraduate and Graduate teachers. On the contrary, Hong Kong teachers without finishing professional training and of junior rank reported themselves to be more burned out in a study carried by Lau, Yuen, and Chan (2005). They observed teachers rank to be the best predictor for personal accomplishment. Ling (1991) also found that teachers of lower forms and of higher professional rank suffered from high level of strain in job dissatisfactions. De Nobile and McCormick (2007) in their study linked general occupational stress by position and found that, while classroom teachers reported the highest levels of general stress, teacher's aides appear to be the least stressed, by a wide margin, compared to classroom teachers, executive staff and other non-teaching staff.

Nayak (2008) showed designation to be significantly and negatively correlated with work role, personal development and total stressors among the degree college teachers of Karnataka, India. Khurshid, Butt, and Malik (2011) observed qualification to be a significant factor that affected the level of occupational role stress of 500 university teachers. The results showed that the master's degree holder exhibit less occupational role stress than the Ph.D. degree holders. Chand and Monga (2007) on examining the correlates of job stress and burnout among 100 teachers from two universities of Himachal Pradesh, India found that maximum job stress was reported by Professors and minimum by the Assistant Professors.

Jandaghi et al. (2011) also investigated the relationship between job traits and stress in Shahed University's comprehensive plan with 123 subjects (45 professors and 78 employees). They reported a positive and significant relationship between job major aspects and job stress of professors, while there was no significant and positive
relationship between job major aspects and job stress of employees. Siong and Yet (2004) in their study on 100 primary school teachers in Kuching, Sarawak, reported no significant difference between the level of stress and academic qualification. No significant difference was also observed between trained and non-trained Algerian primary school teachers in a study by Mokdad (2005). In a similar way, Yahaya, Hashim, and Kim (2006) also demonstrated no significant difference of work stress and highest academic qualification when they surveyed 92 teachers from nine technical schools in three states (Johore, Malacca and Negeri Sembilan).

Seenivasan (2007) chose higher secondary school teachers and found all the teachers (secondary grade teachers, graduate and postgraduate teachers) to be satisfied with their job irrespective of their qualification. A study on occupational stress as perceived by assistant principals in Hong Kong aided secondary schools was done by Kelly (1993). Results of the data collected from 220 assistant principals revealed no significant difference between stress and academic qualifications of these assistant principals. Shukla (2008) surveyed 93 English medium secondary school teachers and reported that relationship of teaching effectiveness as perceived by teachers and burnout did not make any difference between qualified or over-qualified teachers. Further, using Pearson Product Moment Correlation, Okeke and Dlamini (2013) reported no significant relationship between work-related stress and qualifications among high school teachers. Also, no correlation between the teachers’ qualification and the stress level was reported by Lam Yee Mei (2006), when she carried out a quantitative research of teacher stress on primary and secondary schools in Hong Kong.

Satisfaction of teachers is knitted closely to their occupational stress, and salary is an important determinant of teachers’ satisfaction. Finding a limited research on teachers’ occupational stress and salary, the researcher has mainly discussed the related studies based on teachers’ satisfaction and salary in this section. Salary was found to affect job satisfaction of both male and female teachers in a study by Tasnim (2006). Also, the timely payment of salaries and school expenditures were shown to be positively linked to teacher satisfaction by Sargent and Hannum (2003). A cross-sectional study among 392 teachers in private secondary schools by Ofili, Usiholo, and Oronsaye (2009) identified poor salary to be the major cause of job dissatisfaction.
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and intention to quit in Nigeria. Khurshid, Butt, and Malik (2011) showed that the university teachers with low income, experience more occupational role stress than teachers with higher income level. On the same note, monthly income was negatively and significantly correlated with different component of employment organizations stressors viz. work, role, personal development, interpersonal relation, organizational climate and total stressors by Nayak et al. (2009).

Researchers have also indicated significant differences among teachers occupational stress and the various subjects taught by them. Mehra and Kaur (2011) worked on job satisfaction among 300 government and 300 private secondary school teachers of various academic streams, and found that Social Science teachers exhibited better job satisfaction than Language, Mathematics and Science teachers. Regression analyses were conducted by Hodge, Jupp, and Taylor (1994) to investigate which work stressors, attitudinal and demographic variables predicted the reported emotional distress (anxiety, depression and physical symptoms) and burnout (emotional exhaustion, use of depersonalization and feelings of personal accomplishment) of Music and Mathematics teachers working in secondary schools. Results showed that Music teachers were substantially more distressed and burnt out than Mathematics teachers. Hui and Chan (1996) found that the perceived stress level of guidance teachers was significantly higher than non-guidance teachers. With regard to student abilities, Byrne (1991) found that teachers of students in regular, academic mainstream reported significantly higher emotional exhaustion than teachers of vocational students.

On the other hand, Shukla (2008) conducted a study on stress, burnout and teaching effectiveness among 93 secondary school teachers and found no significant difference in the relationship between perceived burnout and teaching effectiveness as perceived by teachers on the basis of subjects taught (Language, Social Science, Science). Working with job satisfaction and stress of Home Economics teachers, Holley and Kirkpatrick (1987) mailed questionnaires including a teacher profile, the short form of the Minnesota Satisfaction Questionnaire and the New York State Teachers Survey on Teacher Stress, to 150 teachers. Respondents included 100 currently employed consumer, homemaking and occupational home economics teachers. They also found no relationship between stress and job satisfaction, or
between stress and any demographic variables. However, they reported significant difference in job satisfaction for the demographic variables of number of pupils taught, years as a teacher and marital status.

2.2 Teachers occupational stress and job satisfaction

A considerable level of impact of stress on job satisfaction and job involvement among teachers has been reported (Muthuvelayutham & Mohanasundaram, 2012). Ayan and Kocacik (2010) proposed a study to establish the relationship between the level of job satisfaction of 482 high school teachers and types of personality. It was seen that teachers were satisfied with their jobs near to an intermediary level. It was also found that their job satisfaction showed significant differences in terms of characteristics of liking competence, being ambitious in the social area and occupation, getting angry easily, and hiding their feelings. Hollifield (2005) examined the relationship between teacher job satisfaction, work-related stress and organizational culture in three school districts. A total of 136 teachers drawn from elementary, middle and high schools were included in the study. Results of this study indicated that teachers who had positive perceptions of school effectiveness were more likely to significant differences found for job satisfaction or work-related stress indicating that teachers at each building level were experiencing moderately high levels of job satisfaction and low levels of work-related stress. These findings are in line to Kayastha and Kayastha (2012) that showed a significant relationship between job stress and job satisfaction among higher secondary level school teachers in Nepal.

Chaplain (2001) reported levels of perceived stress and job satisfaction among primary headteachers. Sources of stress and job satisfaction were examined under four headings: managing oneself and others, managing finances, managing the curriculum and managing change. The highest levels of satisfaction came from personal factors and organizational factors. School organization was noted to be a source of stress and of satisfaction. The lowest level of satisfaction was with the level of social support. Two subgroups reporting ‘very high’ levels of stress differed markedly in levels of job satisfaction— one ‘very satisfied’, the other ‘not satisfied’. These differences were related to gender, interestingly, and perceived as sources of job satisfaction and stress.
Further, investigating the prevalence of stress and the level of job satisfaction among 844 primary school teachers in Maltese state schools, Borg and Falzon (1989) revealed significant negative correlations between self-reported teacher stress and job satisfaction. De Nobile and McCormick (2005) investigated the relationships between job satisfaction and occupational stress among Catholic primary schools in New South Wales, Australia. Their study on 356 staff members from 52 primary schools of six Catholic school systems found that four stress domains (information domain, personal domain, student domain and school domain) were predictors of job satisfaction. Moderate to strong correlations existed between most of the job satisfaction and occupational stress variables.

Borg and Riding (1991a) investigated the relationships between occupational stress and job satisfaction among 545 teachers in Maltese secondary schools. They found that teachers who reported greater stress were less satisfied with teaching. Smith and Bourke (1992) in Australia explored work-related stress and job satisfaction among secondary school teachers and identified four aspects of teacher stress: staff tensions and conflict, time pressure, students and classroom conditions, and lack of rewards and recognition. Teaching context, workload and satisfaction were found to affect stress directly. Their findings are corroborated with the results from the study by Fisher (2011). In three multiple regression tests, stress and burnout were found to be statistically significant predictors of job satisfaction; years of experience, job satisfaction, and burnout were statistically significant predictors of stress; and job satisfaction, preventive coping skills, and stress were statistically significant predictors of burnout.

Kelly (1993) conducted a study on 220 assistant principals in Hong Kong and observed a statistically significant and positive correlation ($r = 0.4549$) between self-reported occupational stress and overall job satisfaction score. The study further examined that about 70% of the assistant principals were generally satisfied with their jobs and that an increase of occupational stress would lower job satisfaction of the assistant principals. The findings revealed that female assistant principals appeared to be more satisfied with their jobs than male assistant principals. Tse (1982) proposed a study to identify levels of occupational stress and job satisfaction among 182 Hong Kong secondary school teachers of both government and subsidized sectors. The
findings showed that almost half of the teachers rated their job as either very stressful or extremely stressful. Further, in the area of job satisfaction, overall responses indicated satisfaction, with some tendency toward greater satisfaction on the part of government teachers. Work load and bad behavior of pupils were identified as the main sources of stress experienced by the teachers.

Borg, Riding and Falzon (1991) studied occupational stress and its determinants among 710 Maltese primary school teachers, through a questionnaire survey. Their results also showed that teachers who reported greater stress were less satisfied with their job and less committed to choose a teaching career if given a second chance. The investigators discovered that among the four environmental factors, 'professional recognition needs' were found to have the strongest inverse relationship with job satisfaction and career commitment. Sutton and Huberty (1984) administered the Wilson Stress Profile for Teachers to 20 school teachers in public and private schools and observed an inverse relationship between job satisfaction and stress levels. Similarly, Brewer and McMahan-Landers (2003) examined the relationship between job stress and job satisfaction among a random sample of 133 industrial and technical teacher educators. Correlational analysis revealed a strong inverse relationship between the constructs, with stressors related to lack of organizational support being more strongly associated with job satisfaction than stressors related to the job itself were. There also were significant differences in correlations between job satisfaction and frequency of stressors and correlations between job satisfaction and intensity of stressors, suggesting that frequency of stressors had a greater impact on participants' job satisfaction than did intensity of stressors.

Educational researchers have long been concerned with role stress among teachers. In education, research on the consequences of such role stress for teachers has largely concerned with outcomes valued by individuals such as job satisfaction and reduced stress. Using a sample of elementary and secondary teachers, Conley and Woosley (2000) empirically examined, first whether three role stresses—role ambiguity, role conflict and role overload were related to two individually and two organizationally valued states and second, whether teachers higher-order need strength moderates these role stress-outcome relationships. They found that role
stresses were related to individually and organizationally-valued outcomes among both elementary and secondary teachers. Usman et al. (2011) examined the relationship between role conflict, role ambiguity and attitudinal outcomes of the job i.e. job satisfaction and organizational commitment of 160 teachers in the Punjab University of Pakistan, by using personally administered questionnaires. The findings of the study suggested a positive and significant relationship between role stress i.e. role conflict and role ambiguity and work stress. However, work stress was negatively and significantly associated with job satisfaction and organizational commitment of the teaching staff of the university under examination.

Gursel, Sunbul, and Sari (2002) used Job Satisfaction Scale (JSS) and the Maslach Burnout Inventory (MBI) to measure the dimensions—Emotional exhaustion, depersonalization, personal accomplishment, of high schools headteachers’ (N=80) and teachers’ (N=210) burnout in Turkey. They found that headteachers had more job dissatisfaction, personal accomplishment and depersonalization than teachers, showing a significant difference on two of the three dimensions of burnout. However, differences in job situation according to their roles (teachers and headteachers) were not significant on emotional exhaustion. Chenevey, Ewing, & Whittington (2008) designed a study to consider the relationships between job satisfaction, occupational stress, personal strain, personal coping resources and burnout among agricultural education teachers. A random sample (N=388) of the population (N=628) received a mailed questionnaire (37% response, N=145) by them. They found that the majority of agricultural education teachers in the study possessed high levels of job satisfaction, low levels of occupational stress and personal strain, and high levels of personal coping resources. However, teachers in the study indicated a moderate level of frequency of burnout and a moderate to high level of intensity of burnout.

A total of 153 elementary resource room teachers in Taiwan were questioned using a self-report questionnaire by Cheng and Ren (2010) to investigate how well the job satisfaction may be predicted through an understanding of their job stress and demographic characteristics. Following the questionnaire, 10 veteran resource room teachers were asked to provide further insight into their work. Results for the 135 participants exhibited that both the working condition dimension of job stress and
education level were significant predictors of job satisfaction. Matsushita et al. (2011) examined the levels of occupational stress/job satisfaction among 173 nursing teachers working in 17 Japanese universities. The results showed that nursing teachers have different levels of occupational stress/job satisfaction from clinical nurses and other working female. The association between self-reported teacher stress and three response correlates of teacher stress-job satisfaction, absenteeism and intention to leave teaching was investigated by Kyriacou and Sutcliffe (1979a) among 218 teachers in England. It was found that self-reported teacher stress was negatively associated with job satisfaction ($r = -0.27$).

On a similar note, a descriptive research approach was utilized by Watson and Hillison (1991) to examine the relationships among satisfaction, temperament types and demographic variables. They found 63 agricultural education teachers to be generally satisfied with the intrinsic aspects of their jobs. No extrinsic factor scored as high in satisfaction as the lowest intrinsic factor (i.e. chance to tell people what to do). Conversely, just over one-third of all teachers were found to be satisfied with their job by Chaplain (1995). Teacher stress and job satisfaction were found to be negatively correlated, with high reports of occupational stress related to low levels of job satisfaction. Similarly, Pelsma and Richard (1988) found job satisfaction and teacher stress to be strongly correlated. They also noted that the amount of stress and degree of job satisfaction experience by teacher directly influence the quality of teacher work life. Using a questionnaire survey on 204 teachers in secondary schools of Malacca, Abdul Majid (1998) also found a negative but significant correlation between overall stress and job satisfaction ($r = -0.3882$), and between human relations stress and job satisfaction ($r = -0.3409$).

Ahsan et al. (2009) investigated the relationship between job stress and job satisfaction among 203 public university academicians from Klang Valley area in Malaysia. The results showed a significant negative relationship between the job stress and job satisfaction. Besides, Ismail, Yao, and Yunus (2009) reported a significant correlation firstly, between physiological stress and job satisfaction, and secondly an insignificant correlation between psychological stress and job satisfaction. Their study on 80 academic employees in private institutions of higher learning in Malaysia demonstrated that level of physiological stress had increased job
satisfaction, and level of psychological stress had not decreased job satisfaction. The study further confirmed that occupational stress does act as a partial determinant of job satisfaction in the stress models of the organizational sector sample. Most interestingly, using Pearson correlation, Chaudhry (2012) demonstrated no relationship between the occupational stress and overall job satisfaction in case of both male and female faculty members of Pakistani universities.

2.3 Teachers occupational stress and work values

A considerable amount of literature has emerged on the factors influencing occupational stress among school teachers, yet it is equally true that there is a paucity of recent, comprehensive empirical research in the area citing relationship between teachers stress and work values. Work values are goals that one seeks to attain to satisfy a need; they may be satisfied by more than one kind of activity or occupation. In view of this, Kokkinos (2007) measured the relationship between job stressor and burnout in primary school teachers by using 63 job stressor which had 11 subscales of work stress- student's bahaviour, managing student's misbehavior, decision making, relationships with colleagues, role ambiguity, poor working conditions, appraisal of teachers by students, work overload, appraisal of teachers, time constraints, specific teaching demands. The study ran correlation analyses and showed that emotional exhaustion and depersonalization were significantly positively correlated with all job stressor while work stressor was negatively correlated with personal accomplishment.

Allida (2005) investigated the work values, occupational stress, and teaching performance of 140 teachers and 12 principals of SDA secondary school teachers in Luzon. Religious, Occupational, and Intellectual Achievement-oriented work values were identified as the three very important primary work values by the researcher. Workload and Time Pressure, managing Students Behaviour and Learning, and Financial Security were found to be the three major stressors of the respondents wherein they experienced moderate stress. Female teachers were reported to have a significantly greater preference towards Interpersonal and Religious work values than the male teachers. In all, the author explored significant relationships between work values and occupational stress. In the same vein, Canova and Porto (2010) conducted a study to determine the organizational values as predictors of the occupational stress
level among 321 secondary school teachers. The stress factor analysis pointed out two factors and the multidimensional scaling of the Organizational Values Profile Inventory presented 5 motivational types: ethics and concern with the community; domain, organizational prestige and accomplishment; autonomy and employees well-being; conformity; and tradition. The authors suggested an inverse relationship that, the more the teacher was aware of autonomy and employees well-being and ethics and concern with the community, the less he reported occupational stress. Organizational values were significantly reported to influence occupational stress.

Ahghar (2008) studied the influence of the organizational climate of a school on the occupational stress of 220 secondary school teachers in Tehran. A 27-item questionnaire on organizational climate, along with a 53-item occupational stress questionnaire, employing 11 scales, was used as the main instruments to gather data. The predictability rate of occupational stress among teachers was found to be highest for the open climate and gradually decreases through the engaged, and disengaged to the closed climate. Among the teachers working in the disengaged and closed climate, the rate of occupational stress significantly exceeds that recorded among the teachers working in the open climate.

A causal comparative and co-relational type of descriptive research among 150 secondary level female teachers was conducted by Singh (2005) in Allahabad to find out the relationship between stress and work values. The data collected on Teachers Stress Scale and Work-Value Differential suggested that stress is negatively related to five work values namely- economic return, social service, power, independence and adventure. The values of product moment coefficients of correlation between work values and stress among secondary level female teachers also revealed six non-significant correlations. So, it can be concluded that stress is not related to intellectual challenge, chances of progress, material handled, associates, surrounding and variety work values.

Mufti et al. (2012) designed their study to identify the stressors causing stress in the faculty members of public and private sector universities of Pakistan. Questionnaire instrument was designed and data was collected that resultantly showed that student/faculty interaction, leadership style, and collegial/social interaction were the most important occupational stressors identified by these faculty members. Also,
Paschoal and Tamayo (2005) administered the Work Stress Scale and the Work Values Scale to 237 workers of a banking institution and found no relation of work values with occupational stress.

Social support as one of the major work values includes administrative and collegial support, and is often viewed as crucial to the buffering of the experience of stress (Adams, 2001; Engelbrecht & Eloff, 2001; Jonas, 2001; Van Dick et al., 1999). Griffith, Steptoe, and Cropley (1999) surveyed the coping strategies of 780 primary and secondary school U.S. teachers and reported active planning and seeking social support to be more successful in moderating stress. High job stress was found to be associated with low social support at work and greater use of coping by disengagement and suppression of competing activities. Schwarzer and Greenglass (1998) pointed out that there is a difference between perceived and actual levels of social support, and that the relationship between social support and stress can also be explained by reverse causation: that is, that highly stressed individual are less likely to form or maintain supportive workplace relationships. On the contrary, Hogan, Carlson, and Dua (2002) found no support for the hypothesis that social support is an important moderator of stress.

Boyle et al. (1995) undertook a structural modeling of the causal relationships between the various latent variables and self-reported stress on a sample of 710 teachers. Although, both non-recursive and recursive models incorporating 'Poor Colleague Realties' as a mediating variable were tested for their goodness-of-fit, a simple regression model provided the most parsimonious fit to the empirical data, wherein workload and student misbehavior accounted for most of the variance in predicting teaching stress. On a similar note, the overall findings of the study by Chand and Monga (2007) suggested that 100 university teachers, with internal locus of control, high social support and high job involvement experienced less stress and burnout. Supervisor and co-worker support was negatively and significantly correlated with job stress in needs deficiency by Ling (1991) in a study on Hong Kong aided secondary school teachers. The findings showed that social support had main or additive effect on teacher stress and strain.
Darmody and Smyth (2011) explored the association between teacher stress and relationships with other staff members, and stress levels of the principal in the school. They found poor administrative support to be associated with higher stress levels among principals. Most interestingly, principals were more likely to report feeling stressed when they considered teachers in their school to be less open to new developments and challenges. Raschke et al. (1985) designed a study to identify specific factors that elementary teachers deemed most responsible for both their job satisfaction and dissatisfaction. 230 K-6 public school teachers in the central Midwest were administered an open-ended questionnaire. As opposed to strictly monetary rewards, the results revealed that almost three-fourths of the respondents indicated their primary job satisfaction to be derived from the intrinsic benefits that accrued from working with children. Saunders and Watkins (1980) in their study concluded that the recent and continuing economic concerns of teachers have contributed to their stress. They, therefore, conjectured that when economic times become more positive, the degree of stress felt by teachers may decrease.

Lopez et al. (2010) from an integrative approach identified the main predictors of different manifestations of occupational malaise (stress, burnout and job dissatisfaction). The results from statistical analysis conducted (correlation and regression) on a sample of 1,386 secondary education teachers strongly supported the existence of (personal, psychosocial and contextual) determining factors common to all three phenomena. Specifically, support by colleagues, optimism, hardiness, daily hassles and life events were explored to be the valid predictors of stress, burnout and job dissatisfaction in these secondary school teachers by them. Other variables like-type A behavioural pattern, family support, conscientiousness also showed that account for the specificity of each of the phenomena.

Ahsan et al. (2009), through the multiple regression analysis showed that the association between homework interface and job stress was significant with $\beta = 0.218$. At the level of institution, factors such as social support amongst colleagues and leadership style have been found to be important in affecting levels of stress. Dussault et al. (1999) assessed isolation and stress in 1110 Canadian teachers and found a strong positive correlation. Similarly, the study by Jonas (2001) among 104 black educators in the Pietersburg area also indicated the relationship between stress and the
perceived social support of friends and family members. While, Salaam, Alawiye, & Okunlaya (2013) revealed that uncooperative attitude of the staff is the major cause of stress among the university librarians. Although such studies indicate colleague support can buffer stress reactions among educators, the study carried out by Jacobsson, Pousette, and Thylefors (2001) revealed that colleague and principal support were not among the more important stress buffers, as expected. Ahsan et al. (2009) also observed that relationship with others had no significant effect on job stress while, workload pressure, role ambiguity and performance pressure were the significant predictors that directly affected job stress. Moreover, Saunders and Watkins (1980) concluded that teacher-teacher relationships as well as teacher-administrator relationships are not perceived as sources of teacher stress in the system.

A study by Seenivasan (2007) found the low experienced group of 41 teachers to be dissatisfied with factors- salary, interaction in the work group, opportunity for advancement and nature of communication, while the high experienced group was observed to be dissatisfied on factors like- personal benefits, working condition, work itself, opportunity for advancement and curricular issues. Using a questionnaire, Archibong, Bassey, and Effiom (2010) gathered data from a sample of 279 academic staff and showed that career development was the greatest source of stress to academic staff. Also, sourcing funds for career development was reported to be highest with respect to career development.

2.4 Teachers occupational stress and pupil control ideology

Teacher–student attachment and teachers’ attitudes towards work appear critical in promoting and maintaining positive teacher behaviors. Communication connects students with teachers, improving the classroom atmosphere. Teachers who communicate effectively with their students can give them appropriate and helpful feedback. Teacher–student interaction is extremely important for a successful relationship through the entire school year (Ahmad & Sahak, 2009). In the same vein, Farber (1999) also notes that, “it is the student- teacher relationship that offers the greatest opportunity for stress as well as the greatest opportunity for reward and gratification”. Kinman (2001) in the tertiary section suggested that contact with
students may protect teachers from stress. She noted that professionals can find some aspects of their work intrinsically satisfying, despite high levels of stress and dissatisfaction with other extrinsic aspects—like workload and pay. She also reviewed the findings indicating that academic staff in universities are generally enthusiastic about their work and find it rewarding and satisfying despite also reporting high levels of workload and burnout.

In the study on Irish teachers and principals, Darmody and Smyth (2011) found teachers to be more satisfied when their students were well behaved and parents were more involved in school life. They observed that, the more pupils with emotional/behavioral difficulties there were in the school, the higher were the stress levels experienced by the principal. Their findings are corroborated with the results from the study by Archibong, Bassey, and Effiom (2010) conducted on 279 academic staff. They have reported students to be the greatest source of stress to academic staff with respect to interpersonal relationships. Hastings and Bham (2003) indicated that several researchers found that teachers identify student misbehavior as a source of stress. Bilbou—Nakou, Stogiannidou, and Kiosseoglou (1999) reported that difficulty in managing disruptive children have been presented as one of the major cause of burnout.

Investigating the functioning of primary school classroom management Konti (2011) explored the application methods of class and branch teachers in primary schools, qualities of these methods, plan and program preparations, how the teachers manage the relationship in their classrooms, how they prepared teaching environment, whether the teachers control the target aims are gained to the students or not, how the teacher prevent occurring misbehaviors in the classroom, reasons of misbehaviors occurring and methods adopted by the teachers to prevent misbehaviors in the classroom. Findings of the study showed that teachers need classroom management training. Likewise, Hosotani and Imai–Matsumura (2011) investigated the emotional experience; expression, and regulation processes of high-quality Japanese elementary school teachers while they interacted with children, in terms of teachers’ emotional competence. It was found that teachers considered emotion expression in front of children as a skill, and their emotion regulation processes involved considering various purposes, appropriately using emotion expression, and ideal teacher images.
Interestingly, a study by Crocker and Brooker (1986) sought to identify dimensions of classroom control derived from factor analysis of selected classroom process variables, to interpret these dimensions in relation to two contemporary models of classroom control, and to explore the relationships between dimensions of control and certain cognitive and affective outcomes. Data used in the study were drawn from a larger data base developed for some 30 hours of observation per classroom, pre-and post-testing, teacher interviews, and other data sources in a sample of 36 second grade and 39 fifth grade classes. Results of the study indicated that dimensions of boundary control and disruptive behavior were readily identifiable but, contrary to what have been suggested by other authors, warmth or emotional climate could not be clearly separated from disruptive behavior or discussion – recitations.

Agoglia (1998) proposed a study to examine the differential effects of the predictor variables of 117 teachers’ locus of control, pupil control ideology and perceived occupational stress on the criterion variable of attitudes toward inclusive education. Significant direct relationships were found between pupil control ideology and occupational stress. Alternative path models provided more parsimonious fits to the sample data, wherein pupil control ideology and locus of control accounted for most of the variance in attitudes toward inclusive education. These models suggested that teachers’ control beliefs (i.e., locus of control and pupil control ideology), independent of occupational stress, significantly affected attitude formation.

Helwig (1997) analyzed the relationship between student-related stress, teacher efficacy, pupil control ideology (PCI) and intent to leave teaching for 957 Oregon school teachers. He found that teachers intending to enter school administration were more humanistic than their colleagues. Teachers who intended to leave the classroom for positions outside of education were found to be under more stress from students, less efficacious and more custodial than those teachers intending to remain in the classroom. Using an experiential learning methodology based mainly on humanistic psychological theory, Hall, Hall, and Abaci (1997) reported the outcomes of a two-year, part time Masters’ programme in human relations. The learning style preferences of 42 experienced teachers were considered as independent variables. Also, a control group of 42 was established with similar demographic characteristics. Prior to the course, the experimental group and the control group were
given the Maslach Burnout Inventory and the Pupil Control Ideology Form. A sample of 32 from the experimental group was given semi-structured interviews relating to changes in their professional and personal lives. The results indicated that, following the training, there was a reduction in reported stress, indications of a more humanistic orientation towards pupil control and an increase in a sense of an internal locus of control.

The study by Brame (2007) also examined a hypothesized relationship among teacher beliefs, teacher behaviors, classroom climate, student engagement, and student outcomes. The researcher used teacher (N=6) and student (N=12) interviews, observations, and the mining of documents and material culture to collect data. The finding revealed that humanistic teachers operated in an atmosphere of student empowerment and high levels of student engagement while custodial teachers operated in an atmosphere of student compliance and low levels of student engagement. Outcomes, (grades, office referrals, and accountability scores) were more positive in humanistic classrooms than in custodial classrooms.

Correlations with outcomes were generally consistent with these found in other process-product studies. Baloglu (2008) examined the relationship between prospective teachers’ preferred strategies for coping with stress and their perceptions of student control by use of a relationship survey model and determined the relations between these concepts. Pearson moment correlation was used to analyze the data collected from 267 prospective teachers in Turkey. Findings showed that there was a noticeable meaningful statistical relation between the variables. Quite opposite to this, some studies have also shown negative results like that of Suzanna Zavaleta (2009). Exploring the relationship between classroom behavior management, self-efficacy and occupational stress of head start teachers, she found a negative relationship between teachers with children and their reported self-efficacy in classroom behavior management.

A sample of 376 elementary school teachers in Turkey reported their student control ideologies and their perceived burnout levels using the Student Control Ideology Scale and the Maslach Burnout Inventory in a study carried by Bas (2011). Pearson moment’s correlation coefficient analysis showed some negative significant correlations among teachers student control ideologies and their perceived burnout
Review of Related Literature

levels. It was also found that teachers' student control ideologies were significant predictors of their burnout levels and approximately 17% of the total variance for teachers' burnout was explained by their student control ideologies. Sava (2002) analyzed the data from 109 teachers and 946 high school pupils using path analysis, and suggested that, teachers who preferred a custodial approach of controlling pupils, who had lower morale due to school climate conditions and who were less likely to burn out, tended to adopt conflict-inducing attitudes towards pupils.

The study by Harris, Halpin, and Halpin (1985) supports the bivariate and multivariate relationships between the dependent variable of pupil control orientation, and the independent variables of the dimensions of teacher stress, sex and age. They surveyed 130 full-time teachers from three states and found that all of the correlations between the PCI and the stress factors were negative. Results obtained on the bivariate analyses indicated that an authoritarian orientation was significantly related to higher scores on four of the five stress factors. Also, no significant relationship existed between sex and the five stress factors, although female teachers tended to have a more humanistic orientation.

Sari (2011) surveyed 75 female teachers working in elementary schools in Turkey and indicated that gender roles of women teachers had important effects on their educational practices. Stress, close relationships with students and parents, and lack of authority and issues of confidence came out to be the few main points in teachers' explanations that how their gender roles affected their profession mostly. Friedman (1995) examined how typical student behavior patterns contribute to predicting burnout among teachers. The findings showed that the typical student behaviors – disrespect, inattentiveness and sociability – accounted for 22% of teacher burnout variance for the whole sample and for 33% of burnout variance in teachers in religious schools. Humanistic teachers were affected mainly by disrespect, whereas custodial teachers were affected mainly by inattentiveness. Burnout among male teachers was mainly affected by students' inattentiveness, whereas burnout among female teachers was mainly affected by students' disrespect.

An investigation of teacher stress by Harris (1984) focused upon teachers' personality, ideology, gender, age, locus of control, and pupil control orientation. Teacher responses obtained from the Pupil Control Ideology Form, Teacher Locus of
Control Scale and Teacher Occupational Stress Factor Questionnaire investigated professional inadequacy, principal-teacher professional relationship, collegial relationships, group instruction, and job overload as the factors frequently implicated in teacher stress. Findings indicated that an authoritarian pupil orientation was associated with high stress for four of the five stress factors. Further, an external locus of control was associated with stress for three of the five factors, and male teachers tended to have a more authoritarian approach than female teachers. Using factor analysis, item response modeling, systems of equations and a structural equation model on a sample of 1,430 practicing teachers Klassen and Chiu (2010) also found teachers with greater workload stress to have greater classroom management self-efficacy. Female teachers reported greater workload stress and greater classroom stress from student behaviors, and lower classroom management self-efficacy.

2.5 Summary

The relationships between teachers' occupational stress and demographic factors, job satisfaction, work values and pupil control ideology in the literature review show mixed results. Reporting the demographic factors, several studies have shown significant difference while others have indicated no significant difference. Some independent variables were more significant or correlated compared to others, for example, many studies reported males experiencing more occupational stress than females, while females facing more occupational stress than males were also reported in other studies. Contrary to the aforementioned findings, there were studies which reported no significant differences between male and female teachers occupational stress. Generally, a large number of researches reported that teachers experience stress mainly in the beginning years of their career. Few studies show years of experience differ significantly and thus, contribute directly to teachers stress. Some of the researches deal with an evidence of older/ more experienced teachers to face higher levels of stress, while a significant portion stated no differences in stress based upon years of teaching experience. Further, teachers of junior rank possessing less qualification reported themselves to be more stressed out; while there have been enough evidences where higher degree holders exhibited more occupational stress. Quite opposite to this, there were studies which observed no significant difference between academic qualification of teachers and their occupational stress.
The literature review shows a paucity of studies on occupational stress and salary/subjects taught. Poor salary is negatively correlated with teachers' stress, and has been identified as the major cause of dissatisfaction among teachers. A little indication has also been given where salary provided satisfaction for both male and female teachers. Besides, studies that are specific to significant differences between subjects taught and teachers' occupational stress were also addressed. Although, no significant differences have also been shown between various streams of teachers and their stress levels, yet these studies were not found to be many, and a need requires for information regarding the population of teachers serving students with different subjects. A range of results were also found among the job satisfaction, where it was seen through few studies that teachers reporting greater stress are less satisfied with teaching, normally. Whereas, other reported studies of job satisfaction among teachers indicate that as an occupational group teachers report relatively high levels of satisfaction to partly/intermediary satisfaction levels. Specially, gender role strongly affects job satisfaction of teachers. Due to cultural differences, it was also seen that job satisfaction differs between male and female based on regional differences.

Specific factors that contribute to stress levels among teachers were also examined through various work values. Mainly these factors affecting the teachers' stress are termed as pay, job security, working conditions, social support among co-workers and management, supervision, career advancement opportunities, promotion, work itself and supervision. Based on an analysis of the literature, it is evident that significant relationships do exist between teachers work values and their occupational stress. In the gender realm, female teachers show a greater preference towards work values and depict a higher level of work values than the male teachers. A large number of researches echoed that stress is negatively and significantly related to work values (supervisor and co-worker support, teachers salary and economic status of schools) while some showed no relation of work values with occupational stress. Research further suggests a relationship exists between occupational stress and how teachers behave in the classroom, i.e. their pupil control ideologies. The literature cited provides enough evidence that no matter how positive a classroom environment, children sometimes do misbehave, thereby causing stress among teachers. As a result, teachers often resort to punishment. Many of the reported studies showed that pupil control ideologies are significant predictors of teachers stress levels with an
association of authoritarian pupil orientation, generally, with high teacher stress. It is also reflected in few studies that effective training may influence these variables in a positive direction.
Chapter-3
Methodology and Design of the Study
Chapter 3
Methodology and Design of the Study

The term 'methodology' describes a process, refers to simple set of methods or procedures, a body of practices, and a set of working methods and rules used by researchers engaged in an inquiry in a particular field. Research methodology is a way to systematically solve the research problem, and is defined as a science of studying how research is to be carried out scientifically with the help of underlying rationale and philosophical assumptions. The various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them, is to be studied in it. Most essentially, the procedures by which researchers go about their work of describing, explaining and predicting phenomena are called research methodology. It is aimed to give the work plan of research.

Plan of a research study entails over view of the total layout including a consideration of how the work is to be executed. It is at this stage that decisions crucial for the accomplishment of the aims of the study such as, how the research problem has been defined, in what way and why the hypotheses have been formulated, how population is to be defined and sampled, what measures of gathering data are to be used, what controls are to be applied, what kind of data pertinent to the study are to be collected and what particular method to be adopted, how it is to be analyzed and why a particular technique of analyzing data to be used, and a host of similar other questions are usually answered.

Needless to say that without proper planning, difficulties to be encountered during the progress of the work cannot be anticipated and resolved. In fact, successful completion of the study without preplanning becomes not only difficult but impossible as well. This chapter includes a detailed description of the methods which were used in conducting this study, type of the data pertaining to study needed, the tools and techniques used for their collection, and the procedure by which they have been collected. The details about the nature of the population, the size of sample, the method of sampling, tools, procedure of data collection, statistical methods to be employed are also provided in this section.
3.1 Methodology

The method adopted for the present study can be categorized as descriptive and statistical in nature. Descriptive research describes systematically the facts and characteristics of a given population or area of interest, factually and accurately (Isaac & Michael, 1995). Such studies are designed to obtain pertinent and precise information concerning the current status of phenomena and, whenever possible, to draw valid general conclusions from the facts discovered. Descriptive research studies portray accurately the characteristics of a particular individual, situation or a group; and may be focused to investigate 'what exists' with respect to variables or conditions in a present situation. Descriptive research attempts to determine, describe, or identify what is; and are more than just a collection of data. They involve measurement, classification, analysis, comparison, and interpretation. The major purpose of descriptive research is description of the state of affairs as it exists at present. This kind of research uses description, classification, measurement, and comparison to describe what phenomena are.

Descriptive research includes surveys and fact-finding enquiries of different kinds. In social science research, the term Ex-post facto research is quite often used for descriptive research studies. The main characteristic of this method is that the researcher has no control over the variables; he can only report what has happened or what is happening. Descriptive research, also known as statistical research, describes data and characteristics about the population or phenomenon being studied. It is concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident and trends that are developing. Descriptive research answers the questions who, what, where, when, why and how. It relies on qualitative and quantitative data gathered from written documents, personal interviews, test results, surveys, etc. Basic characteristics of descriptive research are to provide a descriptive analysis of a given population or sample, where the inferences are left to the readers; to present qualitative, quantitative or a combination of both types of data; to use hypotheses or broad research questions.

The process of description as employed in this research study goes beyond mere gathering and tabulation of data. It involves an element of interpretation of the meaning or significance of what is described. Thus, description is combined with
comparison or contrast involving measurement, classification, interpretation, and evaluation. The use of inferential statistics has also been made in deducing results from different statistical techniques employed for investigating the relationship between teachers' occupational stress with their demographic factors, job satisfaction, work values and pupil control ideology. With the above mentioned goals to be achieved, this study is designed to be executed in different steps as given below.

3.2 Sample

Data are values of qualitative or quantitative variables, belonging to a set of items. Data are the fundamental base in any statistical investigation and they may be collected either through 'Census' or 'Sampling' method. However, sampling method has become more popular these days. The assumption is that if the units of a sample are selected at random, its characteristics and inferences will almost be the same as they exist in the universe. A sample is a segment of the population selected to represent the population as a whole; and a simple random sample may be defined as a subset of individuals (a sample) chosen from a larger set (a population), where each individual is chosen randomly and entirely by chance such that each individual has the same probability of being chosen at any stage during the sampling process, and each subset of $k$ individuals has the same probability of being chosen for the sample as any other subset of $k$ individuals (Yates, David, & Daren; 2008).

A sample random sample is meant to be an unbiased representation of a group. The problem of actual selection of the sample of required type and size becomes indeed very crucial for any systematic and scientific method of enquiry. Adequate sampling design depends upon many considerations such as definition of the population from which the sample is to be drawn, available information about the structure of the population, the parameters to be estimated, the objectives of the analysis including the degree of precision required, financial and other resources available at the disposal of the investigator, and appropriateness of the statistical treatment of the data, etc.

3.2.1 Size of the sample

The output of every research is the findings that are generalizable across the entire population under the study. It is necessary, therefore, to choose a sample that is representative of the population. The number of the units to be included in a
population sample, by and large, depends upon the subject area knowledge, purpose of the study, detailed knowledge of the measurement tools, the use of results in decision making, as well as the statistical knowledge to be used. The precision in sample estimates is directly proportional to the sample size. Generally, more precise sample estimates are obtained as size of the sample increases. It stands to reason that the larger the sample, the more accurate will be the results of the study; and the smaller the sample, the less accurate the results. With a large sample the data are likely to be more accurate and precise. The larger the sample, the smaller the standard error, but most investigations find this deal to be really difficult to achieve and in selection of the sample some compromise is made such that neither the resultant data becomes unmanageable to handle, nor do the generalizations and findings become questionable on account of inadequacy of the sample.

The method which is used in selecting the sample is more important than size of sample. Random selection is an ideal method for estimating the errors of sampling. Since the present study had to be confined to willing and cooperating principals and teachers, it does not claim that the sample was selected strictly randomly. The principle of randomness was adapted to the extent it was practicable. Access to the teachers and their cooperativeness admittedly were the main factors in selection of sample for the main study. Furthermore, the sample size slightly varied at different stages of investigations, partly due to dropping out of a few teachers from investigation and partly due to non-inclusion of some teachers of the main sample in subsequent analysis on account of their failure to complete one part of the test or other. However, the main sample and the sub-samples were sufficiently large representatives of the teachers of secondary schools, and are given in Table 3.1.

Table 3.1: General description of the sample

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Sample used for</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Development of Teachers Occupational Stress Scale</td>
<td>118</td>
</tr>
<tr>
<td>2.</td>
<td>Development of Teachers Job Satisfaction Scale</td>
<td>118</td>
</tr>
<tr>
<td>3.</td>
<td>Study of relationship between teachers occupational stress and their:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) demographic factors</td>
<td>608</td>
</tr>
<tr>
<td></td>
<td>(b) job satisfaction</td>
<td>608</td>
</tr>
<tr>
<td></td>
<td>(c) preferences of work values</td>
<td>608</td>
</tr>
<tr>
<td></td>
<td>(d) pupil control ideology</td>
<td>608</td>
</tr>
</tbody>
</table>
3.2.2 Sample used for the development of Teachers Occupational Stress Scale (TOSS) and Teachers Job Satisfaction Scale (TJSS)

TOSS and TJSS, both were administered on 118 secondary school teachers, 70 (59%) male and 48 (41%) female teachers, who were randomly sampled from ten secondary schools of Aligarh district. Out of these ten schools, one was single-sex male school, other was single-sex female school and the remaining eight were co-educational schools. These schools belong to different categories of management and range from good to poor in regard to performance of their pupils, and thereby depict an indirect account of teaching proficiency of their teachers. Thus, the sample selected for the scale construction of occupational stress and job satisfaction constituted a cross-section of the secondary school teachers.

3.2.3 Sample used for the study of relationship between teachers' occupational stress and their demographic factors, job satisfaction, work values and pupil control ideology

The sample used for the study of secondary school teachers' occupational stress forms the main sample of investigation which sought to find its relationship with certain demographic factors, job satisfaction, work values and pupil control ideology. In all 608 teachers, 281 (46.22%) male and 327 (53.78%) female teachers from 41 schools of eastern and western U.P. of India were involved.

It should be mentioned that these schools constitute different categories of management, some of them are privately managed, and some are managed fully or partially by the government. The types of management are categorized as Government, Government Aided, Muslim Managed, Non-Muslim Managed, and A.M.U. Managed Schools. The schools have been demarcated into the categories that range from very good to poor in their performance; for instance, Our Lady of Fatima School of Aligarh (Western U.P.) is a highly reputed and prestigious convent in terms of its progress, academic output and discipline. Pupils in these schools pay high tuition fees and belong to well to do families with a high socio-cultural background. Schools such as Government Girls Inter College and Ashrafia Inter College of Azamgarh (Eastern U. P.) are Government run schools and deliver poor output in terms of performance. Generally the pupils in these schools come from the lower socio-economic strata of the society.
Methodology and Design of the Study

The distribution of teachers according to differently managed schools is presented in table 3.2, while table 3.3 outlines the distribution of teachers according to medium of instruction, and single-sex/co-educational schools. Out of the forty one schools, ten are Government schools having 138 teachers in which 62 (44.93%) are male and 76 (55.07%) are female teachers; ten Government Aided schools have 150 teachers including 107 (71.33%) male and 43 (28.67%) female teachers. Further, 112 teachers, 26 (23.21%) male and 86 (76.79%) female teachers were selected from nine Muslim Managed schools, and 98 teachers i.e. 28 (28.57%) males and 70 (71.43%) female teachers are from seven Non-Muslim Managed schools; and lastly, five A.M.U. managed schools had 110 teachers i.e., 58 (52.73%) males and 52 (47.27%) females.

From the total schools, seventeen schools are single-sex having 281 (46.22%) teachers; in this ten are single-sex male schools constituting 153 (54.45%) teachers and the rest seven are single-sex female schools having 128 (45.55%) teachers, while the remaining twenty four are co-educational schools having 327 (53.78%) teachers in total. Further the Hindi medium and the English medium schools are seventeen and twenty four in number respectively. The number of teachers in Hindi medium schools are 258 (42.43%) and 350 (57.57%) in English medium schools.
### Table 3.2: Distribution of sample by management, schools and gender

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of schools</th>
<th>School-wise sample</th>
<th>Management-wise percentage distribution of sample</th>
<th>S.No</th>
<th>Name of schools</th>
<th>School-wise sample</th>
<th>Management-wise percentage distribution of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A.D. Govt. Girls Inter College, GKP</td>
<td>Male 15</td>
<td>Female 15</td>
<td>11</td>
<td>Mahatma Gandhi Inter College, GKP</td>
<td>Male 09</td>
<td>Female 09</td>
</tr>
<tr>
<td>2</td>
<td>Gramodaya Seva Sansthan, ALG</td>
<td>Male 05</td>
<td>Female 11</td>
<td>12</td>
<td>Imambara Muslim Girls Inter College, GKP</td>
<td>Male 05</td>
<td>Female 25</td>
</tr>
<tr>
<td>3</td>
<td>Sarvodaya Inter College, ALG</td>
<td>Male 10</td>
<td>Female 05</td>
<td>13</td>
<td>S.A.B.S.U. Madhyamik Vidyalaya, GKP</td>
<td>Male 16</td>
<td>Female 16</td>
</tr>
<tr>
<td>4</td>
<td>Jan Kalyani Inter College, ALG</td>
<td>Male 07</td>
<td>Female 08</td>
<td>14</td>
<td>Jain Inter College, RMU</td>
<td>Male 10</td>
<td>Female 10</td>
</tr>
<tr>
<td>5</td>
<td>Gyanodya Inter College, ALG</td>
<td>Male 04</td>
<td>Female 08</td>
<td>15</td>
<td>Hasrat Inter College, RMU</td>
<td>Male 10</td>
<td>Female 04</td>
</tr>
<tr>
<td>6</td>
<td>Jubilee Inter College, GKP</td>
<td>Male 12</td>
<td>Female 08</td>
<td>16</td>
<td>Rani Avanti Bai Adarsh Inter College, ALG</td>
<td>Male 18</td>
<td>Female 18</td>
</tr>
<tr>
<td>7</td>
<td>Govt. Girls Inter College, AMH</td>
<td>Male 03</td>
<td>Female 07</td>
<td>17</td>
<td>Dr. B. R. Ambedkar Inter College, ALG</td>
<td>Male 06</td>
<td>Female 01</td>
</tr>
<tr>
<td>8</td>
<td>Govt. Girls Inter College, ALG</td>
<td>Male 13</td>
<td>Female 13</td>
<td>18</td>
<td>Beenapara Inter College, AMH</td>
<td>Male 09</td>
<td>Female 09</td>
</tr>
<tr>
<td>9</td>
<td>Ashrafia Inter College, AMH</td>
<td>Male 17</td>
<td>Female 17</td>
<td>19</td>
<td>Janta Inter College, AMH</td>
<td>Male 14</td>
<td>Female 14</td>
</tr>
<tr>
<td>10</td>
<td>Kendriya Vidyalaya Sangathan, ALG</td>
<td>Male 04</td>
<td>Female 01</td>
<td>20</td>
<td>Khanja Inter College, AMH</td>
<td>Male 10</td>
<td>Female 13</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Male 62</td>
<td>Female 76</td>
<td></td>
<td>Total</td>
<td>Male 107</td>
<td>Female 43</td>
</tr>
</tbody>
</table>
### Table 3.2: Distribution of sample by management, schools and gender (contd.)

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of schools</th>
<th>School-wise sample</th>
<th>Management-wise percentage distribution of sample</th>
<th>S.No</th>
<th>Name of schools</th>
<th>School-wise sample</th>
<th>Management-wise percentage distribution of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Aligarh Public School, ALG</td>
<td>04 08 12</td>
<td>18.42</td>
<td>30</td>
<td>Gagan Public School, ALG</td>
<td>06 16 22</td>
<td>16.12</td>
</tr>
<tr>
<td>22</td>
<td>Iqra Public School (Girls), ALG</td>
<td>04 08 12</td>
<td>18.42</td>
<td>31</td>
<td>Takshila Public School, SPN</td>
<td>06 08 11</td>
<td>11</td>
</tr>
<tr>
<td>23</td>
<td>Iqra Public School (Boys), ALG</td>
<td>02 04 06</td>
<td></td>
<td>32</td>
<td>S. J. D. Memorial Public School, ALG</td>
<td>04 06 10</td>
<td>10</td>
</tr>
<tr>
<td>24</td>
<td>Woodbine Floret Public School, ALG</td>
<td>04 06 10</td>
<td></td>
<td>33</td>
<td>Pooja Public School, ALG</td>
<td>03 08 11</td>
<td>11</td>
</tr>
<tr>
<td>25</td>
<td>Ayesha Tarin Modern Public School, ALG</td>
<td>01 12 13</td>
<td></td>
<td>34</td>
<td>Our Lady of Fatima Secondary School, ALG</td>
<td>04 13 17</td>
<td>17</td>
</tr>
<tr>
<td>26</td>
<td>Al-Barkaat Public School, ALG</td>
<td>05 05 10</td>
<td></td>
<td>35</td>
<td>Blue Bird Senior Secondary School, ALG</td>
<td>06 05 11</td>
<td>11</td>
</tr>
<tr>
<td>27</td>
<td>Zakir Hussain Model Senior Secondary School, ALG</td>
<td>03 07 10</td>
<td></td>
<td>36</td>
<td>St. Teresa School, GZB</td>
<td>02 14 16</td>
<td>16</td>
</tr>
<tr>
<td>28</td>
<td>Eden Public School, SPN</td>
<td>01 10 11</td>
<td></td>
<td></td>
<td>Total</td>
<td>26 86 112</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Murtaza Memorial Public High School, GKP</td>
<td>06 16 22</td>
<td></td>
<td></td>
<td>Total</td>
<td>28 70 98</td>
<td></td>
</tr>
</tbody>
</table>

Methodology and Design of the Study
### Table 3.2: Distribution of sample by management, schools and gender (contd.)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of schools</th>
<th>School-wise sample</th>
<th>Management-wise percentage distribution of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>37</td>
<td>A.M.U. Girls High School, ALG</td>
<td>02</td>
<td>11</td>
</tr>
<tr>
<td>38</td>
<td>A.B.K. Union High School (Girls), ALG</td>
<td>07</td>
<td>21</td>
</tr>
<tr>
<td>39</td>
<td>A.B.K. Union High School (Boys), ALG</td>
<td>16</td>
<td>04</td>
</tr>
<tr>
<td>40</td>
<td>S.T.S. High School, ALG</td>
<td>07</td>
<td>08</td>
</tr>
<tr>
<td>41</td>
<td>A.M.U. City High School, ALG</td>
<td>26</td>
<td>08</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>58</td>
<td>52</td>
</tr>
</tbody>
</table>
Methodology and Design of the Study

Fig 3.1: Pie diagram showing distribution of sample by management
Table 3.3: Distribution of sample by management, number of schools, gender, medium of instruction and number of single-sex/coed schools

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Management Type</th>
<th>Number of Schools</th>
<th>Management-wise composition and percentage</th>
<th>Management-wise percentage distribution of sample</th>
<th>Medium of instruction (No. of schools)</th>
<th>Single-sex/Co-ed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Hindi</td>
</tr>
<tr>
<td>1</td>
<td>Government</td>
<td>10</td>
<td>62</td>
<td>76</td>
<td>138</td>
<td>22.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(44.93%)</td>
<td>(55.07%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Government-aided</td>
<td>10</td>
<td>107</td>
<td>43</td>
<td>150</td>
<td>24.67</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(71.33%)</td>
<td>(28.67%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Muslim Managed</td>
<td>09</td>
<td>26</td>
<td>86</td>
<td>112</td>
<td>18.42</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(23.21%)</td>
<td>(76.79%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Non-Muslim Managed</td>
<td>07</td>
<td>28</td>
<td>70</td>
<td>98</td>
<td>16.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(28.57%)</td>
<td>(71.43%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Aligarh Muslim</td>
<td>05</td>
<td>58</td>
<td>52</td>
<td>110</td>
<td>18.09</td>
</tr>
<tr>
<td></td>
<td>University Managed</td>
<td></td>
<td>(52.73%)</td>
<td>(47.27%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>41</td>
<td>62</td>
<td>76</td>
<td>138</td>
<td>22.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(46.22%)</td>
<td>(53.78%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.2.4 Demographic characteristics of the sample

The demographic characteristics of the sample are presented in table 3.4. An overview of the table reveals that the number of male teachers (281) is less than that of female teachers (327). For studying the relationship between occupational stress of teachers with their teaching experience, the data were categorized into four groups, i.e., having experiences of 0-5 years, 6-10 years, 11-15 years and 16 onwards. Out of 608 teachers, 181 belong to '0-5 years' group, 183 belong to '6-10 years' group, 113 belong to '11-15 years' group and 131 belong to '16 onwards' group. To find out the relationship between teachers stress and their qualification, the total sample was categorized into three groups on the basis of their academic qualification attained i.e. untrained, TGT (Trained Graduate Teachers) and PGT (Post Graduate Teachers). Out of the total sample, 206 are such teachers who belong to 'untrained' group, 80 are such teachers who belong to 'TGT' group and 322 are such teachers who belong to 'PGT' group. To study the effect of salary on teachers' occupational stress, teachers were categorized into two groups on the basis of payments received by them, i.e. upto 15,000 INR and 15,000 INR onwards. Out of 608 teachers, 386 received 'upto 15,000 INR' and the remaining 222 teachers' received '15,000 INR' onwards. Furthermore, the relationship between subjects taught by teachers and occupational stress faced by them was studied by categorizing the sample into four groups, i.e. languages (English, Hindi, Urdu/ Arabic/ Persian, Sanskrit), arts (Drawing, P.T./ Music/ Dance, General Knowledge), social sciences (Economics, Education, Geography, History, Islamic studies/ Theology, Political science, Psychology, Sociology) and sciences (Mathematics, Physics, Chemistry, Biology, Home Science, Computer). Out of the total teachers, 214 teach languages, 35 teach arts, 144 teach social sciences and 215 teach sciences to their students.

Moreover, 608 teachers responded to the Teachers' Job Satisfaction Scale, Work Values Scale and Pupil Control Ideology Scale. The schools on the basis of their management comprised of five categories, i.e. 'Government', 'Government Aided', 'Muslim Managed', 'Non-Muslim Managed' and 'A.M.U. Managed'. The numbers of teachers in the respective categories of schools are 138, 150, 112, 98 and 110. From the total sample, 281 teachers are in 'single-sex schools' and 327 teachers are in 'co-educational schools'. Also, out of 608 teachers, 258 belong to 'Hindi' as
medium of instruction and 350 belong to 'English' as medium of instruction. The respective percentages of the number of teachers in each category are contained in Table 3.4.

Table 3.4 Sample profile regarding demographic factors, job satisfaction, work values and pupil control ideology (N = 608)

<table>
<thead>
<tr>
<th>Demographic</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>281</td>
<td>46.22</td>
</tr>
<tr>
<td>Female</td>
<td>327</td>
<td>53.78</td>
</tr>
<tr>
<td><strong>Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5 years</td>
<td>181</td>
<td>29.77</td>
</tr>
<tr>
<td>6-10 years</td>
<td>183</td>
<td>30.10</td>
</tr>
<tr>
<td>11-15 years</td>
<td>113</td>
<td>18.58</td>
</tr>
<tr>
<td>16 onwards</td>
<td>131</td>
<td>21.55</td>
</tr>
<tr>
<td><strong>Qualification</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Untrained</td>
<td>206</td>
<td>33.88</td>
</tr>
<tr>
<td>TGT</td>
<td>80</td>
<td>13.16</td>
</tr>
<tr>
<td>PGT</td>
<td>322</td>
<td>52.96</td>
</tr>
<tr>
<td><strong>Salary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upto 15,000 INR</td>
<td>386</td>
<td>63.49</td>
</tr>
<tr>
<td>15,000 INR onwards</td>
<td>222</td>
<td>36.51</td>
</tr>
<tr>
<td><strong>Subjects taught</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Languages</td>
<td>214</td>
<td>35.20</td>
</tr>
<tr>
<td>Arts</td>
<td>35</td>
<td>5.76</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>144</td>
<td>23.68</td>
</tr>
<tr>
<td>Sciences</td>
<td>215</td>
<td>35.36</td>
</tr>
<tr>
<td><strong>Job satisfaction</strong></td>
<td>608</td>
<td>100</td>
</tr>
<tr>
<td><strong>Work values</strong></td>
<td>608</td>
<td>100</td>
</tr>
<tr>
<td><strong>Pupil control ideology</strong></td>
<td>608</td>
<td>100</td>
</tr>
<tr>
<td><strong>Differently managed schools</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>138</td>
<td>22.70</td>
</tr>
<tr>
<td>Government Aided</td>
<td>150</td>
<td>24.67</td>
</tr>
<tr>
<td>Muslim Managed</td>
<td>112</td>
<td>18.42</td>
</tr>
<tr>
<td>Non-Muslim Managed</td>
<td>98</td>
<td>16.12</td>
</tr>
<tr>
<td>A.M.U Managed</td>
<td>110</td>
<td>18.09</td>
</tr>
<tr>
<td><strong>Single-sex and Co-educational schools</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-sex (male and female)</td>
<td>281</td>
<td>46.22</td>
</tr>
<tr>
<td>Co-educational</td>
<td>327</td>
<td>53.78</td>
</tr>
<tr>
<td><strong>Medium of instruction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindi</td>
<td>258</td>
<td>42.43</td>
</tr>
<tr>
<td>English</td>
<td>350</td>
<td>57.57</td>
</tr>
</tbody>
</table>
3.3 Data collected for the study

The following baseline data were collected for carrying out the present investigation:

➢ Data used for the development of Teachers Occupational Stress Scale.
➢ Data used for the development of Teachers Job Satisfaction Scale.
➢ Scores on the teachers stress toward their occupation.
➢ Scores of the teachers demographic factors.
➢ Scores of the teachers job satisfaction.
➢ Rank scores of the teachers on their preferences of work values.
➢ Scores of the teachers pupil control ideology.

3.4 Tools used

After careful considerations following tools were selected or developed for collecting data. Detailed descriptions of these tests are given in the fourth chapter.

3.4.1 Teachers Occupational Stress Scale

This scale was developed by the investigator to measure the stress experienced by the teachers toward their occupation. The occupational stress scale consisted of 20 negatively worded items. The instrument uses a 5-point Likert scale and the scheme of scoring response category, 'strongly agree' was given a weight of 5, 'agree' a weight of 4, 'undecided' a weight of 3, 'disagree' a weight of 2 and 'strongly disagree' a weight of 1 in respect to the responses pertaining to all the negatively worded statements on occupational stress. The teachers occupational stress score is calculated by adding the individual scores of all the items together where possible range can be between 20-100, with mean of 60. Low score on the TOSS indicates low level of stress or high satisfaction toward teachers job, and high score on TOSS indicates high level of stress or low satisfaction toward teachers job. Teachers occupational stress levels are categorized into low (20-50), moderate (51-70) and more (71-100) levels of stress in accordance with stress scores obtained. The scale has a split-half reliability of 0.83, which when corrected by Spearman Brown Profecy Formula increased to 0.91. The inner consistency coefficient determined by the Cronbach alpha correlation is 0.92. Another consistency test of the scale is performed
Methodology and Design of the Study

by item total correlations technique; item total score correlations are between the range of 0.44 – 0.78 of all items with the total test.

3.4.2 Teachers Job Satisfaction Scale

The investigator developed a 20-item Likert type scale to measure the job satisfaction of teachers. The scale includes four positively worded and sixteen negatively worded statements to satisfaction towards job. A 5 – point scale is used to score the responses. The scheme of scoring response category, ‘strongly agree’ was given a weight of 5, ‘agree’ a weight of 4, ‘undecided’ a weight of 3, ‘disagree’ a weight of 2, and ‘strongly disagree’ a weight of 1 in respect of responses pertaining to positively worded to job satisfaction. The scoring was reversed for the statements that were negatively worded to job satisfaction. The teachers job satisfaction score is calculated by adding the individual scores of all the items together where possible range can be between 20-100, with mean of 60. Low score on the TJSS indicates low level of satisfaction or unfavorable attitudes toward the teaching profession, and high score on the TJSS indicates high level of satisfaction or favorable attitudes toward teachers job. Teachers job satisfaction levels are categorized into high (71-100), moderate (51-70) and low (20-50) levels of satisfaction in accordance with satisfaction scores obtained. The scale has a split-half reliability of 0.77, which when corrected by Spearman Brown Profecy Formula increased to 0.87. The inner consistency coefficient determined by the Cronbach alpha correlation is 0.89. Another consistency test of the scale is performed by item total correlations technique, item total score correlations are between the range of 0.48 – 0.77 of all items with the total test.

3.4.3 Work Values Scale

The investigator has selected the ‘work values as preference’ paradigm after a careful literature study, mainly referring to that of researchers (Super, 1957; Herzberg, 1959; Rosenberg, 1957; Lofquist & Dawis, 1978; Stefflre, 1962; Schaffer, 1953). Some value orientations are unique to a single author, and some values incompletely fill in the categories defined by the remainder. However, there is a substantial agreement on 12 to 15 value categories. Therefore, taking this set as fundamental, the researcher picked-up 11 work values from the six lists according to a rationale which
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could well serve her purpose. The final selection of work values was made on the basis of popularity or commonness of different work values. These work values selected are as follows:

1. Good Economic Return
2. High Status
3. Power/ Authority
4. Security of Service
5. Freedom
6. Social Service
7. Cooperating Colleagues
8. Advancement
9. Intellectual Stimulation
10. Supervision
11. Work Consistent with Life Goals and Values

For the convenience, the statements were asked to be rearranged in the order of their rank preference in the Work Values Scale with the most favorable – seeming work value being assigned the number 1 and the least favorable – seeming work value the number 11. The eleven relevant work values were presented to the teachers. Each teacher was asked to judge as to which of the values is more important to him/her than the other. In this way, data regarding the number of occasions on which each value was judged more important than other was obtained. A frequency matrix was prepared with the help of the data obtained. The total number of individuals making the comparative judgments is 608 (N). Dividing the total cell entries in the data matrix by N (number of teachers) gives the weightage of each work values.

3.4.4 Pupil Control Ideology Scale

Khatoon and Munir (2009) designed the pupil control ideology scale to identify teachers control orientation in Indian schools. This scale consists of 20 items about schools, teachers and pupils, designed to measure the pupil control ideology of educators. Each statement of the tool is scored on a 5-point, Likert type scale where 5 means strongly agree and 1 denotes strongly disagree for all the statements that were positive to custodial viewpoint. Item responses were coded so that high scores (maximum of 100) signal a custodial orientation and low scores (minimum of 20) a humanistic orientation. The pupil control ideology score for a teacher is calculated by summing the individual scores of all the items together, where the theoretical range of the scores on this scale extended from 20-100, with mean 60. Thus, a score in the
range of 71-100 signifies a custodial pupil control ideology, 51-70 signifies a moderate ideology, and a score range of 20-50 denotes a humanistic pupil control ideology. The reliability of the scale is 0.88 as reported by its authors and calculated by split-half method and corrected by Spearman Brown Profecy Formula. The inner consistency coefficient determined by the general Kuder-Richardson Formula is 0.91. A complete test of the items in the scale is provided in the Appendix A-4.

3.4.5 Personal information sheet and its coding

The personal information sheet was prepared by the investigator and it contained questions which aimed at eliciting information about the teacher's personal characteristics such as name, school, gender, teaching experience, qualification, salary and subjects taught. Differential weighting was used for scoring responses of the items or questions which sought different information. Also, the institutional information was sought by management type and medium of instruction on this personal information sheet. All items in this sheet had either two or four options. The teachers were requested to put a tick mark (✓) against the alternative which suits them. A copy of personal information sheet is given in Appendix B-1.

The coding of the personal information sheet is as follows:

1. Gender: Male = 1, Female = 2.
2. Teaching Experience: 0-5 years = 1, 6-10 years = 2, 11-15 years = 3, 16 onwards = 4.
3. Qualification: Untrained = 1, TGT = 2, PGT = 3.
4. Salary: Upto 15,000 INR = 1, 15,000 INR onwards = 2.
5. Subjects taught: Languages = 1, Arts = 2, Social Sciences = 3, Sciences = 4.

3.5 Methods of data collection

In order to collect the systematic data, it was essential to approach subjects personally and the investigator did the same. The relevant data about the occupational press of secondary school teachers on the basis of demographic factors, job satisfaction, work values and pupil control ideology were collected with the help of measuring tools, which were given in the previous section. In this regard, first of all prior permission from the Principals' of those schools from which the data was
collected was obtained and a schedule of administering the tests was fixed with them. The investigator presented the formal letter received from her Supervisor and Chairman of the Department of Education, A.M.U., Aligarh, so as to seek full cooperation of the Principals' and teachers in these schools.

Further, after due permission the investigator contacted the teachers and explained the objectives of the study to them. The respondents were assured that the information provided by them would be kept confidential. Then, the investigator distributed all the tests in a booklet form among the teachers. They were explained and also asked to go through the general instructions given on the top of the front page of the booklet before filling the given entries. Lastly, the teachers were asked to read the questions/statement carefully and requested to give their responses. Doubts and confusions were made clear by the investigator before moving to the next item. The investigator also gave full freedom to the teachers to ask the meaning of the words or sentences which were beyond their understanding. Moreover, there was not any kind of undue stress and control over the teachers at the time of completion of the scale booklet. After completion, it was collected from the teachers and at the same time the booklets were carefully checked by the investigator to see if all the items were answered or not. If any question was left unanswered, the teachers were requested to complete it before leaving.

3.5.1 Hurdles in data collection

Unfortunately, the data collection work was delayed due to many unforeseen difficulties. The main difficulties encountered are as follows:

- Non-cooperation of principals' and teachers': This was one of the biggest hurdles that the investigator encountered during the data collection process. Principals of many schools did not allow the investigator to get the data collected from their schools, and on part of the teachers', many senior teachers were rude enough to show disinterest in answering the scale booklet.

- Holidays and vacations: Winter vacations, gazette holidays, half-working days on weekends in some schools while short periods on Friday in other schools, inspection day etc. proved to be the obstacles in the smooth collection of data.

- Examinations as a problem: Various examinations such as terminal, monthly and class tests also proved as hurdles in the normal work of data collection.

- B.Ed trainees: There was a rush of B.Ed trainees in almost every school, which in turn jeopardized the normal activities of the schools.
3.6 Statistical techniques employed

In accordance with the objectives of the study the obtained data were analyzed, and for the data analysis specific statistical techniques were chosen only after the investigator found them to be the most appropriate and compatible for the collected data. Each statistical method is based upon its own specific assumptions regarding the nature of the sample and research conditions. These factors are considered in advance. Following statistical measures were used for analyzing the data:

- Determination of the reliability and validity of the TOSS and TJSS.
- Computation of mean and standard deviation.
- Use of linear measure of correlation (Pearson's Product Moment Coefficient Correlation).
- Use of Multiple Regression for seeing the combined and individual effect of variables on the dependent variable.
- Use of F-test for measuring the significance of difference among more than two means.
- Use of t-test for measuring the significance of difference between two means.

*Assumptions underlying the use of the Product Moment Correlation and t-test*

It may be relevant here to mention assumptions underlying the use of Pearson Product Moment Correlation and the t-test, and how they are to be satisfied before the use of these techniques.

Before correlation is computed the data is tested to see if two conditions exist. The first of these conditions is that we have linear regression which means that our points on the scattergram tend to fall along a straight line and the second condition is that we should look for its homoscedasticity which means that the standard deviations of the arrays tend to be equal.

To the extent that the data are not linear, the size of the computed ‘r’ is diminished. The size of the ‘r’ reflects the amount of variance that can be accounted by a straight line. When the data is primarily curvilinear, eta coefficient of the correlation can be used, but this is not the case with present study. In the present study
it was assumed that the data is linear. Consequently, Pearson Product Moment
Correlation was found between total distributions of scores of the variables put into
correlation.

When the analysis of t-test is used, the following assumptions should be met:

➢ The individuals in the various sub-groups should be selected on the basis of
random sampling from normal distributed population.

➢ The variance of the sub-groups should be homogeneous.

➢ The sample comprising the groups should be independent.

The logic of t-test requires all the aforementioned three assumptions. The first
and third assumptions depend upon the adequacy of the experimental design. This
emphasizes the necessity for careful planning prior to the execution of statistical tests.
Chapter-4
Research Tools
Chapter 4
Research Tools

The dependability of research findings is not only determined by planning, methodology, data analysis and interpretation but also on tools that are used to collect information or data. The construction of a research instrument or tool for data collection is the most important aspect of a research because anything that is said by way of findings or conclusions is based upon the type of information collected; and the data collected is entirely dependent upon the questions asked to the respondents. *The research tool provides the input into the study and therefore the quality and validity of the output (the findings), are solely dependent upon it.* In a research study, while selecting research tools many considerations have to be kept in mind- such as objectives of the study, the amount of time to be devoted to the study, availability of suitable tests, their statistical characteristics, etc. Most importantly, amongst the available tools, those tools should be selected that would provide data which the investigator seeks to test the hypothesis.

The tools used for collection of data for this study have been briefly discussed in the foregoing chapter. Pupil Control Ideology Scale has been used in its original form, whereas to measure the stress experienced by the teachers, Teachers Occupational Stress Scale is developed by the investigator, through which teachers were asked to take part in a questionnaire. Teachers Job Satisfaction Scale is also constructed by the investigator to measure the extent of job satisfaction of teachers in the teaching profession. Work Values Scale has been constructed with an attempt to evaluate the preferences given to various values at work by the teachers. The present chapter is devoted to a discussion of the methods of tools construction. Here the steps for construction of these aforementioned tools are discussed in detail.

4.1 Teachers Occupational Stress Scale (TOSS)

A wide variety of scales to measure teachers occupational stress have been developed, like that of Cohen, Kamarck, and Mermelstein (1983), Gmelch et al. (1984), McCormick and associates (McCormick, 1997a; McCormick & Shi, 1999; McCormick & Solman, 1992b), Ismail, Yao and Yunus (2009), Eres and Atanasoska (2011). However, in view of all the questionnaires on teacher stress, one of the first
instruments developed was Teacher Occupational Stress Factor Questionnaire (Clark, 1980), consisting of 30 Likert-type items which assess teachers' perceptions of occupational stress. The initial validation study indicated the existence of five factors: professional inadequacy (SPI), principal-teacher relationships (SPT), collegial relationships (SCR), group instruction (SGI), and job overload (SJO). Responses were scored from 1 (not stressful) to 5 (extremely stressful); a high score indicated high stress. Internal consistency reliability coefficients for the five factors ranged from .93-.98 in the validation study (Clark, 1980). In addition, partial support for the construct validity of the TOSFQ was provided in a study by Moracco, Danford, and D'Arienzo (1982).

The earliest work by Fimian and Santoro (1983) on Teacher Stress Inventory (TSI) includes a "sources of stress" scale and a "physiological manifestations of stress" scale. Hanif (2004) utilized Teacher Stress Inventory (TSI-Urdu), adapted from TSI (Fimian, 1984) on women school teachers, comprising of 49 items pertaining to 10 subscales of teacher stress. However, the most popularly and frequently employed measure of teacher stress is the Teacher Stress Inventory developed by Boyle et al. (1995). Clunies-Ross, Little and Kienhuis (2008) adapted this scale to Australian English for primary teachers. The inventory presents 20 sources of stress in teaching, and asks teachers to rate on a scale of 0 to 4 the amount of stress they generally experience from each factor. The Cronbach alpha internal consistency coefficient for the scale is $r = .85$ (Griffith et al., 1999).

The Occupational Stress Scale (OSS) developed by Hassan and Hassan (1998) measures a variety of stressful job situations. The 60-item (5 point Likert) OSS demonstrated a high internal consistency (Cronbach $\alpha$ ranged from 0.79-0.87). The scale has also yielded a test-retest reliability coefficient of 0.76. Mokdad (2005) developed an occupational stress questionnaire consisting of mainly three major areas: sources of stress, symptoms of ill-health, and coping with stress strategies; having a reliability coefficient of 0.78. In comparison to these two, a much higher reliability with Cronbach's alpha calculated at 0.943 has been depicted by Antoniou, Polychroni, and Kotroni (2009) in their six-point Likert-type self-report rating scale ranging from no stress at all (1) to very high level of stress (6).

Teaching and non-teaching staff members in the age range 20-65 years responded to Job Stress Questionnaire (JBSQ) developed by Adeoye and Okonkwo (2010). It includes 24 questions and measures different perceived causes of job stress.
The questionnaire was subjected to face validity and content validity by the assistance of experts in research method, and a reliability coefficient of 0.76 was obtained via a test-retest method. Items for the instrument tagged Stress Sources Questionnaire (SSQ) were developed by Archibong, Bassey and Effiom (2010) to assess the extent of stress experienced by participants at University level in four aspects related to the job namely- interpersonal relationships, research, teaching and career development. The Cronbach’s Alpha ranging from 0.74–0.82 was recorded for the sub-variables and 0.78 for the entire instrument.

In India, the Occupational Stress Index developed by Srivastava and Singh (1981) is one of the most often administered scales to the teachers. It consists of 46 items rated on a five point scale that relates to dimensions of job life, viz., role conflict, powerlessness, low status, etc. Also, the Teachers Stress Scale (TSS) by Misra and Singh is evidenced to measure stress among female teachers by Singh (2005). The reliability as worked out by test-retest method was found to be 0.8514. Specifically, Sheeja (1999) constructed a 3 point Stress Inventory for Teachers (SIT) to assess the stress levels of primary school teachers. This scale consists of 63 items divided into 4 components viz., physical and personal, occupational, familial and social, psychological and emotional stressors. For each statement a score of 2, 1 and 0 is to be given for responses always, sometimes and never respectively. The total score of stress ranges from 0-126. However, there is a dearth of shorter instruments in India to measure the occupational stress of particularly secondary school teachers altogether. Finding a need for a shorter instrument with a straightforward factor structure, the Teachers Occupational Stress Scale is developed for this research work.

4.1.1 Procedure

As a first step towards the development of Teachers Occupational Stress Scale (TOSS), 56 statements expressive of stress toward teaching occupation were written after a careful study of related literature and discussion with several experienced principals, teachers and teacher-educators. The draft form thus prepared was released for experts’ opinion who were requested to judge the worth of each statement against the following criteria:

- The statement should be kept short; and in simple and understandable language.
Research Tools

➢ The statement should be clear and unambiguous semantically so that it is interpreted uniformly by all respondents.

➢ The statement should not be double barreled, i.e. two statements in one—two statements should be asked rather than one; it should express one single idea or issue.

➢ Statement should not contain prestige bias—causing embarrassment or forcing the respondent to give false answer in order to look good.

➢ The statements should be grouped into specific topic as it would make it easier to understand and follow.

➢ The statement should be properly spaced and laid-out in the questionnaire as cluttered questionnaire is less likely to be answered.

➢ The statement should be relevant i.e. there should be congruence between the statement and the definition of the concept of TOSS as accepted in this study.

As a result of experts' comments some of the statements were modified and some omitted. The revised version of the initial TOSS contained 33 statements, consisting of both positively (07) and negatively (26) worded statements toward stress. Instructions to the subjects required them to respond to each of the item on a 5-point scale, the response categories being 'strongly agree', 'agree', 'undecided', 'disagree', and 'strongly disagree'. For construction of TOSS scale, Likert's technique was preferred to Thurston's technique because the former is simpler and less time consuming. Moreover, Thurstonian approach lacks good indices of validity items and requires weighting of responses on a priori basis and not on the basis of item analysis data. Several popular and widely used teacher stress scales have followed Likert's technique. Boyle et al. (1995), for example, used the method of summated ratings (Likert's technique) in his survey of teachers stress because of its relative simplicity. Teacher Occupational Stress Factor Questionnaire (TOSFQ) constructed by Clark (1980) utilizes the same method of Likert's technique, and has resulted as the most comprehensive instrument for measuring teachers stress for more than three decades.

4.1.2 Try-out

The initial form of TOSS was administered to 118 teachers (59% male and 41% female), randomly sampled from ten secondary schools of Aligarh district.
Nunnally (1970) recommends that the number of individuals for tryout of tests should be three to four times the number of items. Thus, the sample used for tryout of TOSS was quite adequate.

The schools from which sample was selected belong to different categories of management and range from good to poor in regard to standard of performance of their pupils, which bear an indirect account of teaching proficiency of their teachers. Thus, the sample selected for tryout of the Teachers Occupational Stress Scale constituted a cross-section of the secondary school teachers. From the approximately 145 teachers in the schools, the investigator was able to collect 118 duly filled in questionnaires (81% response rate) by making personal visit to each school.

4.1.3 Scoring

The scheme of scoring response categories involved differential weighting, in respect of responses pertaining to negative worded statements on stress, such that the response category, ‘strongly agree’ was given a weight of 5, ‘agree’ a weight of 4, ‘undecided’ a weight of 3, ‘disagree’ a weight of 2, and ‘strongly disagree’ a weight of 1. The scoring was reversed for the positive worded statements. The occupational stress score of a teacher is the sum total of scores on all the 33 items of the scale. Theoretically, the range of scores on this scale extended from 33 to 165. The higher the score the more is the stress faced by the teacher towards their occupation.

4.1.4 Item analysis

An item analysis was done to determine the discriminating power of each item with the total test by using Pearson Product Moment Correlation techniques. The aim was to make the TOSS homogeneous by checking consistency of each item with the total test and discarding all such items as were found inconsistent. To achieve this end, scores on each item of the respondents were correlated with their total test scores (Table 4.1). The items found to have a correlation of 0.40 or less with the total test were discarded. Such items were thirteen in number. Surprisingly, all items positive to occupational stress failed to discriminate and hence, were also included among the rejected ones. To remove the effect of the eliminated items scores of the respondents on them were deducted from their total score and item total correlation again computed in respect of the remaining 20 items. The reiterative procedure increased the original coefficient such that none of the 20 items were found to have a correlation.
### Table 4.1 Item total correlations of the 33 items of the TOSS

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Correlation Coefficient</th>
<th>Item No.</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0.71</td>
<td>18.</td>
<td>0.71</td>
</tr>
<tr>
<td>2.</td>
<td>0.65</td>
<td>19.</td>
<td>0.75</td>
</tr>
<tr>
<td>3.</td>
<td>0.28*</td>
<td>20.</td>
<td>0.05*</td>
</tr>
<tr>
<td>4.</td>
<td>0.12*</td>
<td>21.</td>
<td>0.66</td>
</tr>
<tr>
<td>5.</td>
<td>0.30*</td>
<td>22.</td>
<td>0.74</td>
</tr>
<tr>
<td>6.</td>
<td>0.52</td>
<td>23.</td>
<td>0.29*</td>
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<td>7.</td>
<td>0.71</td>
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<td>0.70</td>
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<td>8.</td>
<td>0.58</td>
<td>25.</td>
<td>0.11*</td>
</tr>
<tr>
<td>9.</td>
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<td>0.74</td>
</tr>
<tr>
<td>10.</td>
<td>0.16*</td>
<td>27.</td>
<td>0.42</td>
</tr>
<tr>
<td>11.</td>
<td>0.48</td>
<td>28.</td>
<td>0.51</td>
</tr>
<tr>
<td>12.</td>
<td>0.63</td>
<td>29.</td>
<td>0.06*</td>
</tr>
<tr>
<td>13.</td>
<td>0.40*</td>
<td>30.</td>
<td>0.64</td>
</tr>
<tr>
<td>14.</td>
<td>0.53</td>
<td>31.</td>
<td>0.28*</td>
</tr>
<tr>
<td>15.</td>
<td>0.03*</td>
<td>32.</td>
<td>0.51</td>
</tr>
<tr>
<td>16.</td>
<td>0.34*</td>
<td>33.</td>
<td>0.06*</td>
</tr>
<tr>
<td>17.</td>
<td>0.56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Rejected items

### Table 4.2 Item total correlations of the 20 items of the TOSS

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Correlation Coefficient</th>
<th>Item No.</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0.73</td>
<td>11.</td>
<td>0.73</td>
</tr>
<tr>
<td>2.</td>
<td>0.65</td>
<td>12.</td>
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</tr>
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<td>0.48</td>
<td>13.</td>
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<td>0.74</td>
<td>14.</td>
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<td>5.</td>
<td>0.60</td>
<td>15.</td>
<td>0.74</td>
</tr>
<tr>
<td>6.</td>
<td>0.77</td>
<td>16.</td>
<td>0.76</td>
</tr>
<tr>
<td>7.</td>
<td>0.50</td>
<td>17.</td>
<td>0.44</td>
</tr>
<tr>
<td>8.</td>
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<td>18.</td>
<td>0.52</td>
</tr>
<tr>
<td>9.</td>
<td>0.48</td>
<td>19.</td>
<td>0.66</td>
</tr>
<tr>
<td>10.</td>
<td>0.59</td>
<td>20.</td>
<td>0.53</td>
</tr>
</tbody>
</table>
of less than 0.44 with total test. It was considered sufficiently high size for retaining an item for the final form of the TOSS.

The instrument in its finished form consisted of 20 negatively worded items on teachers' occupational stress, the examples of which could be cited as: (i) I am bored with my job (ii) My opinions are not appreciated by my principal (iii) My job does not satisfy me any longer. Teachers occupational stress score is calculated by adding the individual scores of all the items together where the possible range lies between 20 - 100. Correlations for each of the 20 items constituting TOSS are reported in Table 4.2. Statement numbers correspond to these given in final version of the TOSS test. A specimen of TOSS is given in Appendix A-1.

4.1.5 Reliability

The consistency of data will be achieved when the steps of the research are verified through examination of such items as raw data, data reduction products, and process notes (Campbell, 1996). Hence, it is the researchers' responsibility to assure high consistency and accuracy of the tests and scores. Thus, Crocker and Algina (1986) say, "Test developers have a responsibility of demonstrating the reliability of scores from their tests". In order to find as to what extent the TOSS developed by the investigator possesses this quality, split-half method was employed using the scores of 118 subjects on 20 items of the final form. A split-half reliability coefficient was found by correlating scores of the subjects on odd items of the test with their scores on even items. The correlation coefficient thus obtained was 0.83 which when corrected by Spearman Brown Prophecy Formula increased to 0.91.

Yet another method i.e. Cronbach Alpha was carried out on all the 20 items of the TOSS, which yielded an acceptable $\alpha = 0.92$. Cronbach's alpha is the most commonly used measure of reliability (i.e., internal consistency), that is, how closely related a set of items are as a group; and is not a statistical test technically. It was originally derived by Kuder and Richardson (1937) for dichotomously scored data (0 or 1) and later generalized by Cronbach (1951) to account for any scoring method. Alpha is the mean of all split-half reliabilities (Cronbach, 1951). If the items in a test are correlated to each other, the value of alpha is increased. However, a high coefficient alpha does not always mean a high degree of internal consistency. This is
because alpha is also affected by the length of the test. If the test length is too short, the value of alpha is reduced (Nunnally & Bernstein, 1994; Streiner, 2003). Thus, to increase alpha, more related items testing the same concept should be added to the test.

There are different reports about the acceptable values of alpha, ranging from 0.70 to 0.95 (Bland & Altman, 1997; DeVellis, 2003; Nunnally & Bernstein, 1994). If alpha is too high it may suggest that some items are redundant as they are testing the same question but in a different guise. The closer Cronbach’s alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. George and Mallery (2003) provide the following rule of thumb: _> 0.9 — Excellent, _> 0.8 — Good, _> 0.7 — Acceptable, _> 0.6 — Questionable, _> 0.5 — Poor, and _< 0.5 — Unacceptable. Besides, Streiner (2003) recommends a maximum alpha value of 0.90.

4.1.6 Validity

The method employed for establishing validity of the TOSS was based on principals’ judgment method. The principals of various schools whose teachers had participated in this study were approached. They were asked to read carefully the descriptions of more stress as well as less stress behavior towards teaching, and identify those of the teachers of their respective schools whose stress behavior matched clearly with either of the two descriptions. In this way two groups of teachers, one having more stress and the other less stress towards teaching occupation were identified.

The means of TOSS scores of those two groups were compared to test the hypothesis that the mean of TOSS scores of the group judged as having more stress towards teaching would be significantly higher than the mean of TOSS scores of the group judged as having low stress. For this purpose, a t – test of the difference of the means of two independent, small sample was applied and the value of ‘t’ calculated by using one – tailed test. The result of the comparison is contained in table 4.3. The validation procedure yielded a t-value of 8.87 which was found significant at the 0.01 level indicating, thereby, that the difference in the two means was significant and in the predicted direction. Content validity of the items was ensured through rational logical analysis of the teachers, principals, and experts in the questionnaire construction. Also, correlation between total scores and item scores were used for
assuring validity. This approach assumes that the total score is valid; thus, the extent to which the item correlation varies with the total score is indicative of construct validity for the scale.

Table 4.3: Comparison of means of TOSS scores of teachers judged as more stress and less stress towards teaching occupation

<table>
<thead>
<tr>
<th>Judged stress</th>
<th>N</th>
<th>Mean TOSS score</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>More stress</td>
<td>15</td>
<td>58.53</td>
<td>8.87</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Less stress</td>
<td>15</td>
<td>23.93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.1.7 Usefulness

This tool has 20 items which cohere to produce a scale of Teachers Occupational Stress Scale for use to evaluate the stress faced by teachers towards teaching profession. It appears to be helpful for the principals and research scholars. The students of education and psychology can also use it to study the stressful experiences of teachers towards the occupation. The data, supporting the reliability, homogeneity, content validity and construct validity of this scale commend the instrument for further use. Further, studies are now needed in order to test the usefulness of this scale in specific research context. TOSS seems to represent a promising measure of teachers stress toward their occupations.

4.2 Teachers Job Satisfaction Scale (TJSS)

Job satisfaction is a primary requisite for any successful teaching learning process, as the quality of teaching depends upon the job satisfaction of teachers. A great number of instruments that measure the phenomenon of job satisfaction have been cited in the literature; some of the examples being; the Minnesota Satisfaction Questionnaire (MSQ) (Weiss et al., 1967); the Job Descriptive Index (JDI; Smith, Kendall & Hulin, 1969; Roznowski, 1989); the Job Satisfaction Survey (JSS; Spector, 1985); the Job in General Scale (JIG; Ironson et al., 1989); the Global Job Satisfaction (GJS; Quin & Shepard, 1974; Pond & Geyer, 1991; Rice, Gentile & McFarlin, 1991), etc.
It is obvious that teachers differ from typical employees in various ways. A knowledge of teacher's professional inner-world may guide educational policy and decision makers in nurturing teacher's professional well-being and consequently, helps in improving teaching. Therefore, instruments that usually measure such job satisfaction dimensions as appreciation, communication, coworkers, fringe benefits, job conditions, nature of work, organization itself, organizations' policies and procedures, pay, personal growth, promotion opportunities, recognition, security, supervision may not always match with teachers' job satisfaction aspects (Spector, 1997). Other researchers highlight such dimensions of job satisfaction as: students' characteristics and behavior, classroom control, availability of the resources, relations with students, colleagues and administrators (Ramatulasamma & Rao, 2003; Rosser, 2005; Sharma & Jyoti, 2009).

The Job Satisfaction Scale (JSS) developed by Hackman and Oldham (1974) is a 14-item scale designed to measure five specific satisfactions within the teacher's work environment: pay, job security, social, supervisory, and growth satisfaction. Altinisik (1998) computed the reliability of the JSS scale administering on different sample groups; an obtained a coefficient alpha of .85 for the Turkish teachers sample. Ayan and Kocacik (2010) constructed the Job Satisfaction Scale with the help of that given by Kuzgun, Sevim, and Hamaci (2005). The scale contains 20 items consisting of 14 positive and 6 negative items. It is accepted that when the scores obtained are high, job satisfaction of the individual, that is, satisfaction with the essence of the profession is high.

An Index of Job Satisfaction by Brayfield and Rothe (1951) comprises of 18 statements by which the teachers were asked to rate their responses to those statements on a Likert, five-point scale labelled strongly agree, agree, undecided, disagree and strongly disagree. The responses to these statements were scored from 1 to 5 for statements 1, 2, 5, 7, 9, 12, 13, 15 and 17 while the rest of the statements were scored from 5 to 1. The lower the score, the higher is the job satisfaction. Also, the original Brayfield-Rothe instrument was modified by Chenevey, Ewing and Whittington (2008) to remove out-of-vogue jargon, terms, or items. The reliability for the overall scale, using Cronbach's alpha, was reported as $\alpha = .75$ by them. Kelly (1993) employed the Overall Job Satisfaction Scale adopted and modified from Law (1987), Miskel and Gerhardt (1974) to measure the level of job satisfaction of the
assistant principals. An alpha coefficient of 0.7507 has confirmed the high reliability of the scale.

An eight-section self-administered questionnaire was specially devised for their study by Borg and Riding (1991a). The fourth section is devoted to job satisfaction, and asked teachers to indicate how satisfied or dissatisfied they were with their job in response to the question "Overall, how satisfied are you with teaching as a job?" Ofili, Usiholo and Oronsaye (2009) also used a 5 point Likert scale (ranging from very dissatisfied to very satisfied) to grade levels of satisfaction among Nigerian teachers. De Nobile and McCormick (2006) measured job satisfaction using an adapted version of the Teacher Job Satisfaction Questionnaire (TJSQ) developed by Lester (1987). Some items from the original version of the survey were omitted as they referred to aspects of work not pertinent to the larger study, leaving 51 of an original 77 items. Each item comprised a statement regarding supervision, recognition, working conditions, colleagues, responsibility and the work itself.

The MSQ (Weiss et al., 1967) is used worldwide to measure the job satisfaction of teachers. There have been enough evidences of its successful usage in various studies (Bester & Boshoff, 1997; Boshoff & Hoole, 1998; Van der Vyver, 1998). Singh (1989) developed Job Satisfaction Questionnaire that includes 20 items to measure the degree of job satisfaction. Each item was rated on five point rating scale ranging from highly satisfied to highly dissatisfied with a weighted score of 5 to 1. So far, it is found that many of the Job Satisfaction Survey's facets do not correspond to teachers' job satisfaction dimensions well. Nowadays, there is generally a widespread feeling that teachers, especially at the secondary level are in a state of unrest and hence, unsatisfied with their job. Secondary section being a recent evolution in the 80's, still remains in the evolving stage in the state of Uttar Pradesh and grievances of teachers are one and many in India. The investigator decided to construct and standardize an attitude scale to study the job satisfaction, so that the newly constructed scale may contain all the factors to measure the job satisfaction of secondary school teachers.

### 4.2.1 Procedure

As a first step towards the construction of the Teachers Job Satisfaction Scale (TJSS), the investigator has written 60 items expressive of attitude towards teaching
job after a careful study of related literature and discussion with several experienced principals, administrators and teachers. The draft of the scale thus prepared, was released for experts' opinion who were requested to judge the worth of each statement against the following criteria:

➢ The statement should be kept short, and in simple and understandable language.

➢ The statement should be clear and unambiguous semantically so that it is interpreted uniformly by all respondents.

➢ The statement should not be double-barreled, i.e. two statements in one — two statements should be asked rather than one; it should express one single idea or issue.

➢ Statement should not contain prestige bias — causing embarrassment or forcing the respondent to give false answer in order to look good.

➢ The statements should be grouped into specific topic as it would make it easier to understand and follow.

➢ The statement should be properly spaced and laid-out in the questionnaire as cluttered questionnaire is less likely to be answered.

➢ The statement should be relevant i.e. there should be congruence between the statement and the definition of the concept of TJSS as accepted in this study.

As a result of experts' comments some of the statements were modified and some omitted. The revised version of the initial TJSS contained 37 statements, which depicts high and low satisfaction toward teachers job. Nunnally (1967) recommends the use of negatively and positively worded items to reduce response rate when measuring the same construct. Instructions to the subjects required them to respond to each of the item on a 5-point scale, the response categories being 'strongly agree', 'agree', 'undecided', 'disagree', and 'strongly disagree'. For the construction of TJSS in the present study, Likert type scale has been employed and preferred to Thurston's technique for the reasons being; it is less laborious and less time consuming than the Thurstone technique. It does not require the opinions of a group of judges as to the degree of favorableness or unfavorableness each statement expresses. It is more reliable.
Likert approach gets a five point judgment on each item rather than the mere rejection or acceptance in the Thurstone scale. The Likert-type scale is easy to score. Several popular and widely used teacher job satisfaction scales have followed Likert's technique, for example, Brayfield and Rothe (1951) used the method of summated ratings (Likert's technique) in their survey because of its relative simplicity. Job Descriptive Index (JDI) developed by Smith, Kendall, and Hulin (1969) is also measured on a six-point Likert scale, and has emerged as a reliable facet measure over time (Kinicki et al., 2002), applicable across a variety of demographic groups (Golembiewski & Yeager, 1978; Jung, Dalessio, & Johnson, 1986).

4.2.2 Try-out

The initial form of Teachers Job Satisfaction Scale was administered to 118 teachers, which included 70 (59%) male and 48 (41%) female teachers, randomly sampled from 10 secondary schools of Aligarh district. These schools from which sample was chosen belong to different categories of management and range from good to poor in regard to standard of performance of their pupils, which bear an indirect account of teaching efficiency of their teachers. Thus, the sample selected for try-out of the Teachers Job Satisfaction Scale constituted a cross-section of the secondary school teachers. The investigator was successful in collecting 118 (81%) completed questionnaires from the approximately 145 teachers in the schools, by making personal visits to each school.

4.2.3 Scoring

The scale was constructed by making use of Likert's methods of summation to get a five point judgment on each item. Against each statement, five alternative responses, namely, 'Strongly Agree' (SA), 'Agree' (A), 'Undecided' (U), 'Disagree' (D) and 'Strongly Disagree' (SD) were given. Weights of 5, 4, 3, 2, and 1 were given for positive statements in the order of their favorableness and for negative statements, the scoring system is reversed. Thus, if one chooses 'Strongly Agree' response for a positive statement, he/she gets a score of '5' and for the same response, if the statement is negative one gets a score of '1'. Only for the 'Undecided' response, one gets always a score of '3' whether a statement is positive or negative. An individual's score in this scale is the sum total of the scores for all the statement by the subject.
(Summated Ratings). The higher the score, the more satisfied is the teacher with his/her job; and the lower the score, the more dissatisfied is the teacher with his/her job.

4.2.4 Item analysis

In the method of summated ratings, rejection or selection of statements is done on the basis of item analysis. An item analysis determines the discriminating power of each statement using the item total correlation by Pearson Product Moment Correlation Technique. The item analysis aimed to make the TJSS homogeneous by checking consistency of each item with the total test and discarding all such items as were found inconsistent. To achieve this end, scores on each item of the subjects were correlated with their total test scores (Table 4.4). The items found to have a correlation of 0.43 or less with the total test were discarded. Such items were seventeen in number. To remove the effect of the eliminated items scores of the subjects on them were deducted from their total score and item total correlation again computed in respect of the remaining 20 items. The reiterative procedure increased the original coefficient such that none of the 20 items were found to have a correlation less than 0.48 with total test (Table 4.5). It was considered sufficiently high size for retaining an item for the final form of the TJSS.

The finished form of the scale consisted of 20 items, out of which 04 were worded positively and 16 worded negatively to job satisfaction. Examples of both positive and negative type items are (i) teachers lead vocationally unsatisfied lives (ii) people give me much respect when they know that I am a teacher. Teachers' job satisfaction score in this scale is the sum total of the scores for all the statements answered by him/her (Summated ratings), where the possible range can be between 20 – 100 in the direction of increasing levels of job satisfaction. The higher the score in this scale, the greater will be the job satisfaction. Correlations for each of the 20 items constituting TJSS are reported in Table 4.5. Statement numbers correspond to these given in final version of the TJSS test. A specimen of TJSS is given in Appendix A-2.
Table 4.4 Item total correlations of the 37 items of the TJSS

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Correlation Coefficient</th>
<th>Item No.</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0.47</td>
<td>20.</td>
<td>0.20*</td>
</tr>
<tr>
<td>2.</td>
<td>0.57</td>
<td>21.</td>
<td>0.73</td>
</tr>
<tr>
<td>3.</td>
<td>0.70</td>
<td>22.</td>
<td>0.38*</td>
</tr>
<tr>
<td>4.</td>
<td>0.17*</td>
<td>23.</td>
<td>0.59</td>
</tr>
<tr>
<td>5.</td>
<td>0.55</td>
<td>24.</td>
<td>0.16*</td>
</tr>
<tr>
<td>6.</td>
<td>0.17*</td>
<td>25.</td>
<td>0.67</td>
</tr>
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<td>0.70</td>
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</tr>
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<td>0.49</td>
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<td>28.</td>
<td>0.24*</td>
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<td>0.44</td>
<td>29.</td>
<td>0.50</td>
</tr>
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<td>0.52</td>
<td>30.</td>
<td>0.21*</td>
</tr>
<tr>
<td>12.</td>
<td>0.36*</td>
<td>31.</td>
<td>0.54</td>
</tr>
<tr>
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<td>0.61</td>
<td>32.</td>
<td>0.20*</td>
</tr>
<tr>
<td>14.</td>
<td>0.36*</td>
<td>33.</td>
<td>0.06*</td>
</tr>
<tr>
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<td>0.27*</td>
</tr>
<tr>
<td>16.</td>
<td>0.37*</td>
<td>35.</td>
<td>0.41*</td>
</tr>
<tr>
<td>17.</td>
<td>0.49</td>
<td>36.</td>
<td>0.38*</td>
</tr>
<tr>
<td>18.</td>
<td>0.52</td>
<td>37.</td>
<td>0.61</td>
</tr>
<tr>
<td>19.</td>
<td>0.48</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Rejected items

Table 4.5 Item total correlations of the 20 items of the TJSS

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Correlation Coefficient</th>
<th>Item No.</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0.54</td>
<td>11.</td>
<td>0.61</td>
</tr>
<tr>
<td>2.</td>
<td>0.57</td>
<td>12.</td>
<td>0.48</td>
</tr>
<tr>
<td>3.</td>
<td>0.70</td>
<td>13.</td>
<td>0.77</td>
</tr>
<tr>
<td>4.</td>
<td>0.55</td>
<td>14.</td>
<td>0.67</td>
</tr>
<tr>
<td>5.</td>
<td>0.74</td>
<td>15.</td>
<td>0.66</td>
</tr>
<tr>
<td>6.</td>
<td>0.53</td>
<td>16.</td>
<td>0.52</td>
</tr>
<tr>
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<td>0.56</td>
</tr>
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<td>9.</td>
<td>0.61</td>
<td>19.</td>
<td>0.66</td>
</tr>
<tr>
<td>10.</td>
<td>0.54</td>
<td>20.</td>
<td>0.68</td>
</tr>
</tbody>
</table>
4.2.5 Reliability

Reliability of TJSS was calculated by using the scores of 118 subjects on 20 items of the final form. A split-half reliability coefficient was found by correlating scores of the subjects on odd items of the test with their scores on even items. The correlation coefficient thus obtained was 0.77 which when corrected by Spearman Brown Prophecy Formula increased to 0.87. Yet another method i.e. Cronbach Alpha was carried out on all the 20 items of the TJSS, yielded $\alpha = 0.89$ which is acceptable. Cronbach's alpha determines the internal consistency or average correlation of items in a survey instrument to gauge its reliability. In other words, it is a measure of how well each individual item in a scale correlates with the sum of the remaining items. It measures consistency among individual items in a scale.

Alpha coefficient ranges in value from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (i.e., questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: 1 = poor, 5 = excellent). The higher the score, the more reliable the generated scale is. Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature, while Streiner and Normal (1989) have suggested that alpha should be above 0.7, but not much higher than 0.9. Besides, the Wikipedia says that as a rule of thumb, a proposed psychometric instrument should only be used if an $\alpha$ value of 0.8 or higher is obtained on a substantial sample.

4.2.6 Validity

The method employed for establishing validity of the TJSS was based on principals' judgment method. The principals' of schools whose teachers had participated in the study were approached. They were asked to read carefully the descriptions of satisfied as well as dissatisfied behavior of teachers toward teaching, and identify those of the teachers of their respective schools whose job satisfaction behavior matched clearly with either of the two descriptions. In this way two groups of teachers, one having satisfied behavior and the other dissatisfied behavior towards teaching occupation were identified. The means of TJSS scores of those two groups were compared to test the hypothesis that the mean of TJSS scores of the group judged as satisfied behavior towards teaching would be significantly higher than the mean of TJSS scores of the group judged as dissatisfied behavior. For this purpose, a $t$ - test of the difference of the means of two independent, small sample was applied
and the value of ‘t’ calculated by using one – tailed test. The result of the comparison is contained in table 4.6.

Table 4.6: Comparison of means of TJSS scores of teachers judged as satisfied and dissatisfied towards teaching occupation

<table>
<thead>
<tr>
<th>Judged behavior</th>
<th>N</th>
<th>Mean TJSS score</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied behavior</td>
<td>15</td>
<td>67.27</td>
<td>8.37</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Dissatisfied behavior</td>
<td>15</td>
<td>45.13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The validation procedure yielded a t-value of 8.37 which was found significant at the 0.01 level indicating, thereby, that the difference in the two means was significant and in the predicted direction. The scale represents the ‘Universe of Content’ as it includes 20 statements from various dimensions of job satisfaction namely, interest and attitude towards teaching, salary and benefits, academic freedom, job security, inter-personal relationships, opportunities for professional development, and working environment. Due weightage was given to all the dimensions while selecting items. Hence, it has content validity. It has also construct validity as items were selected having the correlations equal to or more than 0.48. The scale was given to experts in the field of education and they agreed that the items in the scale were relevant to the objectives of the study. Hence, it has face validity also.

4.2.7 Usefulness

This tool developed and standardized by the investigator has 20 items which cohere to produce a scale of Teachers Job Satisfaction Scale for use to study the school climate and the satisfaction levels of secondary school teachers. It can prove to be useful for principals’ and research scholars. The students of education and psychology can also use it to find out and analyze various factors associated with teachers’ satisfaction or dissatisfaction, so that necessary steps can be taken to create an environment in which the human and professional needs of the teachers can be filled. The data, supporting the reliability, homogeneity, content validity and struct validity of this scale commend the instrument for further use. Further, ‘s are now needed in order to test the usefulness of this scale in specific research
context. TJSS seems to represent a promising measure of teachers’ satisfaction levels towards their occupations.

4.3 Work Values Scale (WVS)

4.3.1 Selection of work values

Several inventories of work values have been constructed explicitly for the purposes of prediction and counseling rather than to test the hypotheses concerning work behavior of individuals. Hammond’s Occupational Attitude Rating Scale (OARS, 1956), Steffire’s Vocational Values Inventory (VVI, 1962), Super’s Work Values Inventory (WVI, 1968), and the Minnesota Importance Questionnaire (MIQ; Gay et al., 1971), generated in the Minnesota studies are some of the examples. Super (1957) originally developed the WVI in conjunction with the Career Pattern Study. It yields score for 15 values. The initial form of the WVI was a forced-choice paired comparison of 225 items. A subsequent modification reduced the reliability of two scales below 0.70. Hendrix and Super (1968) recasted the scales into 45 items with 5-point Likert type responses. The reliabilities of the scales are presently all above 0.80, except for two with coefficients of 0.74 and 0.76.

Observation of the articles reviewed in the papers finds considerable variation in the number, nomenclature and organization of the work values employed. Table 4.7 lists the values named in the three of the inventories, plus the values employed by Rosenberg (1957), Schaffer (1953) and the satisfiers and dissatisfiers of Herzberg (1959). All of the six authors included some variants of security, prestige, and economic return. These values plus advancement and recognition might be called extrinsic factors, representing the outcomes of work, as contrasted with the mean. Starting with surroundings and ending at supervision might be the category of concomitants, as conceived by Ginzberg (1951). The values between associates and altruism lap the range of relationship with people on the job, but the factors starting with independence through to the end of list are likely all part of the job itself or extrinsic factors, rather than extrinsic or outcomes of worker.

Looking crosswise in the table, it may be observed that some value orientations are unique to a single author, and that some values incompletely fill in the categories defined by the remainder. Moral values in the MIQ (Lofquist & Dawis, 1978) stand in this position to way of life. Super’s supervisory relations combines technical and personal supervision in other schemes. Nevertheless, there is substantial
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Super</th>
<th>Herzberg</th>
<th>Rosenberg</th>
<th>Lofquist &amp; Dawis (MIQ)</th>
<th>Steffre</th>
<th>Schaffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Security</td>
<td>Job security</td>
<td>Secure future</td>
<td>Security</td>
<td>Security</td>
<td>—</td>
</tr>
<tr>
<td>2</td>
<td>Prestige</td>
<td>Status</td>
<td>Status, prestige</td>
<td>Social status</td>
<td>Prestige</td>
<td>Socio-economic status</td>
</tr>
<tr>
<td>3</td>
<td>Economic returns</td>
<td>Salary</td>
<td>Good deal of money</td>
<td>Compensation</td>
<td>Money</td>
<td>Economic security</td>
</tr>
<tr>
<td>4</td>
<td>Achievement</td>
<td>Achievement</td>
<td>Achievement</td>
<td>Achievement</td>
<td>—</td>
<td>Mastery and achievement, Recognition – approbation</td>
</tr>
<tr>
<td>5</td>
<td>Surroundings</td>
<td>Work conditions, company policy and administration</td>
<td>—</td>
<td>Working conditions, company policy and administration</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6</td>
<td>Associates</td>
<td>Interpersonal relations – peers</td>
<td>Work with people</td>
<td>Co-workers</td>
<td>—</td>
<td>Affection and interpersonal relationships</td>
</tr>
<tr>
<td>7</td>
<td>Management</td>
<td>Interpersonal relations – subordinates</td>
<td>Leadership</td>
<td>Authority</td>
<td>Control</td>
<td>Dominance</td>
</tr>
<tr>
<td>8</td>
<td>Supervisory relations</td>
<td>Interpersonal relations – superiors, Supervision technical</td>
<td>—</td>
<td>Supervision – human relations Supervision – technical</td>
<td>—</td>
<td>Dependence</td>
</tr>
<tr>
<td>9</td>
<td>Independence</td>
<td>—</td>
<td>Free of supervision</td>
<td>Independence</td>
<td>Job freedom</td>
<td>Independence</td>
</tr>
<tr>
<td>10</td>
<td>Altruism</td>
<td>Work itself</td>
<td>Helpful to others</td>
<td>Social service</td>
<td>Altruism</td>
<td>Self – expression Social welfare</td>
</tr>
<tr>
<td>11</td>
<td>Creativity</td>
<td>—</td>
<td>Creative, original</td>
<td>Creativity</td>
<td>Self-realization</td>
<td>Creativity and talent</td>
</tr>
<tr>
<td>12</td>
<td>Way of Life</td>
<td>Factors in personal life</td>
<td>—</td>
<td>Moral values</td>
<td>—</td>
<td>Moral value scheme</td>
</tr>
<tr>
<td>13</td>
<td>Intellectual Stimulation</td>
<td>Possibility of growth</td>
<td>Use special abilities</td>
<td>Ability utilization</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>14</td>
<td>Variety</td>
<td>Responsibility</td>
<td>—</td>
<td>Variety Responsibility</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>15</td>
<td>Aesthetics</td>
<td>—</td>
<td>Adventure</td>
<td>Activity</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
agreement on 12 to 15 value categories, and this set may be taken as fundamental. Therefore, the researcher could adopt any of the lists of work values, or she could pick-up work values from the six lists according to a rationale which could well serve her purpose. In situation such as this, the common practice prefers the criteria of frequency of occurrence. Following this practice, the final selection of work values was made on the basis of popularity or commonness of different work values.

1. Good Economic Return and High Status, common to all six lists were selected.

2. Power/Authority, Security of Service, Freedom and Social Service, common to five lists were selected.

3. Cooperating Colleagues, Advancement and Intellectual Stimulation common to four lists were selected.

4. Supervision, common to three lists was selected.

5. Work Consistent with Life Goals and Values, common to one list was selected.

The final selected lists of eleven work values not only forced to cover all aspects of work, but were supposed to be relevant to the teacher's job. The work value scale is produced as Appendix A-3.

4.3.2 Scoring

The numbers in identifying each of the eleven work values are of course, arbitrary. It is convenient, however, to rearrange the statements in rank order with the most favorable — seeming work value being assigned the number 1 and the least favorable — seeming work value the number 11.

The eleven relevant work values were presented to the teachers. Each teacher was asked to judge as to which of the values is more important to him/her than the other. In this way, data regarding the number of occasions on which each value was judged more important than other was obtained. A frequency matrix was prepared
with the help of the data obtained. The total number of individuals making the comparative judgments is 608 (N). Dividing the total cell entries in the data matrix by N (number of teachers) gives the weightage of each work values. In this study (due to the scoring process) the higher mean weightage work values show less preferred work value, while the less mean weightage values show more preferred work value.

4.4 Summary

In the present chapter, constructions and standardizations of TOSS and TJSS, along with WVS are reported. The TOSS is a 20 item Likert type scale in which all the items are negatively worded to stress. Responses are scored on a five point scale, higher the score on the TOSS indicate high level of stress of the teachers.

By the standard usually applied, TOSS appears to be an efficient instrument in terms of its reliability and validity. Split-half reliability of the full test is 0.91 which can be considered satisfactory for this type of test. Cronbach Alpha yielded a coefficient of 0.92. Considering the fact that Alpha correlation under estimate reliability, a power of the TOSS, to discriminate between more stress behavior and less stress behavior was also well-proved by t-test applied to study the significance of difference between means of TOSS scores of the two groups. Therefore, the TOSS scale can, thus, be recommended as a reliable and valid instrument for use by researchers in studying the stress of primary, secondary and senior secondary teachers.

TJSS is also a 20 item Likert type scale in which four are positive worded and sixteen are negatively worded to satisfaction towards job. A five point scale is used to score the responses. Higher the score on the TJSS, higher will be the job satisfaction of teachers. Split-half reliability of the full test is 0.87. Cronbach Alpha yielded a coefficient of 0.89 which can be taken as a satisfactory measure. Thus, TJSS can be recommended as a reliable and valid job satisfaction measure of primary, secondary and senior secondary teachers.

The characteristics of the work environment that are tapped in the WVS rank questionnaire developed by the investigator encompass 11 work values, which are an outgrowth of a careful and detailed content analysis of the several work value measures. For the convenience, it was suggested to rearrange the statements in the
order of their rank preference in the WVS with the most favorable -- seeming work value being assigned the number 1 and the least favorable -- seeming work value the number 11. Therefore, WVS stands as a comprehensive measure of preferences of work values for primary, secondary and senior secondary teachers.
Chapter-5
Presentation, Analysis and Interpretation of Data
Chapter 5
Presentation, Analysis and Interpretation of Data

Once the data for the research study has been collected, the next step usually involves the analysis of that data. The choice of the analytical procedures depends on several factors, including the type of research question that were asked originally and the characteristics of the data that were collected (Sowell & Casey, 1982). Analysis refers to the process by which sense and meaning are made of the data gathered in qualitative research, through categorizing, ordering, manipulating and summarizing of data, so as to obtain answers to the research questions. Analysis serves a two-fold purpose — at first, it aims to extract as much information as possible i.e. pertinent to the subject under consideration. Secondly, it aims to reduce data to intelligible and interpretable form so that the relations of research can be studied and tested.

Since the general purpose of conducting a research study is to answer questions in a systematic manner, the interpretation of the results must focus first on the question that was asked, or inferred, in the problem statement. Thus, interpretation takes the results of analysis, makes inferences pertinent to the research relations studied, and draws conclusions about these reported relations. The researcher who interprets research results searches them for their meaning and implications. This is generally done in two ways — in one way, the relations within the research study and its data are interpreted. In other way, the broader meaning of the research data is sought, by comparing the results and the inferences drawn within the data to theory and to other research results and conclusions either of one’s own or of other researchers. More important is that one compares one’s results with demands and expectations of the theory.

The present chapter concerns with presentation, analysis and interpretation of the data. In this study the data has been critically analyzed through textual discussions, tabular and graphical devices. The textual discussions have been utilized to point out generalizations and significant interpretations. The tables and figures have been used to clarify significant relationships. They are so constructed that they are self-explanatory. To bring the study to its successful fruition, the total data (608 teachers) collected in regard to teachers’ occupational stress in relation to certain demographic factors, job satisfaction, work values and pupil control ideology, is being
systematically organized, analyzed and interpreted. The raw data was first organized into separate tables for each variable of the study. For computation of the needed statistics and application of appropriate statistical tests, most of the data was analyzed on Statistical Package for Social Sciences (SPSS, version 16.0). A part of the data was treated manually.

The descriptive statistical measures used in testing the hypotheses are — Multiple Regression, which is an extension of bivariate regression analysis, that allows for the simultaneous investigation of the effect of two or more independent variables on a single dependent variable (Zikmund, 2000), t-test for testing the difference between mean of occupational stress scores of two groups using two-tailed test, F-test is applied where more than two groups are involved in this study. F-test is used to see the overall significant difference between more than two means. F-test, when found significant, employs a need to use t-test for further investigation, and when found insignificant there is no need to use t-test. Pearson Product Moment Correlation is also applied wherever needed. The statistical procedures and descriptive statistics — mean (M), standard deviation (SD), along with degree of freedom (df) and t-values of the relevant variables for the research group as a whole are indicated in the concerned tables and figures, and briefly discussed in this chapter.

The present chapter is devoted to presentation, analysis, and interpretation of the data, along with its discussion as per the following scheme:

➢ Study of general pattern of occupational stress of secondary school teachers.

➢ Study of the effect of demographic factors on teachers’ stress toward their occupation.

➢ Study of the effect of job satisfaction and pupil control ideology on teachers’ stress toward their occupation.

➢ Study of job satisfaction of teachers and their stress toward occupation.

➢ Study of pupil control ideology of teachers and their stress toward occupation.

➢ Study of the effect of work values on teachers’ stress toward their occupation.
5.1 General pattern of occupational stress of secondary school teachers

The data analyzed to test the tenability of the first hypothesis regarding general pattern of occupational stress of teachers', yielded the following results:

To determine the degree of occupational stress experienced by secondary school teachers, their scores on the Teachers Occupational Stress Scale were divided into three categories i.e., less stress, moderate and more stress. The results appear in table 5.1. A score in the range of 20-50 scores was determined as Less Stress. Scores ranging from 51-70 was taken as an indicator of Moderate Stress, whereas a score above 70 upto 100 was determined as More Stress level. An examination of table 5.1 further shows that the percentages of less stress, moderate and more stress are 47.70, 40.95 and 11.35 respectively. In male sub-group, these percentages translate into 39.50, 45.91 and 14.59 respectively while in female sub-group it is 54.74, 36.70 and 8.56 respectively. From these results it is evident that there is a lot of variation in teachers' stress toward their occupation, with nearly half of the teachers experiencing less stress toward their occupation; while about approximately 11% indicated more occupational stress. The results of the analysis also make it clear that the percentage of female teachers experiencing less occupational stress is greater than the male teachers. The graphical presentation of the percentages of scores of these groups is given in fig. 5.1.

5.2 Combined and individual relationship of demographic factors with teachers' occupational stress

To understand the effects of demographic factors on teachers' stress toward their occupations, step-wise multiple regression analysis was used. With teachers' occupational stress as the dependent variable and gender, experience, qualification, salary and subjects taught as the independent variables, a regression equation to represent this relationship is computed. Regress results are shown in table 5.2 (Part I and II). Table 5.2 (Part I) depicts the computed F-value and $R^2$ to understand the overall significance of the regression model. The prediction equation which contained all independent variables is found to be significant ($R = 0.17$, $R^2 = 0.03$, $F = 3.44$, $P<0.01$). Therefore, the dependent variable is related directly to these independent variables.
Table 5.1: Percentages of teachers having less, moderate and more occupational stress (total and gender-wise)

<table>
<thead>
<tr>
<th>Groups</th>
<th>No. of teachers</th>
<th>Occupational stress sub-groups</th>
<th>No. of teachers</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>608</td>
<td>Less stress</td>
<td>290</td>
<td>47.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate</td>
<td>249</td>
<td>40.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More stress</td>
<td>69</td>
<td>11.35</td>
</tr>
<tr>
<td>Male</td>
<td>281</td>
<td>Less stress</td>
<td>111</td>
<td>39.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate</td>
<td>129</td>
<td>45.91</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More stress</td>
<td>41</td>
<td>14.59</td>
</tr>
<tr>
<td>Female</td>
<td>327</td>
<td>Less stress</td>
<td>179</td>
<td>54.74</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate</td>
<td>120</td>
<td>36.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More stress</td>
<td>28</td>
<td>8.56</td>
</tr>
</tbody>
</table>

![Bar chart showing distribution of teachers by occupational stress level and gender.](chart.png)

Fig. 5.1: Distribution of teachers in each category on the basis of their occupational stress
Table 5.2 (Part I) shows that the coefficient of multiple determinations indicated that these variables combined together accounted for 10% of the variability in teachers' stress toward their occupation. Table 5.2 (Part II) lists detailed data on the statistical coefficients of the regression model. The standardized beta weights indicate that the relative contributions of these variables in predicting occupational stress are (table 5.2, Part II) – the gender contributes 12% (Beta = 0.12, t = 2.90, P< 0.01), teaching experience contributes 1% (Beta = -0.01, t = 1.98, P< 0.05), qualification contributes 11% (Beta = -0.11, t = 2.54, P<0.01), salary contributed 7% (Beta = 0.07, t = 1.37, P >0.05) and subjects taught contributed 1% (Beta = 0.01, t = 0.18, P>0.05).

As seen in table 5.2 (Part II), occupational stress is negatively related to teaching experience, qualification, subjects taught and positively related to gender and salary. The result shows that gender is the best predictor of occupational stress, qualification is second in order, salary stands at third place, and teaching experience along with subjects taught come last in the sequence. Therefore, it is found that the

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>Multiple R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Standard error</th>
<th>df</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Stress</td>
<td>0.17</td>
<td>0.03</td>
<td>0.10</td>
<td>15.06</td>
<td>602</td>
<td>3.44</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

Table 5.2: Multiple regression analysis for predicting occupational stress using gender, teaching experience, qualification, salary and subjects taught

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Predictor variables</th>
<th>B</th>
<th>Standard error</th>
<th>β</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gender</td>
<td>3.68</td>
<td>1.27</td>
<td>0.12</td>
<td>2.90</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>2</td>
<td>Teaching experience</td>
<td>-0.19</td>
<td>0.66</td>
<td>-0.01</td>
<td>1.98</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>3</td>
<td>Qualification</td>
<td>-1.81</td>
<td>0.71</td>
<td>-0.11</td>
<td>2.54</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>4</td>
<td>Salary</td>
<td>2.10</td>
<td>1.53</td>
<td>0.07</td>
<td>1.37</td>
<td>N.S.</td>
</tr>
<tr>
<td>5</td>
<td>Subjects taught</td>
<td>-0.09</td>
<td>0.48</td>
<td>-0.01</td>
<td>-0.18</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

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predictor demographic factors are related to occupational stress of teachers. Hence, the second hypothesis stating that “the predictor demographic factors are not the significant predictors of teachers stress toward their occupation” is rejected on the basis of the present result.

5.3 Relationship between occupational stress and demographic factors

5.3.1 Relationship between occupational stress and gender

It is evident from the result shown in table 5.3 that 281 (46.22%) male and 327 (53.78%) females comprise the total number of respondents. This portrays that there are more female teachers than male teachers teaching in secondary schools in Uttar Pradesh, India. The mean occupational stress scores of male and female teachers were found 53.40 and 49.60, with SDs of 15.44 and 14.81 respectively. When the means of two groups compared, the t-test yielded a statistically significant gender difference between the mean scores of male and female teachers on the overall occupational stress scale (df = 606, t = 3.09, P<0.01). More specifically, male teachers score significantly higher (M = 53.40, SD = 15.44) as compared to the females (M = 49.60, SD = 14.81). Thus, more occupational stress was observed among the male teachers than the females. The relevant results are graphically presented in fig. 5.2. The analysis do not confirms the prediction hypothesized in this study for the present sample. A relationship between occupational stress and gender has been demonstrated by the findings.

5.3.2 Relationship between occupational stress and teaching experience

Differences in the occupational stress among teachers’ and the number of years of teaching experience were investigated by categorizing the data into four groups i.e. having experiences of 0-5 years, 6-10 years, 11-15 years and 16 onwards, on the basis of teaching experience. As shown in table 5.5, of the 608 respondents 181 teachers had between 0-5 years teaching experience, 183 had between 6-10 years, 113 had between 11-15 years and 131 had more than 16 years of experience. The mean occupational stress scores of these four groups are 48.66, 55.11, 51.37 and 49.81
Table 5.3: Comparison of mean occupational stress scores on the basis of gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean score</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>281</td>
<td>53.40</td>
<td>15.44</td>
<td>606</td>
<td>3.09</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Female</td>
<td>327</td>
<td>49.60</td>
<td>14.81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 5.2: Mean occupational stress scores on the basis of gender
respectively. The years of work-experiences of teachers was compared with the help of F-test through occupational stress. The mean scores of these four groups when put to analysis of variance give F-value as 6.22, which is significant at 0.01 level, with df =3, 604 (table 5.4.). This implies that there is significant overall difference in the means of these four groups. Hence, t-test was applied for further investigation.

When t-test was applied for further investigation, the mean scores, SD and t-values obtained are contained in table 5.5. The mean occupational stress scores of teachers' who had an experience of 0-5 years is 48.66, SD=15.30, 6-10 years is 55.11, SD=16.53, 11-15 years is 51.37, SD=14.28 and with 16 years onwards experience in teaching, the mean occupational stress score is 49.81, SD=12.90. t-test was applied to compare each mean to every other means, which showed 3 t's out of 6 to be significant. An investigation of the provided mean scores reveal that teachers with an experience of 6-10 years have significant highest mean occupational stress scores (M=55.11, SD=16.53) than the other three teaching experience groups. Similarly, those teachers with 11-15 years of teaching experience have significantly higher occupational stress scores (M=51.37, SD=14.28) than those with 0-5 and 16 onwards groups; and teachers in the 16 onwards group have significantly higher occupational stress scores (M=49.81, SD=12.90) than those with 0-5 years of experience group. Further, teachers with the least teaching experience (0-5 years) in this sample reported significantly lowest mean occupational stress scores as compared to other three groups (M=48.66, SD=15.30).

From the trend it is quite clear that a gain in the teaching experience to a certain time period increases the occupational stress in teachers; and after a certain period the stress decreases gradually. Teachers with 6-10 years of experience that records the highest mean occupational stress score, is the most stressful group whereas teachers with 0-5 years of experience is the least stress with the lowest mean occupational stress score. The graphical presentation is given in fig. 5.3.
Table 5.4: Analysis of variance in respect to occupational stress scores and experience in teaching

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>4209.48</td>
<td>1403.16</td>
<td>6.22</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Within groups</td>
<td>604</td>
<td>136299.20</td>
<td>225.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>607</td>
<td>140508.68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.5: Comparison of mean occupational stress scores on the basis of experience in teaching

<table>
<thead>
<tr>
<th>Teaching experience groups</th>
<th>N</th>
<th>Mean score</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 (I)</td>
<td>181</td>
<td>48.66</td>
<td>15.30</td>
<td>x</td>
</tr>
<tr>
<td>6-10 (II)</td>
<td>183</td>
<td>55.11</td>
<td>16.53</td>
<td>3.86**</td>
</tr>
<tr>
<td>11-15 (III)</td>
<td>113</td>
<td>51.37</td>
<td>14.28</td>
<td>1.52</td>
</tr>
<tr>
<td>16 onwards (IV)</td>
<td>131</td>
<td>49.81</td>
<td>12.90</td>
<td>0.70</td>
</tr>
</tbody>
</table>

*P < 0.05 with df= 294
**P < 0.01 with df= 362 and 312, respectively.

Fig. 5.3: Mean occupational stress score on the basis of teaching experience
5.3.3 Relationship between occupational stress and qualification

In order to study the relationship between occupational stress and qualification, the data was splitted on the basis of teachers' qualification into three groups i.e untrained, TGT (trained graduate teachers) and PGT (post-graduate teachers). Table 5.7 displays that 33.88% (206 teachers) are not certified in their current teaching assignment, 13.16% (80) graduate teachers hold a training certificate and 52.96% (322) constituted the majority of post graduate teachers. The mean occupational stress scores of the teachers of these groups are obtained as 51.96, 57.22 and 49.50. The mean scores of these three groups were put to analysis of variance and they give F-value as 8.72, which is significant at 0.01 level, with df = 2, 605 (table 5.6). This implies that there is significant overall difference in the means of these three groups. Hence, t-test was applied for further investigation.

On further investigation, the t-test applied gave the mean scores, SD's and t-values as tabulated in table 5.7. The mean occupational stress scores of untrained teachers is 51.96, SD = 15.61; in case of TGT teachers, the mean occupational stress score is 57.22, SD = 15.39 and in case of teachers who were PGT's, the mean occupational stress score obtained is 49.50, SD = 14.55. The calculated t-value between untrained and TGT is 2.57 (P<0.05, df = 284), untrained and PGT is 1.84 and lastly between TGT and PGT is 4.20 (P<0.01, df = 400). From the trend it is quite clear that with the urge to have an increase in lower (untrained and TGT) educational levels, there is an increase in occupational stress among teachers; and with the attainment of highest (PGT) educational levels, the stress levels decrease accordingly. The graphical presentation in fig. 5.4 displays that the lowest mean occupational stress score is found of the teachers who are PGT's and on the other hand the highest mean occupational stress score is found of the teachers who have TGT degree.
Table 5.6: Analysis of variance in respect to occupational stress scores and qualification of teachers

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>3936.54</td>
<td>1968.27</td>
<td>8.72</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Within Groups</td>
<td>605</td>
<td>136572.14</td>
<td>225.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>607</td>
<td>140508.68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.7: Comparison of mean occupational stress scores on the basis of qualification

<table>
<thead>
<tr>
<th>Qualification groups</th>
<th>N</th>
<th>Mean score</th>
<th>SD</th>
<th>t</th>
<th>U</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untrained (U)</td>
<td>206</td>
<td>51.96</td>
<td>15.61</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TGT (T)</td>
<td>80</td>
<td>57.22</td>
<td>15.39</td>
<td>2.57</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGT (P)</td>
<td>322</td>
<td>49.50</td>
<td>14.55</td>
<td>1.84</td>
<td>4.20&quot;</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

*P < 0.05 with df = 284
**P < 0.01 with df = 400

Fig. 5.4: Mean occupational stress score on the basis of qualification
5.3.4 Relationship between occupational stress and salary

To identify the effect of monthly salary on teachers’ occupational stress, the teachers were grouped in two categories. One those who were getting monthly salary upto 15,000 INR and others those who were earning more than 15,000 INR. It is clear from the table 5.8 that the number of teachers’ earning upto 15,000 is 386 (63.49%) and 15,000 onwards is 222 (36.51%). The mean occupational stress score of teachers earning upto 15,000 is 50.73 (SD=15.93), while the mean occupational stress score of teachers earning 15,000 onwards is 52.44 (SD=13.85). Application of t-test shows that there is no statistical significant difference between monthly salary and occupational stress among secondary school teachers, that is to say, teachers with higher monthly income are not necessarily having higher stress levels than their colleagues with lower monthly income, vice versa. Fig. 5.5 shows the mean score of occupational stress of the two groups.

A perusal of t-test in table 5.9 shows that the computation of means and SD’s for male and female sub-samples earning 15,000 INR and 15,000 INR onwards salary showed that males have more occupational stress in both groups than female counterparts. But application of t-test shows that there is no statistical significant difference in 15,000 salary group. However, 15,000 INR onwards salary group showed a statistical significant difference (t = 4.51, P<0.01, df = 220). The graphical presentation is given in fig. 5.6. The analysis confirms the prediction hypothesized in this study for the present sample. A relationship between occupational stress and salary has not been demonstrated by this finding.
Table 5.8: Comparison of mean occupational stress scores of two groups of salary of teachers

<table>
<thead>
<tr>
<th>Salary</th>
<th>N</th>
<th>Mean score</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 15,000 INR</td>
<td>386</td>
<td>50.73</td>
<td>15.93</td>
<td>606</td>
<td>1.34</td>
<td>N.S.</td>
</tr>
<tr>
<td>15,000 INR onwards</td>
<td>222</td>
<td>52.44</td>
<td>13.85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 5.5: Mean occupational stress score on the basis of salary
Table 5.9: Gender-wise comparison of mean occupational stress scores on the basis of salary

<table>
<thead>
<tr>
<th>Salary</th>
<th>Gender</th>
<th>N</th>
<th>Mean score</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 15,000 INR</td>
<td>Male</td>
<td>146</td>
<td>51.29</td>
<td>17.09</td>
<td>384</td>
<td>0.55</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>240</td>
<td>50.38</td>
<td>15.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15,000 INR onwards</td>
<td>Male</td>
<td>135</td>
<td>55.67</td>
<td>13.12</td>
<td>220</td>
<td>4.51</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>87</td>
<td>47.44</td>
<td>13.51</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 5.6. Gender-wise mean occupational stress scores on the basis of two groups of salary
5.3.5 Relationship between occupational stress and subjects taught

Subjects taught by teachers and its relationship with occupational stress score was explored in this study. To find out the effect of subjects taught on the occupational stress of school teachers', the total sample was categorized into four groups of teachers on the basis of their chosen field of subject taught per day, i.e. languages, arts, social sciences and sciences. The number of teachers in these groups are 214 (35.20%), 35 (5.76%), 144 (23.68%) and 215 (35.36%) respectively. The mean occupational stress score of these groups were observed as 51.60, 49.31, 50.15 and 52.24 respectively. The scores of these groups were put to analysis of variance to find out whether there is any significant difference between the groups in relation to their subjects taught in class. The results are given in table 5.10.

The results of one-way analysis of variance of the mean scores of the four groups yields a non-significant F-value of 0.77, with df = 3, 604. This implies that there is no significant difference in the means of these groups (fig. 5.7), i.e. to say, occupational stress is not found among the teachers teaching languages, arts, social sciences and sciences. Hence, t-test could not be applied for further investigation. As there are slight differences in the level of stress among teachers according to the subjects taught; fig. 5.7 portrays that science teachers constitute the most stress group whereas; arts teachers are the least stress group being ranked according to the mean of occupational stress among the subject groups of teachers.

Not all of the aforementioned results and analyses confirm the prediction hypothesized in the study for the present sample. A relationship between occupational stress of the teachers and gender, experience in teaching and qualification has been demonstrated by the above findings. Hence, the third hypothesis stating that, “there is no significant difference in occupational stress in relation to demographic factors of the teachers” is partially rejected. There occurs a relationship between occupational stress of teachers' and three of the five demographic factors i.e. gender, teaching experience and qualification. On the other hand, this study fails to validate the prediction hypothesized in the study for the present sample. An association between teachers’ occupational stress and salary, and subjects taught has not been demonstrated by these findings.
Table 5.10: Analysis of variance in respect to occupational stress scores and subjects taught by teachers

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>535.63</td>
<td>178.54</td>
<td>0.77</td>
<td>N.S.</td>
</tr>
<tr>
<td>Within Groups</td>
<td>604</td>
<td>139973.04</td>
<td>231.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>607</td>
<td>140508.67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 5.7: Mean occupational stress score on the basis of subjects taught
5.4 Combined and individual effect of job satisfaction and pupil control ideology on teachers' stress toward their occupation

Multiple regression analysis was used to ascertain how teachers' occupational stress might be predicted by job satisfaction and pupil control ideology. Regression equations were generated using a step-wise procedure. The prediction equation which contained both the independent variables is significant (R = 0.83, R² = 0.69, F = 672.43, P < 0.01). Therefore, the dependent variable is related directly to the independent variables. Table 5.11 (Part I) shows that the coefficient of multiple determinations indicated that these variables combined together accounted for 69% of the variability in teachers' stress toward their occupation. The regression coefficients of the variables presented in table 5.11 (Part II) indicate a significant role of these variables in predicting occupational stress: the job satisfaction contributes 74% (Beta = -0.74, t = 29.92, P <0.01) and pupil control ideology contributed 18% (Beta = 0.18, t = 7.41, P <0.01). As seen in table 5.11 (Part II), an inverse relationship was noted between the job satisfaction and teachers' occupational stress, meaning that an increase in job satisfaction levels would bring about a decrease in occupational stress. Also, occupational stress is positively related to pupil control ideology, meaning that with an increase in the custodial behavior of teachers', occupational stress would increase accordingly. The result shows that job satisfaction is the best predictor of occupational stress, and pupil control ideology comes next to it. Therefore, it is found that the predictor factors influence the occupational stress of teachers. Hence, the

Table 5.11: Multiple regression analysis for predicting occupational stress using job satisfaction and pupil control ideology

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>Multiple R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Standard error</th>
<th>df</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational stress</td>
<td>0.83</td>
<td>0.69</td>
<td>0.69</td>
<td>8.49</td>
<td>2, 605</td>
<td>672.43</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

Multiple Regression Part II

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Predictor variables</th>
<th>B</th>
<th>Standard error</th>
<th>B</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Job satisfaction</td>
<td>-0.94</td>
<td>0.03</td>
<td>-0.74</td>
<td>29.92</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>2</td>
<td>Pupil control ideology</td>
<td>0.29</td>
<td>0.04</td>
<td>0.18</td>
<td>7.41</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>
fourth hypothesis stating that, “the predictor factors (job satisfaction and pupil control ideology) are not the significant predictors of teachers stress toward their occupation” is rejected on the basis of the present result.

5.5 Relationship between occupational stress and job satisfaction

To investigate the relationship between occupational stress and job satisfaction of secondary school teachers, the measure of Teachers Occupational Stress Scale was correlated with the Teachers Job Satisfaction Score using Pearson Product Moment Correlation, and a significant negative relationship is found between job satisfaction scores and occupational stress scores ($r = -0.81$). The negative direction of the correlation suggests that higher job satisfaction is associated with lower levels of occupational stress, and vice versa. In other words, the findings indicated that increase of occupational stress would lower job satisfaction of the teachers.

To analyze the influence of job satisfaction on occupational stress the whole sample is divided into three categories as less satisfied – having satisfaction score ranging from 20-50 and this group constitutes teachers who are little satisfied being a teacher, the second category is named as moderate satisfied – having scores in the range 51-70 and constituting of teachers who have satisfaction level not very high but of medium level. The last category i.e. more satisfied comprises of teachers having scores ranging from 71-100 and constituting of teachers who are very much involved in their teaching activities and are highly satisfied being a teacher.

From calculated occupational stress score, it is obtained that 40 (6.58%) teachers fall under less satisfied group, 332 (54.60%) teachers are under moderate satisfied group and the remaining 236 (38.82%) comprise the more satisfied group. To determine the relationship between job satisfaction and occupational stress of the teachers, the three job satisfaction categories of the sample are selected along with stress towards occupation scores. Analysis of variance was employed to determine the significance of difference in occupational stress scores of the teachers with different groups of job satisfaction. The mean occupational stress scores of these groups are 68.82, 59.12 and 37.47 respectively. The total sum of squares between and within the means of the teachers was calculated. The F ratio comes out to be 374.63 and is found...
Table 5.12: Analysis of variance in respect to occupational stress scores and job satisfaction

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>77737.75</td>
<td>38868.88</td>
<td>374.63</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Within Groups</td>
<td>605</td>
<td>62770.92</td>
<td>103.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>607</td>
<td>140508.68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.13: Comparison of mean occupational stress scores on the basis of three groups of job satisfaction

<table>
<thead>
<tr>
<th>Job satisfaction</th>
<th>N</th>
<th>Mean score</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Less satisfied</td>
</tr>
<tr>
<td>Less Satisfied</td>
<td>40</td>
<td>68.82</td>
<td>7.90</td>
<td>x</td>
</tr>
<tr>
<td>Moderate Satisfied</td>
<td>332</td>
<td>59.12</td>
<td>11.05</td>
<td>5.39**</td>
</tr>
<tr>
<td>More Satisfied</td>
<td>236</td>
<td>37.47</td>
<td>9.21</td>
<td>20.30**</td>
</tr>
</tbody>
</table>

All t's are significant at <.01 level

Fig. 5.8: Mean occupational stress scores on the basis of three groups of job satisfaction
significant at 0.01 level for df = 2, 605 (table 5.12). This implies that there is a significant overall difference in the means of these three groups. Hence, t-test is applied for further investigation.

When t-test is applied, the calculated mean scores, SD$^{13}$ and t-values obtained are given in table 5.13. Significant differences are obtained among all the three means of the three groups less, moderate and more satisfied ($t = 5.39, P < 0.01, df = 370; t = 20.30, P < 0.01, df = 274$ and $t = 24.63, P < 0.01, df = 566$). The results clearly show that as the job satisfaction of the teachers increases their occupational stress decreases accordingly (table 5.13). Since less satisfied group teachers have significantly higher occupational stress than the moderate and more satisfied group teachers, and moderate satisfied group has significant higher occupational stress compared to more satisfied group, therefore, there is observed a relationship between job satisfaction and occupational stress. The graphical presentation is given in fig. 5.8.

Further, to get the gender-wise analysis in the different job satisfaction groups, t-test is applied to the male and female sub-samples of less, moderate and more satisfied groups. From the analysis it is found that there is no significant difference in the male and female teachers in less, moderate and more job satisfaction groups (df = 38, $t = 0.51$; df = 330, $t = 0.64$ and df = 234, $t = 1.53$) respectively. It is also seen that females in less satisfied and more satisfied groups have greater mean occupational stress scores ($M = 69.41, M = 38.12$) than their male counterparts ($M = 68.11, M = 36.19$), while in moderate satisfied group males were found to have greater mean occupational stress score ($M = 59.47$) than the females ($M = 58.68$). The result shows a trend that female in the two groups have more occupational stress than the male counterparts, but this has not been statistically proved. Results are contained in table 5.14 and graphical presentation is shown in fig. 5.9.
Table 5.14: Gender-wise comparison of occupational stress scores on the basis of three groups of job satisfaction

<table>
<thead>
<tr>
<th>Job Satisfaction</th>
<th>Gender</th>
<th>N</th>
<th>Mean score</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Satisfied</td>
<td>Male</td>
<td>18</td>
<td>68.11</td>
<td>10.26</td>
<td>38</td>
<td>0.51</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>22</td>
<td>69.41</td>
<td>5.47</td>
<td>38</td>
<td>0.51</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate Satisfied</td>
<td>Male</td>
<td>183</td>
<td>59.47</td>
<td>10.95</td>
<td>330</td>
<td>0.64</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>149</td>
<td>58.68</td>
<td>11.18</td>
<td>330</td>
<td>0.64</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More Satisfied</td>
<td>Male</td>
<td>80</td>
<td>36.19</td>
<td>10.56</td>
<td>234</td>
<td>1.53</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>156</td>
<td>38.12</td>
<td>8.39</td>
<td>234</td>
<td>1.53</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

Fig. 5.9: Gender-wise mean occupational stress scores on the basis of three groups of job satisfaction
5.6 Combined and individual effect of work values on teachers' stress toward their occupation

A standard multiple regression procedure is performed in order to assess the relationship between occupational stress of the teachers' as the dependent variable and 11 work values (i.e. good economic return, high status/ prestige, opportunities of human/ social service, friendly/ cooperating colleagues, security of service, fair/ sympathetic supervisions, opportunities of further progress/ advancement, opportunities of intellectual stimulation, work consistent with my life goals/ values, opportunities of exercising power/ authority and freedom in my work) as the independent variables.

Table 5.15 (Part I) shows that the eleven set of work values when taken together yielded a multiple regression coefficient (R) of 0.45, a multiple R square of 0.20 and adjusted R square of 0.19. The interpretation of this is that 19% of the variance in the teachers' occupational stress can be explained by the combined influence of the eleven work values. The analysis shows that R is significantly different from zero (F = 13.80, P <0.01, df = 11, 596). This indicates that the effectiveness of the predictor variables in predicting teachers' occupational stress could not have occurred by chance.

Table 5.15 (Part II) shows that occupational stress is negatively related to all the eleven work values. The result shows that opportunities of exercising power/ authority by the teachers' seems to be the strongest factor which predicts their occupational stress with regression weights of 3.00 at P <0.01 and contributes 61% of the observed variance, this was followed by good economic return (2.04, P <0.01 contributing 47% of the observed variance, high status/ prestige with regression weights of 1.46 at P <0.05 contributing 33% of the observed variance, friendly/ cooperating colleagues (1.67, P <0.05 contributing 31% of the observed variance) and fair/ sympathetic supervisions (1.59, P <0.05 contributing 28% of the observed variance) in sequence.
### Table 5.15: Multiple regression analysis for predicting occupational stress using different work values

#### Multiple Regression Part I

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>Multiple R</th>
<th>( R^2 )</th>
<th>Adjusted ( R^2 )</th>
<th>Standardized error</th>
<th>df</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational stress</td>
<td>0.45</td>
<td>0.20</td>
<td>0.19</td>
<td>13.71</td>
<td>11</td>
<td>13.80</td>
<td>&lt; 0.01</td>
</tr>
</tbody>
</table>

#### Multiple Regression Part II

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Predictor variables</th>
<th>B</th>
<th>Standard error</th>
<th>B</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good economic return</td>
<td>-2.04</td>
<td>0.73</td>
<td>-0.47</td>
<td>2.80</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>2</td>
<td>High status/ Prestige</td>
<td>-1.46</td>
<td>0.72</td>
<td>-0.33</td>
<td>2.04</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>3</td>
<td>Opportunities of human/ social service</td>
<td>-1.02</td>
<td>0.71</td>
<td>-0.22</td>
<td>1.43</td>
<td>N.S.</td>
</tr>
<tr>
<td>4</td>
<td>Friendly/ Cooperating colleagues</td>
<td>-1.67</td>
<td>0.72</td>
<td>-0.31</td>
<td>2.33</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>5</td>
<td>Security of service</td>
<td>-0.79</td>
<td>0.72</td>
<td>-0.15</td>
<td>1.10</td>
<td>N.S.</td>
</tr>
<tr>
<td>6</td>
<td>Fair/ sympathetic supervisions</td>
<td>-1.59</td>
<td>0.72</td>
<td>-0.28</td>
<td>2.19</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>7</td>
<td>Opportunities of further progress/ Advancement</td>
<td>-0.72</td>
<td>0.72</td>
<td>-0.13</td>
<td>0.99</td>
<td>N.S.</td>
</tr>
<tr>
<td>8</td>
<td>Opportunities of intellectual stimulation</td>
<td>-1.03</td>
<td>0.72</td>
<td>-0.20</td>
<td>1.43</td>
<td>N.S.</td>
</tr>
<tr>
<td>9</td>
<td>Work consistent with my life Goals/ Values</td>
<td>-0.95</td>
<td>0.72</td>
<td>-0.18</td>
<td>1.32</td>
<td>N.S.</td>
</tr>
<tr>
<td>10</td>
<td>Opportunities of exercising Power/ Authority</td>
<td>-3.00</td>
<td>0.73</td>
<td>-0.61</td>
<td>4.12</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>11</td>
<td>Freedom in my work</td>
<td>-0.75</td>
<td>0.70</td>
<td>-0.16</td>
<td>1.07</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

It is also observable from the table that the values of t-ratio is not significant for the next sequences of work values—i.e. teachers' opportunities of human/social service, opportunities of intellectual stimulation, work consistent with my life goals/values, freedom in my work, security of service and opportunities of further progress/advancement; and contribute 22% (with regression weight of 1.02), 20% (with regression weight of 1.03) and 18% (with regression weight of 0.95), 16% (with regression weight of 0.75), 15% (with regression weight of 0.79) and 13% (with regression weight of 0.72) respectively. Therefore, it is found that the predictor factors of work values influence the teachers' stress toward their occupation. Hence, the sixth hypothesis stating that "the predictor factors of work values are not the significant predictors of teachers stress toward their occupation" is rejected on the basis of the present result.

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5.7 Relationship between occupational stress and preferences of work values

To find out the relationship between occupational stress and differently preferred work values of teachers, the total sample was arranged according to the weightage given to each work values in the order of the most favorable – seeming work value to the least favorable – seeming work value by the teachers, with a rank order 1 to 11. This implies that the work value with the lowest rank mean will be the most preferred than the work value with the highest rank mean, which will be the least preferred by them, and the remaining nine work values would slide in between these two extremes. The results of the weightage given to each work values along with their rank means are given in table 5.16.

Table 5.16: Hierarchical order of preference given to different work values (N=608)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Work values preference</th>
<th>Mean</th>
<th>Order of preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High Status/ Prestige</td>
<td>5.14</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Opportunities of Human/ Social Service</td>
<td>5.47</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Good Economic Return</td>
<td>5.51</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Security of Service</td>
<td>5.66</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Freedom in my work</td>
<td>5.71</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Friendly/ Cooperating Colleagues</td>
<td>5.77</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Opportunities of Further Progress/ Advancement</td>
<td>5.97</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Work consistent with my life Goals/ Values</td>
<td>6.26</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Fair/ Sympathetic Supervisions</td>
<td>6.32</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>Opportunities of Intellectual Stimulation</td>
<td>6.52</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>Opportunities of exercising Power/ Authority</td>
<td>7.66</td>
<td>11</td>
</tr>
</tbody>
</table>

The result shows that the high status/ prestige is the most preferred work value (M = 5.14) among secondary school teachers, opportunities of human/ social service (M = 5.47) is the second most preferred work value, good economic return (M = 5.51) is third in order of preference, security of service (M = 5.66) comes at fourth place in order of preference, freedom in my work (M = 5.71) come at fifth place, friendly/ cooperating colleagues (M = 5.77) work value stands sixth in the sequence of preference and opportunities of further progress/ advancement (M = 5.97) work value is given seventh place in the order of preference.
Proceeding towards the less preferred work values, a steady increase in the mean of the work values is further seen with the work consistent with my life goals/values (M = 6.26), fair/sympathetic supervisions (M = 6.32) and opportunities of intellectual stimulation (M = 6.52) work values, which stands at eighth, ninth and tenth place respectively in the order of preference list of these work values. The result reveals that the opportunities of exercising power/authority work value has the highest rank mean (M = 7.66) and is therefore, the least preferred work value by the secondary school teachers.

Further, to support this result, Pearson Product Moment coefficient of correlations between each of the eleven work values and occupational stress were calculated. Table 5.17 presents the values of product moment coefficients of correlation between these eleven work values and occupational stress among secondary school teachers. A perusal of correlation coefficients in the table shows that three negative correlations, i.e. good economic return, high status/prestige and opportunities of exercising power/authority are significant at 0.01 level with values of correlation -0.18, -0.13 and -0.30 respectively. The result shows that occupational stress is negatively related to three work values, namely good economic return, high status/prestige and opportunities of exercising power/authority.

Table 5.17: Product moment coefficient of correlation between occupational stress and work values

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Work values</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good economic return</td>
<td>-0.18</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>2</td>
<td>High status/Prestige</td>
<td>-0.13</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>3</td>
<td>Opportunities of human/social service</td>
<td>0.08</td>
<td>N.S.</td>
</tr>
<tr>
<td>4</td>
<td>Friendly/Cooperating colleagues</td>
<td>-0.04</td>
<td>N.S.</td>
</tr>
<tr>
<td>5</td>
<td>Security of service</td>
<td>0.12</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>6</td>
<td>Fair/sympathetic supervisions</td>
<td>0.04</td>
<td>N.S.</td>
</tr>
<tr>
<td>7</td>
<td>Opportunities of further progress/Advancement</td>
<td>0.15</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>8</td>
<td>Opportunities of intellectual stimulation</td>
<td>0.01</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>9</td>
<td>Work consistent with my life Goals/Values</td>
<td>0.11</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>10</td>
<td>Opportunities of exercising Power/Authority</td>
<td>-0.30</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>11</td>
<td>Freedom in my work</td>
<td>0.11</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

It is also clear from the table that four positive correlations are significant at 0.01 level and one is significant at 0.05 level, which are for security of service (r = 0.12), opportunities of further progress/advancement (r = 0.15), work consistent with my life goals/values (r = 0.11), freedom in my work (r = 0.11) and opportunities of intellectual stimulation (r = 0.01) respectively. The results indicate that as occupational...
stress in teachers’ increases, the keenness to acquire security of service, opportunities of further progress/advancement, work consistent with my life goals/values, freedom in my work and opportunities of intellectual stimulation among teachers’ increases accordingly. An overview of the table also reveals that three correlations are not significant at 0.05 level, i.e. opportunities of human/social service, friendly/cooperating colleagues and fair/sympathetic supervisions. This leads to the interpretation that occupational stress is not related to opportunities of human/social service, friendly/cooperating colleagues and fair/sympathetic supervisions work values among secondary school teachers.

Furthermore, the preferences of work values among the three groups of occupational stress (less, moderate and more stress) are seen among the whole sample. It is observable from table 5.18 that the three most preferred work values among the less stress group of teachers’ comprise of security of service ($M = 5.27$), freedom in my work ($M = 5.29$) and opportunities of human/social service ($M = 5.34$) respectively. On the other hand, opportunities of exercising power/authority with the highest rank mean ($M = 8.61$) is identified as the least preferred work value by less stress group of teachers. This is further succeeded by two of the work values - opportunities of intellectual stimulation and good economic return that have an equal mean of 6.22, and come at ninth place simultaneously, in the order of preference. Additionally, the remaining five work values, namely opportunities of further progress/advancement ($M = 5.41$), high status/prestige ($M = 5.66$), friendly/cooperating colleagues ($M = 5.89$), work consistent with my life goals/values ($M = 5.93$) and fair/sympathetic supervisions ($M = 6.14$) lie between the two poles of preferences and, thereby, stand at fourth, fifth, sixth, seventh and eighth place, respectively in the preference list of less stress group of teachers’.

Heading towards the moderate stress group of secondary school teachers, it is seen from table 5.18 that this group preferred high status/prestige work value ($M = 4.63$) the most, followed by good economic return ($M = 4.88$) and friendly/cooperating colleagues ($M = 5.58$); while they adhered least preference to opportunities of intellectual stimulation, opportunities of exercising power/authority and fair/sympathetic supervisions work values with highest rank means of 6.85, 6.78 and 6.54, respectively. The five work values that left behind, namely - opportunities of human/social service ($M = 5.64$), security of service ($M = 5.98$), freedom in my
Table 5.18: Work value preferences of teachers having less, moderate and more stress—Hierarchical Order

<table>
<thead>
<tr>
<th>Less stress group (N=290)</th>
<th>Moderate stress group (N=249)</th>
<th>More stress group (N=69)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order of preference</td>
<td>Mean of ranks</td>
<td>Preference of work values</td>
</tr>
<tr>
<td>1</td>
<td>5.27</td>
<td>Security of Service</td>
</tr>
<tr>
<td>2</td>
<td>5.29</td>
<td>Freedom in my work</td>
</tr>
<tr>
<td>3</td>
<td>5.34</td>
<td>Opportunities of Human/ Social Service</td>
</tr>
<tr>
<td>4</td>
<td>5.41</td>
<td>Opportunities of Further Progress/ Advancement</td>
</tr>
<tr>
<td>5</td>
<td>5.66</td>
<td>High Status/ Prestige</td>
</tr>
<tr>
<td>6</td>
<td>5.89</td>
<td>Friendly/ Cooperating Colleagues</td>
</tr>
<tr>
<td>7</td>
<td>5.93</td>
<td>Work consistent with my life Goals/ Values</td>
</tr>
<tr>
<td>8</td>
<td>6.14</td>
<td>Fair/ Sympathetic Supervisions</td>
</tr>
<tr>
<td>9</td>
<td>6.22</td>
<td>Good Economic Return</td>
</tr>
<tr>
<td>9</td>
<td>6.22</td>
<td>Opportunities of Intellectual Stimulation</td>
</tr>
<tr>
<td>10</td>
<td>8.61</td>
<td>Opportunities of exercising Power/ Authority</td>
</tr>
</tbody>
</table>
Fig. 5.10: Mean work values rank scores on the basis of occupational stress groups
work \( (M = 6.12) \), work consistent with my life goals/ values \( (M = 6.47) \) and opportunities of further progress/ advancement \( (M = 6.51) \) slide in between these two preference extremes and accordingly perceived at fourth, fifth, sixth, seventh and eighth place respectively in the order of preference list.

Moreover, the mean rank scores among the more stress group of teachers draw our attention to the three most preferred work values in this group, i.e. good economic return, high status/ prestige, and opportunities of human/ social service which have been subsequently listed at first \( (M = 4.75) \), second \( (M = 4.78) \) and third \( (M = 5.43) \) place in the order of preference. Diverging from these most preferred work values, the more stress teachers' enumerated work consistent with my life goals/ values \( (M = 6.85) \), opportunities of exercising power/ authority \( (M = 6.81) \) and opportunities of intellectual stimulation \( (M = 6.59) \) as three of the least preferred work values. Most interestingly, where it can be noted from table 5.18 that the remaining work values slither between the two preference poles from most to least; the result also reveals that two of the eleven work values in the more stress group occupy a fourth place \( (M = 5.96) \) simultaneously, i.e. friendly/ cooperating colleagues and freedom in my work. The left over work values in the order of sequence are kept at fifth, sixth and seventh place, and can be listed as security of service \( (M = 6.17) \), fair/ sympathetic supervisions \( (M = 6.25) \), and opportunities of further progress/ advancement \( (M = 6.32) \), respectively.

5.8 Relationship between occupational stress and pupil control ideology

In order to determine if there is any relationship between the occupational stress scores of the teachers and their pupil control ideology scores, Pearson Product Moment Correlation is applied. A significant positive correlation is found \( (r=0.48) \) which indicates that as occupational stress increases, pupil control ideology increases accordingly. It may be stated that more the custodial ideology of teachers, the more stress is observed. To analyze the effect of pupil control ideology on occupational stress the whole sample is divided into three categories as humanistic – having pupil control ideology score ranging from 20-50 and this group constitutes teachers who are patient, congenial, easily approached by students, and strive to establish a basis of mutual respect and friendship in their relationships with pupils, the second category is
work (M = 6.12), work consistent with my life goals/ values (M = 6.47) and opportunities of further progress/ advancement (M = 6.51) slide in between these two preference extremes and accordingly perceived at fourth, fifth, sixth, seventh and eighth place respectively in the order of preference list.

Moreover, the mean rank scores among the more stress group of teachers draw our attention to the three most preferred work values in this group, i.e. good economic return, high status/ prestige, and opportunities of human/ social service which have been subsequently listed at first (M = 4.75), second (M = 4.78) and third (M = 5.43) place in the order of preference. Diverging from these most preferred work values, the more stress teachers’ enumerated work consistent with my life goals/ values (M = 6.85), opportunities of exercising power/ authority (M = 6.81) and opportunities of intellectual stimulation (M = 6.59) as three of the least preferred work values. Most interestingly, where it can be noted from table 5.18 that the remaining work values slither between the two preference poles from most to least; the result also reveals that two of the eleven work values in the more stress group occupy a fourth place (M = 5.96) simultaneously, i.e. friendly/ cooperating colleagues and freedom in my work. The left over work values in the order of sequence are kept at fifth, sixth and seventh place, and can be listed as security of service (M = 6.17), fair/ sympathetic supervisions (M = 6.25), and opportunities of further progress/ advancement (M = 6.32), respectively.

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named as moderate — having scores in the range 51-70 and constituting of teachers who have pupil control ideology not very high but of intermediate level sliding between authoritarian and democratic teachers. The last category i.e. custodial comprises of teachers having scores ranging from 71-100 and constituting of teachers who are impersonal and aloof in their relationships with students, strive to maintain a high degree of order among their pupils, and are stringent and unyielding in dealing with them.

Analysis of variance was employed to determine the significance of difference in occupational stress scores of the teachers of different groups of pupil control ideology. Table 5.19 shows that the total sum of squares between and within the means of the teachers is calculated. The F-ratio comes out to be 66.63 and found significant at 0.01 level for df = 2, 605. This implies that there is a significant overall difference in the means of these three groups. Hence, t-test is applied for further investigation.

The t-test is applied with an aim to see among which group of teachers the difference exists. As shown in table 5.20 teachers with humanistic pupil control ideology have significantly lowest occupational stress score (M = 34.00, SD = 11.14) than the other two groups. Similarly, those teachers with moderate pupil control ideology have significantly lower occupational stress scores (M = 51.71, SD = 13.57) than custodial pupil control ideology group. Further, teachers with custodial pupil control ideology have significantly highest occupational stress scores than the other two groups (M = 58.53, SD = 15.54). Graphical presentation is given in fig. 5.10. These results show that higher occupational stress scores consistently accompany the increase in pupil control ideology. Further, computation of the means for male and female sub-samples of each control ideology group (table 5.21) shows that male teachers have more occupational stress score than the female counterparts in the moderate and custodial pupil control ideology groups. But, application of t-test indicates that there is a statistically significant gender difference only in the moderate pupil control ideology group (t = 4.31, P <0.01, df = 415). Fig. 5.12 contains the graphical presentation.
Table 5.19: Analysis of variance in respect to occupational stress scores and pupil control ideology

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>25363.05</td>
<td>12681.53</td>
<td>66.63</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Within groups</td>
<td>605</td>
<td>115145.62</td>
<td>190.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>607</td>
<td>140508.68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.20: Comparison of mean occupational stress scores on the basis of three groups of pupil control ideology

<table>
<thead>
<tr>
<th>Pupil control ideology groups</th>
<th>N</th>
<th>%</th>
<th>Mean score</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Humanistic (20-50) (1)</td>
<td>62</td>
<td>10.20</td>
<td>34.00</td>
<td>11.14</td>
<td>x</td>
</tr>
<tr>
<td>Moderate (51-70) (2)</td>
<td>417</td>
<td>68.58</td>
<td>51.71</td>
<td>13.57</td>
<td>9.79</td>
</tr>
<tr>
<td>Custodial (71-100) (3)</td>
<td>129</td>
<td>21.22</td>
<td>58.53</td>
<td>15.54</td>
<td>11.12</td>
</tr>
</tbody>
</table>

**Significant at p<0.01 with df = 477, 189 and 544 respectively.

Fig. 5.11: Mean occupational stress scores on the basis of three groups of pupil control ideology
Table 5.21: Gender-wise comparison of mean occupational stress scores on the basis of three groups of pupil control ideology

<table>
<thead>
<tr>
<th>Pupil control ideology groups</th>
<th>Gender</th>
<th>N</th>
<th>%</th>
<th>Mean score</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanistic (20-50)</td>
<td>Male</td>
<td>30</td>
<td>4.93</td>
<td>32.00</td>
<td>9.14</td>
<td>60</td>
<td>1.38</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>32</td>
<td>5.26</td>
<td>35.88</td>
<td>12.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate (51-70)</td>
<td>Male</td>
<td>198</td>
<td>32.57</td>
<td>54.66</td>
<td>12.98</td>
<td>415</td>
<td>4.31</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>219</td>
<td>36.02</td>
<td>49.05</td>
<td>13.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Custodial (71-100)</td>
<td>Male</td>
<td>53</td>
<td>8.72</td>
<td>60.77</td>
<td>16.55</td>
<td>127</td>
<td>1.38</td>
<td>N.S.</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>76</td>
<td>12.5</td>
<td>56.96</td>
<td>14.70</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 5.12: Gender-wise mean occupational stress scores on the basis of three groups of pupil control ideology
The analyses do not confirm the prediction hypothesized in this study for the present sample. A relationship between occupational stress of the teachers and pupil control ideology has been demonstrated by the findings. Hence, the eighth hypothesis stating that, “there is no significant difference in occupational stress in relation to pupil control ideology of the teachers” is rejected at 0.01 level. There is a relationship between pupil control ideology of the teachers and their stress toward occupation.

5.9 Discussion

The present study among others is conducted in the area of teachers occupational stress, but its distinctive feature is that it sought to study the impact of certain teacher variables not included in earlier studies with teacher stress, especially work values and pupil control ideology. In the present discussion an attempt is made to reconcile the findings of the present study with the previous investigations. It is needless to say that India is a vast country with diverse religious, ethnic, cultural and linguistic communities. All these factors effect attitudes, behavior and values of different members of a community including the teachers’. Under such conditions no national norms of teachers’ stress can be developed, nor are they necessary. Only a general picture of teachers occupational stress behavior and its correlates is therefore sought to be drawn by investigating the findings of the present study, and other related investigations (where such investigation is possible). For the present study, data from a large contemporary sample of secondary school teachers’ was analyzed and multiple regression, F-test, t-test and correlation was applied to determine the affects of predictor variables on criterion variable.

General pattern of occupational stress of secondary school teachers

Occupational stress is a universal phenomenon that is being progressively used at the workplace. Its main feature is to challenge the psychological, familial and social dimensions of an individual; and is considered an illness of the advanced and industrialized societies. An examination of the results of the present study shows that the percentages of less stress, moderate and more stress teachers’ are 47.70, 40.95,
and 11.35, respectively. These percentages in respect to the male teachers’ are 39.50, 45.91, and 14.59, respectively; while with respect to female teachers’ the percentages of the three stress groups are 54.74, 36.70, and 8.56, respectively. Thus, it is evident from this analysis that majority of the teachers’ are less stressed with their job. However, the percentages of more stress teachers though only 11.35 cannot be considered as flattening. The result of the analysis also makes it clear that less stress is felt by female teachers’ more than the male teachers’.

The results obtained in the study are supported by other investigations. Khurshid, Butt, and Malik (2011) reported that public sector university teachers’ reported experiencing a moderate to high level occupational role stress, whereas the private sector university teachers reported mild to moderate role stress. In the study of Fontana and Abouserie (1993), it was found that 72.6% among the 95 teachers’ involved were experiencing moderate level of stress while 23.2% were experiencing serious stress levels; though no significant difference was identified between male and female teachers’. On the other hand, Kyriacou and Sutcliffe (1979a) found that male department heads and female classroom teachers’ reported higher stress levels than female heads of department and male teachers’ respectively. While, in Malaysia, Samad et al. (2010) reported that majority of the teachers’ experienced medium level of stress (71.7%). Ahghar (2008) reported that 40.2% of the teachers’ showed occupational stress at levels below the mean value, 26.6% at the mean level, and 13.42% at the level higher than the mean. Holeyannavar and Itagi (2010) noted that 34.3% and 35.2% of teachers expressed average and low occupational stress, respectively while 30.5% indicated high occupational stress. The studies conducted by Kalyva (2013), Anitha Devi (2007), Pandey and Srivastava (2000) also reported the low levels of stress among teachers.

The reason is that human beings have many biological, psychological and social needs. When these needs are not satisfied, they experience stress. Teaching profession is generally associated with limited working hours and clear cut duties, less role overload, reasonable pay, and longer periods of vacation due to which they can give enough time for recreation with family members and social activities. Thus, their nature of job remains unchanged; and as a result, they experience low level of stress. Contradictory results were given by Bharati and Reddy (2002) in India who observed
that 79.0% of teachers showed average to high levels and only 22.0% had low levels of job stress. But, in U. K., Borg and Riding (1991a) reported 36.6% of secondary school teachers' rated their job as very stressful.

**Combined and individual relationship of demographic factors with teachers' occupational stress**

The results presented in table 5.2 (Part I and II) show that all of the five predictor demographic variables i.e. gender, teaching experience, qualification, salary, and subjects taught, when taken together bring forth an adjusted R square of 0.10. The interpretation of this is that 10% of variance in the teachers' occupational stress can be explained by the combined influence of the above mentioned five predictor variables. Further, beta weights offer an indication of relative effects of each predictor variable on prediction of the occupational stress. It is apparent from the table that gender is the best predictor of occupational stress (12%) followed by qualification (11%), salary (7%), and teaching experience along with subjects taught have the least contribution (1% each) to teachers' occupational stress. Using multiple regressions, Raveeswaran et al. (2011) showed that there are significant differences in occupational stress of teachers based on age, sex, experience and parenthood. Additionally, they found age, sex, and parenthood to have significant impact on the level of occupational stress of teachers. On the contrary, Kalyva (2013) reported gender, age, and years of teaching experience were not associated with teacher stress.

**Relationship between occupational stress and demographic factors**

Out of the five demographic variables as mentioned above, this study has identified three demographic factors related to occupational stress of teachers in secondary schools. These variables were namely, gender, teaching experience and qualification. On the other hand, salary and subjects taught have no effect on occupational stress. When data was analyzed to see the significant difference in teachers' occupational stress between male and female teachers, it is found there occurs a significant difference between the mean occupational stress scores of two groups. Gender-wise analysis shows that male teachers are more stressed than female teachers. It is not readily apparent why males should find teaching more stressful. This may be because, with increasing age male teachers become less tolerant of, and
more stressed by factors like— pupil misbehavior and poor working conditions in their work environment (Borg & Riding, 1991, in press), with the result that their job is perceived more stressful.

More occupational stress among male teachers can also be attributed to the perceptions of female teachers to shoulder the responsibilities same as males in this competitive world, along with their aspiration level, social acceptability, challenges, job responsibilities and career development. Moreover, it is a widely accepted fact that discrimination of sex exists at the management level; thus, secondary schools are heading towards the work environments that are non-masculinized. Borg and Riding (1991) noted that male teachers’ reported greater stress than female teachers'. On the contrary, Payne and Furnham (1987) found that female teachers reported greater stress than their colleagues. McCormick and Solman (1992b) found that the position held either as a classroom or executive teacher and gender were significant predictors of stress in their regression analysis. The finding is further supported by Byrne (1998) and Bhagawan (1997) who emphasized that the causes leading to burnout/stress affect male teachers more than the female teachers who have higher motivation. Whatever the underlying explanation, the results reported here contradict those of other studies that reported higher stress in female primary and secondary staff (Abdul Majid, 1998; Antoniou et al., 2006; Antoniou, Ploumpi, & Ntalla, 2013; Ravichandran & Rajendran, 2007; Timms et al., 2006), and no difference between the gender in the three burnout syndrome (Zhao & Bi, 2003; Dali, 2004; Coulter & Abney, 2009).

The present study also provides valuable information regarding the four groups of teaching experience and occupational stress among the secondary school teachers. The analysis showed that the length of experience in teaching was also a factor in assessing the occupational stress among teachers. There occurs an inverted curvilinear relationship with the lowest stress found among novice teachers, i.e. 0-5 years and among those working as a teacher for more than 16 years, while those with an average range of experience, that is, 6-10 and 11-15 years appear to have most stress. This finding is in congruence to that of Mertler’s study (2002) who detected teachers with up to five years and eleven or more years’ experience reported higher job satisfaction than those with 6-10 years’ experience. In the same vein, Ganai and Ali (2013) provided an indirect support to the findings of the present study. They
found senior higher secondary teachers’ to have more job satisfaction than junior higher secondary teachers’.

Further, when t-test was applied to compare each mean with every other means of the four groups in this study, there were no significant differences witnessed in mean occupational stress scores of three groups (0-5 years and 11-15 years, 0-5 years and more than 16 years groups, and 11-15 and more than 16 years) of teaching experience. Researchers also found teaching experience was not significantly related to teacher stress (Harlow, 2008) or workload of teachers (Chughati & Perveen, 2013). This finding has been contradicted by Li, Yang and Shen (2007) who have indicated that teachers’ length of teaching has significant effects on their personal teaching efficacy, depersonalization and reduced personal accomplishment.

In contrast to the findings of the present study, it is largely believed that new recruits are not familiar with the culture of the school and it is the first month of school that is very overwhelming for new teachers. Less stress amongst teachers with 16 years onwards experience may be due to lesser working hours and more material to re-use. Huberman (1993) supports the findings of the present study that the older teachers might be more experienced and adaptable to the environment and more ready to cope with stress. The reason might be related to their professional role as a teacher that at older age, the role burden usually gets diluted because of their potentiality, increased capacity to analyze their role due to the job clarity; thus, they could perform their roles better.

The results of the present study pertaining to the influence of academic qualification gained by teachers on their occupational stress show that a large population of 66.12% teachers consisted of trained teachers, either trained graduate teachers (13.16%) or post graduate teachers (52.96%) as compared to 33.88% teachers who were not trained at all. Further analysis shows that PGT teachers have significantly less occupational stress than the teachers who were untrained and TGT’s. There is no significant difference in mean occupational stress scores of untrained and PGT groups of qualification among teachers. This is consistent with the findings of Zakiah (2003) who has also indicated no highest academic qualification differences in stress levels.
Notwithstanding Payne and Furnham's (1987) interpretation in their study that teachers who attained a lower level of qualification or were not trained enough would be more susceptible to malicious demands from others on the understanding that they are not confident enough to stand on their stance and belief, which further escalates their perception on their stressors. However, with regard to their trained or higher degree counterparts, most of them were already a bachelor's degree holder once they entered the profession. In this connection, less stress was experienced by them with respect to this aspect. A strong empirical evidence to this has been provided by Kyriacou and Sutcliffe (1978b) who also proved that teachers with higher academic qualification, such as bachelor or higher were less stress than their colleagues with lower academic qualification, such as diploma. On the contrary, because increased status means increased responsibilities; few researchers (Richard & Kvieshok, 1989; Ryhal & Singh, 1996) found that higher ranks in teaching profession experienced maximum stress.

Further, when the data was analyzed to see the significant difference in occupational stress and two groups of salary of secondary school teachers, it is seen that there is no significant difference between mean occupational stress scores of two groups. This result can be viewed as occurrence of better promotion prospects probably, job security or better pays of teachers where their qualifications are concerned. The results also advocated that male teachers in 15,000 INR onwards salary group have more occupational stress than their female colleagues, but a significant difference is not found in relation to salary in ‘upto 15,000 INR’ group.

It is quite acceptable that the existing pay scale of secondary teachers does not come closer to their desires and aspirations. This can lead to stress. Findings of Rizvi and Shanker (1987), Joseph and Varghesh (1988) put to light that salary variable function as either satisfier or dissatisfier. An indirect relation between stress and salary emerged from the study of Anitha Devi (2007) who found poor salary to be the main cause of job dissatisfaction. Katoch (2012) notified income per annum as an important factor impacting the level of job satisfaction. A more plausible explanation for occupational stress among male teachers has been put forth by Bloland and Selby.
(1980). These researchers reported married men, however, are more likely to leave teaching in search of higher salaries than are single males.

Furthermore, another variable which is not found to be an influencing factor for occupational stress among teachers, is the subjects taught by them. The results obtained did not support the idea that the languages, arts, social sciences and sciences teachers differ on the level of stress experienced by them. Likewise, an indirect evidence suggests that the science teachers are more satisfied with regard to their job than social science higher secondary teachers in Srinagar, India (Ganai & Ali, 2013). One possible explanation can be that the workload of languages, arts, social sciences, and sciences teachers has increased in recent years, so much so that there exists no significant difference between the four groups. Secondly, this may be because every subject has its own value for the teacher. Teachers, when enter the teaching profession, possess a deep knowledge of their relevant teaching subject and their prime concern is to make the students understand their subject and teach well so as to clear their concepts, irrespective of the subject taught by them. Thus, every teacher enjoys teaching their main subject and do not experience stress. Most interestingly, Thody and Bowden (2004) discovered deviated results that teacher stress might be attributed to unanticipated teaching subjects which are not the teacher's degree specialism.

**Combined and individual effect of job satisfaction and pupil control ideology on teachers' stress toward their occupation**

When two of the predictor factors (job satisfaction and pupil control ideology) were taken together they generated an adjusted R square of 0.69. The interpretation of this is that 69% of the variance in teachers' occupational stress can be explained by the combined influence of the above mentioned predictor variables. An effective prediction of the teachers' occupational stress by job satisfaction and pupil control ideology is not surprising because literature has indicated significant relationships between occupational stress and job satisfaction (Ma & MacMillan, 1999; Pelsma et al., 1989) and pupil control ideology (Albertson & Kagan, 1987). As reported by these researchers, teacher autonomy, that is, having a sense of control over their day-
to-day teaching, particularly in deciding which year group they teach, is found to enhance job satisfaction and reduce stress.

The standardized beta weights specified that the relative contributions of these variables in predicting stress towards teaching occupation are job satisfaction (74%) and pupil control ideology (18%) with the greatest and smallest contribution, respectively. This relation confirms the importance of job satisfaction on occupational stress of teachers as indicated by the need theory of Roe (1970) that explains that an occupation is a primary source of need satisfaction. Halpin, Halpin, and Harris (1982) have indicated a possible relationship between susceptibility to stress and pupil control orientation. The studies carried out by researchers (Lunenburg & Cadavid, 1992; Abaci & Kalkan, 1999) have further confirmed that teacher burnout was related to custodial student control ideology.

**Relationship between occupational stress and job satisfaction**

This study finds a negative correlation between teachers' occupational stress and job satisfaction ($r = -0.81$), which is an indicative of decreased job satisfaction with an increase in occupational stress of teachers. This is to be expected because job satisfaction is an indication of positive attitudes toward work, while occupational stress relates to negative aspects of work. De Nobile and McCormick (2005) also reported negative correlation between occupational stress and job satisfaction ($r = -0.50$). There is significant corresponding relationship among the three sub-groups of job satisfaction and mean occupational stress scores. This confirms that an increase in teacher's satisfaction will result in lowering of occupational stress while on the other hand, decrease in satisfaction among teachers will result into raising of occupational stress. Research findings by many researchers (Borg & Riding, 1991a; Litt & Turk, 1985; Otto, 1982) presented an inverse relationship between stress and job satisfaction.

Though, the gender-wise breakdown of three sub-groups of teachers accounts to no significant differences among the male and female teachers of all the three groups, yet more occupational stress among female teachers of less and more groups of job satisfaction is noticeable as compared to their male complements. The present study lends support to the high proportion of teachers who are satisfied with their job.
(Broiles, 1982; Galloway et al., 1985; Rudd & Wiseman, 1962). As the secondary school teachers' overall job satisfaction is found to be moderate, this is in line with the findings of similar studies, such as those of Yaseen (1990), Alarimi (1998), Alonazi (2001), Alroyali (2002), Alagabri (2003), and Tok (2013).

Secondary school teachers are bound by rules and regulations, so they have little flexibility. This can be the reason that occurrence of a minor population representing less satisfaction has also been noticed in this study. Molmar (1985) reported that job satisfaction is a product of the interaction of meaningful job motivation and working condition. This study is also in agreement with the findings of Quitugua (1976) who showed that male teachers were overall more satisfied than female teachers, but contradict the findings of some researchers' (Klecker & Lodman, 1999; Islam et al., 2012; Rudd & Wiseman, 1962) that female teachers experienced greater job satisfaction than male teachers. While, Ghazali (1979) reported insignificant relationship between sex and teachers' overall job satisfaction.

**Combined and individual effect of work values on teachers' stress toward their occupation**

When all the predictor variables of work values (good economic return, high status/ prestige, opportunities of human/ social service, friendly/ cooperating colleagues, security of service, fair/ sympathetic supervisions, opportunities of further progress/ advancement, opportunities of intellectual stimulation, work consistent with my life goals/ values, opportunities of exercising power/ authority and freedom in my work) taken together, they yielded an adjusted R square of 0.19. This can be taken as an elucidation that 19% of the variance in the teachers' occupational stress can be explained by the combined influence of the above listed eleven predictor variables of work values.

The standardized beta weights indicated that occupational stress is negatively related to all the eleven work values; and that the relative contributions of these work values in predicting stress towards teachers' occupation are opportunities of exercising power/ authority by the teachers' (61%) that seems to be the strongest factor which predicts their occupational stress, followed by good economic return (47%), high status/ prestige (33%), friendly/ cooperating colleagues (31%) and fair/ sympathetic supervisions (28%) in sequence. Furthermore, the next sequences of
work values gave the relative contributions as opportunities of human/social service (22%), opportunities of intellectual stimulation (20%), work consistent with my life goals/values (18%), freedom in my work (16%), security of service (15%) and to end, opportunities of further progress/advancement has the least contribution of 13%.

Previous study (De Nobile & McCormick, 2005) also found job stress and work itself to be negatively related to each other. Devis (1990) reported classroom situation as a cause of stress; this may be taken as an explanation for the teachers to exercise power/authority in their class. An important study along a similar line include the work of Hoffer (1982) who stated that burnout is related to lack of students interest, lack of equipment, large classes, behavior's and pupils attitude. Factors such as age of the taught, non-cooperative relationship of the colleagues, unsympathetic attitudes of principal, leadership behavior of principal and availability of less free time due to overloading of work might have contributed to more work stress among secondary school teachers. These findings get strength from the result of Cunningham (1983) who has testified limited promotional opportunities and lack of support as responsible for teachers' burnout.

Relationship between occupational stress and preferences of work values

Links between differently preferred work values and occupational stress of teachers were perceived in this study. High status/prestige is realized as the most preferred work value among secondary school teachers, sequentially preferred by opportunities of human/social service, good economic return, security of service, freedom in my work, friendly/cooperating colleagues, opportunities of further progress/advancement, work consistent with my life goals/values, fair/sympathetic supervisions, opportunities of intellectual stimulation; in succession with the opportunities of exercising power/authority work value that emerged as the least preferred one by the teachers.

Three negative correlations were seen between occupational stress and work values, namely good economic return ($r = -0.18$), high status/prestige ($r = -0.13$) and opportunities of exercising power/authority ($r = -0.30$) which leads to the interpretation that with increase in occupational stress, there results a decrease in these three work values. The secondary school teachers enjoy higher income; have
more opportunities for rendering social service, doing their work independently and exerting power, so they show higher appreciation for these work values. Accordingly, the highly stressful teachers' may find their stress adversely affecting their efforts to earn money, do more social work, exert more power and work independently.

Besides, five positive correlations between occupational stress and work values were also detected in this study, i.e. security of service (r= 0.12), opportunities of further progress/advancement (r= 0.15), work consistent with my life goals/values and freedom in my work (r= 0.11 each), opportunities of intellectual stimulation (r= 0.01). This means with a gain in security of service, opportunities of further progress/advancement, work consistent with life goals/values, freedom in work, and opportunities of intellectual stimulation, an addition in the occupational stress of teachers' is maintained. Walonick (1993) stated that career related concerns, such as job security and advancement are often responsible for stress. It implies that perception of more economic security and promotion opportunities might have mediated the effects of stress on teachers' work values.

The present study has shown that occupational stress is not related to three work values of secondary school teachers, namely opportunities of human/social service, friendly/cooperating colleagues and fair/sympathetic supervisions. These relationships seem to reflect lack of secondary school teachers' sensitivity to differences in these aspects of work. Their abilities might have contributed to reducing stress in these areas. Miller et al. (1991) suggested if teachers were to work with an environment where supports such as good relationship with colleagues, enough resources and facilities were provided; the stress level could be minimized. Likewise, support and recognition has been consistently associated with job satisfaction, while lack of it or low supervisory support has been identified to be related to job stress (Dinham & Scott, 1996; Luthans, 2002).

Perceptions' regarding which work values are more important than others is a factor capable of differentiating among less, moderate and more stress teachers. Less stress teachers consider security of service to be the most important work value for them, followed by freedom in my work and thereby, opportunities of human/social service. As against this, they assign the lowest ranks to opportunities of exercising
power/ authority, opportunities of intellectual stimulation and good economic return, in the descending order of preference, respectively. While, more stress teachers' consider good economic return to be the most important of all work values, sequentially followed by high status/ prestige and opportunities of human/ social service. Most interestingly, as compared to the less stress group, this group of teachers also kept opportunities of exercising power/ authority and opportunities of intellectual stimulation work values in the less preference work value category, in the order of decreasing rank mean, respectively; while work consistent with my life goals/ values was addressed as the least preferred work value by the most stress group of secondary school teachers.

Moderate stress teachers' give topmost importance to high status/ prestige successively followed by good economic return and thereafter, friendly/ cooperating colleagues. For this group, the least important work values consist of opportunities of intellectual stimulation, opportunities of exercising power/ authority, and fair/ sympathetic supervisions, respectively in the order of least preference. This evidence goes to show that the evaluation of different job factors is not done in a like manner by teachers' which renders a difference to their stress behaviors, or that the spring heads of satisfaction in job are not the same for the teachers who differ in their stress behavior.

The discrepancy among preferences of work values in less stress group can be due to the good institution and healthy environment where these teachers work. As the teachers indicated they are given due freedom, have security of their jobs, bossy attitude to lead the group, do not have to execute much extra work, they will feel less stress in their work. Social interaction is the key to success. In school environment, teachers have to interact with principal, colleagues, and students. Teachers will be free of stress if their relations are cordial with all and they are more satisfied with their relationships. Some researchers (King & Peart, 1992; Vance et al., 1989) have determined in their studies that teachers in schools with a clearly established disciplinary policy and appropriate support from the school management in disciplinary matters, experience less stress.
In addition, Robbins et al. (1994) indicated that the more important factors conducive to job satisfaction include mentally challenging work, equitable rewards, supportive working conditions and supportive colleagues. Singh (2007) is of the view that recognition and status area of job satisfaction is negatively related to stress among primary female teachers. Competing demands of careers, family plans, social life, civic life and recreation are also stressful to teachers, particularly junior teachers (Sorcinelli & Gregory, 1987). Kaur, Kumari, and Sharma (2013) opined that the most important factor that creates stress among the college teachers’ is salary and other benefits followed by working conditions, relations with colleagues, job security and workload. These findings are also substantiated with that of Hayward (1993) who asserts that discipline and classroom control issues cause interpersonal stress for teachers at all grade levels.

Now coming to the work values preferred by more stress group, the plausible reasons for their preferences to different work values can be attributed to high position, challenges, adventurous work to perform, and dealing with curricular and extra co-curricular activities in school environment, which automatically brings along with it the pressures and responsibilities on the shoulders of teachers. Okeke and Dlamini (2013) observed contractual problems and the nature of their work to be the main stressors for the high school teachers. On this note, Smit (2000) pointed that the highest levels of teacher stress were found to be those arising from lack of rewards and recognition. This may be the reason that this group of secondary school teachers confer prime position to good economic return and high status/ prestige, and experience more stress. Though they have opportunities to utilize their talents and have good chances for promotion, yet the eagerness/ flair to have more and more freedom in work, security of service, and fair/ sympathetic supervisions take a toll on their stress levels. Furthermore, secondary school teachers are expected to work with some authority while making slight changes in the curriculum when found necessary, but the rules governing teaching profession do not permit them to do so. This can cause stress in them too.

However, until fairly recently it was common to find many secondary school teachers who had reached their maximum wage scale years before and who had
practically no promotion opportunities or the benefit of extra allowances commensurate with their qualifications and experience. It would, therefore, seem that their growing frustration was accompanied by moderate stress levels, as viewed by the present study. Furthermore, the teachers in this group placed a liking for friendly/cooperating colleagues, opportunities of human/social service, and security of service. Research evidences by Fimian (1986a, 1986b) provide support to this preference relationship, who investigated that the receipt of peer and supervisory support would act as a moderator of teacher stress.

Besides, by the findings of this study it is discovered that teachers' in the moderate stress group placed least liking for fair/sympathetic supervisions, opportunities of exercising power/authority, followed by opportunities of intellectual stimulation in the last. This is not surprising as teachers have identified students as the primary and central factor that has impact on both their professional enthusiasm and discouragement (NCES, 1997). On the converse, Abdullah, Uli, and Parasuraman (2009) identified secondary school teachers to be generally dissatisfied with their pay and working conditions; while they expressed general satisfaction over other work dimensions such as supervision, promotions, co-workers and work itself. Besides, Usop et al. (2013) reported elementary teachers were contented with their job satisfaction facets such as school policies, supervision, pay, interpersonal relations, opportunities for promotion and growth, working conditions, work itself, achievement, recognition, and responsibility. Moderate levels of stress may improve effort to work, diligence and stimulate creativity (Schermherhorn, Hunt, & Osborn, 2000).

**Relationship between occupational stress and pupil control ideology**

Now coming to pupil control ideology, another important variable of the study, a definite relationship has been found to exist between this variable and the occupational stress behavior of the secondary school teachers'. It is observed that there is a positive correlation between occupational stress of teachers and their pupil control ideology ($r = 0.48$), which indicates that as occupational stress scores increase,
pupil control ideology scores increase accordingly. As an increase in the total score on the pupil control ideology scale represents a more custodial student control ideology among teachers', it may be stated that the more the custodial teachers' ideology occurs, the more stress is observed. The teachers' with less stress experiences are more humanistic in their approach to problems of pupil control and discipline than those who use moderate type of behavior/practices or have quite more stress experiences. A significant corresponding relationship occurs among the three sub-groups of pupil control ideology and occupational stress. This designates that a custodial pupil control ideology will lead in more occupational stress while a humanistic pupil control ideology will mark less occupational stress among teachers. Besides, gender basis analysis of three sub-groups of the teachers is that male teachers of moderate group of pupil control ideology have more occupational stress in comparison to their female colleagues. While male and female teachers of humanistic and custodial pupil control ideology groups show no significant differences. Thus, it was found that teachers' control-ideologies appeared to be the significant predictors of their job stress.

A study by Agoglia (1998) stated that significant direct relationships were found between pupil control ideology and occupational stress of school teachers. However, in the studies carried out by Lunenburg and Cadavid (1992) and Abaci and Kalkan (1999), it was noted that teachers' burnout was related to custodial student control ideology. Additional analysis revealed that custodial teachers were found more often to experience depersonalization feelings and to frequently experience lack of personal accomplishment. Willower, Eidell, & Hoy (1973) claimed that teachers' with custodial student control orientations tended to perceive students as irresponsible, non-trusting and undisciplined. In a similar study by Friedman (1995), it was found that custodial teachers tended to be more burn out. On the other hand, it was also reported that teachers with custodial student control ideologies felt more anxiety than humanistic teachers (Docking, 1985). Ozdemir (2007) found that as the classroom management efficacy of teachers' increases, their burnout levels decrease. The degree of stress which teachers experience is positively related to the degree
which he/she perceives as a lack of control over a potentially threatening situation (Hock & Roger, 1996). Literature supports the evidence of a humanistic orientation associated with increased job satisfaction (Heckert, 1976), while the other reports the opposite relationship (Krohn, 1979). Lunenburg & Mankowski (2000) found out a significant correlation between a high degree of school bureaucratization and custodialism in student control orientation and behavior. So custodialism in student control orientation is related to a high incidence of rules and regulations, hierarchical authority, centralization of control and impersonality.

Schools are organizations in which knowledge is constantly reproduced and both teachers and students play an active role in the learning-teaching process. It does not matter how much a teacher is effective at teaching a subject, the teacher cannot force students to learn, if the class management and control is lacked, he or she could not be successful (Celep, 2002; Demirel, 2009). In this light, the findings of this study are also consistent with those of many researchers (Hoy & Forsyth, 1986; Okafor, 2006; Donmez, 2007; Lunenburg & Ornstein, 2008; Yilmaz, 2009) who advocated that in classrooms where a positive climate exists, there will be a democratic environment and student-centred learning process prevails. Student discipline has been identified, at least in some studies, as the major cause of classroom stress for teachers (Feshbach & Campbell, 1978; Martray & Adams, 1981; Pettegrew & Wolf, 1982). If teachers have less confidence about how to manage a class they may feel ineffective. As a result, they may get stressed and emotionally worn out, and may develop a negative attitude toward students (Jerusalem & Mittag, 1995). It may be due to this reason that teachers revert from humanistic pupil control ideology to a custodial pupil control ideology, as shown by the present study.

A rise in the mean occupational stress scores of humanistic to custodial teachers may be as the secondary school teachers have to deal with students in class who talk constantly, have to tell students the same things over and over, plan and organize learning activities for wide ability ranges, feel that students do not adequately respond to teaching, and feel that adequate control over students is not attained. It appears both logical and consistent that the custodial teacher should
experience higher stress when dealing with facets of group instruction. On the converse, Emmer and Hickman (1991) found that teachers who perceive themselves as competent adopt more humanistic orientations in classroom management. However, Erdogan et al. (2010) opined that crowded classrooms make teachers more likely to apply custodial orientations and their management less effective in such classrooms.

5.10 Conclusion

It is conclusive to say that the findings of the present study and results of the reported studies on the problem investigated have mostly been confirmed. Similar to previous researches, it can be concluded that the phenomenon of teacher stress is prevalent in our secondary school teachers', however the results of the present study show that the majority of secondary school teachers' experience less stress toward their occupation. Female teachers are far ahead in facing less occupational stress as compared to their male complements. The study further detects that 10% of the variance in occupational stress of teachers’ can be explained by the combined influence of the predictor demographic variables. It is apparent from the results that teacher stress is actually a multiple-factor construct, and these factors are significantly related with each other.

The results further indicate a relationship between teachers’ occupational stress and demographic factors. It is clear from the data analysis that occupational stress in males is significantly higher than their female counterparts. This study also elucidates the connection between years of teaching experience and occupational stress. As the gain in teaching experience increase up to a certain period, say up to 10 years, the stress among teachers increases, while 11 years onwards a gradual decrease in the occupational stress among secondary school teachers’ is noticed. Qualification of the teachers’ also holds an impact on their occupational stress. This study shows that with an increase in lower educational levels, say among untrained and trained graduate teachers, there happens to occur an increase in stress experiences; while the
attainment of highest educational level leads to a decrease in the occupational stress among teachers'.

In our educational settings, one significant factor that may contribute to the phenomenon of teacher stress is the salary of teachers. However, the results pertaining to the present study explores no significant difference between teachers’ occupational stress and their salary. Gender-wise breakdown show that males have greater occupational stress in both the salary groups, but no significant difference prevails in ‘upto 15,000 INR’ group. Additionally, as the teachers’ specialize in their teaching subjects, have mastery over the text contents and possess deep knowledge of their relevant teaching subjects; they do not encounter stress due to it. Therefore, this study does not show any relationship between occupational stress and different subjects taught.

The results also prove that 69% of the variance in the teachers’ occupational stress can be explained by the combined influence of the predictor variables – job satisfaction and pupil control ideology. Moreover, beta weights indicated that job satisfaction lends the greatest support, i.e. 74% in predicting stress toward occupation of teachers; while pupil control ideology contributes only 18% to its prediction. The results also concord that occupational stress is negatively related to job satisfaction and positively related to pupil control ideology. Next, taking job satisfaction as the individual variable and examining its relationship with occupational stress, it is revealed that it is one of the most influencing factors to teachers’ stress. The results display that higher occupational stress scores consistently accompany reduction in job satisfaction of teachers’, and a significant negative relationship is proved between occupational stress and job satisfaction scores (r = -0.81). Though, female teachers have more occupational stress than the male colleagues in less satisfied and more satisfied groups, yet no significant differences exist in all the three job satisfaction groups.

Now, heading towards another important variable of this study, i.e. work values, 19% of the variance in the teachers’ occupational stress is explained by the
combined influence of the eleven predictor work values. Remarkably, of all the variables of work values, opportunities of exercising power/authority emerged as the strongest factor (61%) in predicting occupational stress of the secondary school teachers. The analysis of the results has also shown occupational stress to be negatively related to all the eleven work values. Coming to the preferences given to these work values by the teachers', results indicate that high status/prestige, opportunities of human/social service and good economic return is preferred the most while the opportunities of exercising power/authority is preferred the least by the secondary school teachers' followed by opportunities of intellectual stimulation and fair/sympathetic supervisions.

Supporting the preferences for these work values by the teachers' results further showed that there is a negative relationship between occupational stress and three work values—good economic return, high status/prestige and opportunities of exercising power/authority. Besides, significant positive correlations were found between occupational stress and security of service, opportunities of further progress/advancement, work consistent with my life goals/values, freedom in my work and opportunities of intellectual stimulation. Furthermore, the analysis of the results for the preferences of work values among less, moderate and more occupational stress groups show that less stress group of teachers' prefer security of service, freedom in work and opportunities of human/social service the most in the order of succession, while opportunities of exercising power/authority is the least preferred work value by the less stress group of teachers, that is sequentially followed by opportunities of intellectual stimulation and good economic return.

The more stress group of teachers' placed almost an equal liking for good economic return and high status/prestige work values, that is succeeded by opportunities of human/social service; while they treated work consistent with my life goals/values, opportunities of exercising power/authority and opportunities of intellectual stimulation as the least liked/preferred work value by them. On the other hand, among the moderate stress group of teachers', high status/prestige, good economic return and friendly/cooperating colleagues work values are the most
preferred against opportunities of intellectual stimulation which is given the least preference of all the eleven work values by this group.

Moreover, this result shows that increase in pupil control ideology consistently accompanies with higher occupational stress, and a significant positive correlation is found between occupational stress and pupil control ideology of secondary school teachers' \((r=0.48)\). Also, male teachers have more occupational stress than the female counterparts in the moderate and custodial pupil control ideology groups. But, male and female teachers' of humanistic and custodial groups show no significant difference in occupational stress of secondary school teachers'.
Chapter-6
Summary, Findings, Areas for Further Research and Limitations
Chapter 6
Summary, Findings, Areas for Further Research and Limitations

6.1 Introduction

Teachers' today are the central force of the school. They are the catalysts that foster changes in education. They are significant in the lives of the students they teach because they transmit the values of the society to them. Thus, they are overloaded with the increased responsibilities, accountabilities to broader perspectives, and greater opportunities for action in the educational field or the school organization. Teachers are no longer looked at as the mere transferors of knowledge, but as individuals who need to communicate and engage with students more than before and to care for their inner worlds (Arnold, 1999). A lot is expected from them – to empathize with learners, to motivate and encourage them, to participate in classroom activities, and generally speaking, to help facilitate learning. However, in addition to all these roles, they also need to engage in many other tasks such as paperwork, evaluating students, preparing for the class, remaining up-to-date with their teaching area and preparing their teaching materials. At the same time, they might have positive or negative encounters with parents, colleagues, administrative authorities and students, all of which can affect them psychologically.

Work should not compromise on health and family life; rather offer happiness, peace of mind, certainty, variety and flexibility. On the converse, studies have continuously proved that teaching is one of the most stressful jobs in comparison to other occupations (Adams, 2001). Stress ought to have a negative effect on teachers’ well-being (physically, emotionally, behaviorally or mentally), and thereby affects not only teachers, but also the school (i.e., loss of teaching time), and more importantly, the students (i.e., students’ perceived relation with teacher) (Wilson, 2002). It is greatly agreed that occupational stress, thus, is unavoidable which adversely affects the members of every institution, and in real life, the factors creating occupational stress among teachers’ will probably continue to increase. In order to perform best and achieve educational goals better, it becomes essential for them to not only be aware of the impact of their own behavior but must relate this impact to the goals of
the school organization. Ironically, their concerns and needs have not always been addressed in the same way. The impetus for the present study emerged from the recognition of the increasingly complex demands placed on teachers and staff members and the importance of learning strategies to help manage the stress that inevitably results from these demands. The identification of stress in teachers' may help to improve the mental health of teachers' and as a consequence, their job performance, values at work and their pupil control ideology.

It is well evidenced and documented that occupational stress among teachers' if not adequately and properly checked and diagnosed, could result in physical ailments, psychological and social problems such as depression and anxiety, and hostility toward colleagues, students and family members (Arikewuyo, 2004). Therefore, it becomes essential for the administrators to identify the areas where conflicts of stress exist and determine appropriate actions to remedy it. Thus, in order to travel around the various factors affecting teachers' classroom behavior, their work efficiency and their role in teaching-learning process, the present study is an effort to investigate the relationship among secondary school teachers' occupational stress, demographic factors, job satisfaction, work values and pupil control ideology.

6.2 Statement of the Problem

"An investigation into the relationship among Teachers’ Occupational Stress, Job Satisfaction, Work Values and Pupil Control Ideology".

6.3 Objectives of the study

The investigator has started the work with the following objectives:

1. To develop two standard tools of research, namely Teachers Occupational Stress Scale and Teachers Job Satisfaction Scale, which will prove as valuable additions to the psychometric units of Indian Universities and abroad also.

2. To study the general pattern of occupational stress of secondary school teachers.

3. To study the combined and individual effect of demographic factors on teachers’ stress toward their occupation.

4. To study the relationship between occupational stress of secondary school teachers and their demographic factors.
5. To study the combined and individual effect of job satisfaction and pupil control ideology on teachers' stress toward their occupation.


7. To study the combined and individual effect of work values on teachers' stress toward their occupation.

8. To explore the relationship between occupational stress of secondary school teachers and their preferences of work values.


10. To point out the main educational implications of this study.

The main purpose of this study is broadly stated to investigate the relationship among secondary school teacher’s occupational stress, demographic factors, job satisfaction, work values and pupil control ideology. In this study demographic factors and work values have been taken in the sense as:

➢ Demographic factors include: Gender, teaching experience, qualification, salary and subjects taught by teachers.

➢ Work values include: Good economic return, high status/prestige, opportunities of human/social service, friendly/cooperating colleagues, security of service, fair/sympathetic supervisions, opportunities of further progress/advancement, opportunities of intellectual stimulation, work consistent with my (teacher's) life goals/values, opportunities of exercising power/authority, freedom in work.

6.4 Questions posed for the study

In this study of teachers occupational stress in relation to their demographic factors, job satisfaction, work values and pupil control ideology, certain pertinent questions arise which may be stated as under:

1. What is the general pattern of secondary school teachers’ stress toward their occupation?

2. Do predictor demographic factors explain the differences in mean occupational stress score of teachers?

3. Do demographic factors explain the differences in mean occupational stress score of teachers?
4. Do predictor factors (job satisfaction and pupil control ideology) explain the differences in mean occupational stress score of teachers?

5. Does job satisfaction explain the differences in mean occupational stress score of teachers?

6. Do predictor factors of work values explain the differences in mean occupational stress score of teachers?

7. Do work values explain the differences in mean occupational stress score of teachers?

8. Does pupil control ideology explain the differences in mean occupational stress score of teachers?

6.5 Hypotheses of the study

In the light of the above-mentioned objectives, the study was conducted after formulating the following research hypotheses:

1. The secondary school teachers, in general, experience more stress toward their occupation.

2. The predictor demographic factors are not the significant predictors of teachers' stress toward their occupation.

3. There is no significant difference in occupational stress in relation to demographic factors of the teachers'.

4. The predictor factors (job satisfaction and pupil control ideology) are not the significant predictors of teachers' stress toward their occupation.

5. There is no significant difference in occupational stress in relation to job satisfaction of the teachers'.

6. The predictor factors of work values are not the significant predictors of teachers' stress toward their occupation.

7. There is no significant difference in occupational stress in relation to the perception of teachers' work values.

8. There is no significant difference in occupational stress in relation to pupil control ideology of the teachers'.
6.6 Methodology and design of the study

Before conducting any research study, it becomes essential to make a systematic plan and to take decisions, which are crucial for the successful achievement of the objectives of the study. The method adopted for this study was descriptive and statistical in nature. The sample used for the study of secondary school teachers’ occupational stress forms the main sample of the study. In all 608 teachers’ were involved in the study of investigating the relationship between teachers’ occupational stress with their demographic factors, job satisfaction, work values and pupil control ideology. The teachers’ selected for the study were secondary school teachers’ teaching languages, arts, sciences and social sciences.

6.6.1 Sample of the study

The sample was selected keeping in view the needs and objectives of the study. It should be mentioned that these teachers’ have been chosen from 41 schools of Eastern and Western U.P. of India. These schools constitute different categories of management, some of them are privately managed, and some are managed fully or partially by the government. The types of management are categorized as Government, Government Aided, Muslim Managed, Non-Muslim Managed, and Aligarh Muslim University Managed Schools. Out of the 41 schools selected in the study, ten are single-sex male schools constituting 153 teachers, seven are single-sex female schools having 128 teachers, and twenty four are co-educational schools having 327 teachers in total. The number of the female teachers’ is more than that of male teachers, their numbers being 327 and 281, respectively.

6.7 Data collected for the study

The following baseline data were collected for carrying out the present investigation:

- Data used for the development of Teachers Occupational Stress Scale.
- Data used for the development of Teachers Job Satisfaction Scale.
- Scores on the teachers stress toward their occupation.
- Scores of the teachers demographic factors.
Scores of the teachers job satisfaction.
➢ Rank scores of the teachers on their preferences of work values.
➢ Scores of the teachers pupil control ideology.

6.8 Tools used for the study

The investigator used following tools for the collection of data:
➢ Teachers Occupational Stress Scale (developed by the investigator).
➢ Teachers Job Satisfaction Scale (developed by the investigator).
➢ Work Values Scale (11 work values were selected from the six lists of different work values suggested by the eminent vocational psychologists).
➢ Pupil Control Ideology Scale (developed by Khaltoon & Munir, 2009).
➢ Personal information sheet (prepared by the investigator).

6.9 Statistical techniques employed

The investigator proceeded with the analysis of data by using relevant statistical techniques, which were selected only after the investigator found them to be the most appropriate and compatible for the analysis of data. They are specified as follows:
➢ Determination of the reliability and validity of the Teachers Occupational Stress Scale and Teachers Job Satisfaction Scale.
➢ Computation of mean and standard deviation.
➢ Use of linear measure of correlation (Pearson’s Product Moment Coefficient Correlation).
➢ Use of Multiple Regression for seeing the combined and individual effect of variables on the dependent variable.
➢ Use of F-test for measuring the significance of difference among more than two means.
➢ Use of t-test for measuring the significance of difference between two means.
6.10 Findings

After statistical analysis, the following conclusions were drawn in accordance with the hypotheses and results of the study:

1. General pattern of occupational stress of secondary school teachers

   i. The analysis of the data indicated that majority of secondary school teachers' (47.70%) have less occupational stress.

   ii. Results have also proved that greater percentage of female teachers' (54.74%) face less stress toward their occupation than their male colleagues (39.50%).

2. Combined and individual relationship of demographic factors with teachers' occupational stress

   i. The results of the study showed that 10% of the variance in teachers' stress toward their occupation can be explained by the combined effect of the predictor demographic variables, i.e. gender, teaching experience, qualification, salary and subjects taught.

   ii. Gender is indicated as the best predictor of occupational stress in this study, and contributed 12% to teachers' occupational stress.

3. Relationship between occupational stress and demographic factors

   i. The analysis of the results reveals that males' occupational stress is significantly higher than the female complements. Females, thus, were observed to come across less stressful experiences in the secondary schools.

   ii. This study shows an inverted curvilinear relationship with the lowest stress found among novice teachers, i.e. 0-5 years and among those working as a teacher for more than 16 years, while those with an average range of experience, that is, 6-10 and 11-15 years appear to have most stress. Further, no significant differences are seen in mean occupational stress scores of three groups (0-5 years and 11-15 years, 0-5 years and more than
16 years groups, and 11-15 and more than 16 years) of teaching experience.

iii. It has been found that academic qualification of teachers' is related to their occupational stress. In the present sample, 33.88% of the teachers were not trained at all. Results further show that, progressive advancement in lower educational levels leads to a rise in occupational stress among teachers, while with the attainment of highest educational level, the occupational stress among teachers' decrease.

iv. No relationship has been demonstrated between salary groups and occupational stress of teachers'. Gender-wise breakdown shows that males have more occupational stress than their female colleagues, but a statistically significant difference is observed only in teachers' falling in 15,000 INR onwards salary group.

v. Furthermore, another variable which is not found to be an influencing factor for occupational stress among teachers' is the subjects taught by them. The results obtained did not support the idea that the languages, arts, social sciences and sciences teachers differ on the level of stress experienced by them.

4. Combined and individual effect of job satisfaction and pupil control ideology on teachers' stress toward their occupation

i. The analysis of the results put to light that 69% of the variance in teachers' occupational stress is explained by the combined effect of predictor variables, i.e. job satisfaction and pupil control ideology.

ii. It has been found that satisfaction in teachers' with their job results to be the strongest factor (74%) in comparison to pupil control ideology (18%) which predicts their occupational stress.

5. Relationship between occupational stress and job satisfaction

The major findings in regard to the relationship between occupational stress and job satisfaction towards teaching are given below:
i. A significant and negative correlation is found between the teachers’ occupational stress and job satisfaction ($r = -0.81$).

ii. Less satisfied teachers are significantly different from the more satisfied group in regard to their occupational stress. The former group of teachers’ is more stressed with their teaching occupation than the more satisfied group of teachers’.

iii. Less satisfied teachers’ are found to be significantly different from the moderate satisfied group in relation to their occupational stress. The former group of teachers is found to be more occupationally stressed than their complements.

iv. Moderate satisfied group is found to be significantly different than the more satisfied group in regard to their occupational stress levels. The former group is found to be more stressed with their occupation than their counterparts.

v. No significant differences are found in the male and female teachers of less, moderate and more job satisfaction groups regarding their occupational stress. However, females in less satisfied and more satisfied groups have more occupational stress than their male colleagues.

6. Combined and individual effect of work values on teachers’ stress toward their occupation

i. The analysis of the results displays that 19% of the variance in teachers’ occupational stress is explained by the combined effect of eleven predictor variables of work values.

ii. The results in this study further show that opportunities of exercising power/authority by the teachers’ emerge as the strongest factor (61%) among all the work values which predict their occupational stress.

7. Relationship between occupational stress and preferences of work values

This study also explores the links between differently preferred work values and occupational stress of secondary school teachers’. The major findings are as follows:
Summary, Findings, Areas for Further Res.

i. The results indicate that secondary school teachers' recognize high status/ prestige as the most preferred work value, sequentially preferred by nine different work values; while opportunities of exercising power/ authority work value fallouts as the least preferred one by them.

ii. Though negative yet significant correlations are observed between teachers' occupational stress and three of the work values, namely, good economic return ($r = -0.18$), high status/ prestige ($r = -0.13$) and opportunities of exercising power/ authority ($r = -0.30$).

iii. Five positive significant correlations between occupational stress and work values are also spotted in this study, i.e. security of service ($r = 0.12$), opportunities of further progress/ advancement ($r = 0.15$), work consistent with my life goals/ values ($r = 0.11$) and freedom in my work ($r = 0.11$), opportunities of intellectual stimulation ($r = 0.01$).

iv. Occupational stress is not related to three work values of secondary school teachers, namely opportunities of human/ social service, friendly/ cooperating colleagues and fair/ sympathetic supervisions.

This study also ventures further to find the preferences of work values among the less, moderate and more occupational stress groups of teachers. With regard to the relative importance of work values as perceived by different occupational stress groups of teachers, the following findings were arrived at:

i. Less stressed teachers consider security of service to be the most important work value, followed by freedom in my work and then by opportunities of human/ social service. As against this, this group assigned the lowest ranks to opportunities of exercising power/ authority, opportunities of intellectual stimulation and good economic return, with respect to the descending order of preference.

ii. More stressed teachers consider good economic return work value to be the most important, followed by high status/ prestige, and then by opportunities of human/ social service. As against this, the least preferred work values by this group consist of work consistent with my life goals/ values, opportunities of exercising power/ authority and opportunities of intellectual stimulation, with their respective ranks of 10, 9 and 8.
iii. Moderate stressed teachers give top most importance to high status/prestige, followed by good economic return, and thereafter, friendly/cooperating colleagues. The least important work values for this group constitute opportunities of intellectual stimulation, opportunities of exercising power/authority and fair/sympathetic supervisions, with the ranks of 11, 10, and 9 respectively.

The findings led to the conclusion that less stress group of teachers do not see eye to eye with more and moderate stress groups of teachers in regard to their perception of the relative importance of various work values in teaching.

8. Relationship between occupational stress and pupil control ideology

Major findings relating to the relationship between various occupational stress groups of teachers' and pupil control ideology are reported below:

i. A significant and positive correlation is found between occupational stress behavior of teachers' and pupil control ideology ($r = 0.48$).

ii. Humanistic teachers' are significantly different from the custodial group of teachers in regard to their occupational stress. The former group of teachers' is more humanistic in their approach to problems of discipline than the other group, and therefore, experiences less stress than the latter.

iii. Humanistic and moderate groups of teachers' differ between themselves in regard to their occupational stress, the former being more humanistic and less stressful than the latter group.

iv. There exists significant difference between moderate and custodial groups of teachers' as far as their occupational stress is concerned, the former being more adaptable to humanitarian approach and less stressed than the latter.

v. There occurs significant difference between male and female teachers of moderate pupil control ideology group in relation to their occupational stress. Interestingly, male teachers' in this group are found to be more stressed than their female counterparts.
6.11 Educational implications

From the research findings in the present study, several implications for the school administrators, school authorities, management committees, policy makers, educators, psychologists, student-teachers and future researchers may be drawn with regard to occupational stress of teachers’ in secondary schools of India. The crux of the current problem may lie on the assumption that teachers view their stress problem at personal level, and that schools seldom at least try to render help on such personal basis.

The findings of the study were important from the point of view of excellence of teachers, their effectiveness and efficiency in job situation. Stress affects the teaching efficiency of the individual. So it is necessary to provide proper environment and support to each to maintain individual stress. The study has shown that there are variations in the experience of stress related to demographic factors, job satisfaction, work values, and pupil control ideology by the male and female secondary school teachers. This points to the need for the effective management of these determinants of stress, either by making use of different management strategies at regular intervals, or by providing effective guidance and counseling.

Attempts to spread reform, even among a few hundred teachers, may be too ambitious. For the significant changes to take place, it is instructed that they may have to be implemented at the school or in some cases at the department level. It is therefore recommended that principals and the school management committee should investigate the causes for teachers’ occupational stress and if possible, to provide ways, like workshops, seminars, and periodical stress management programmes for reducing the levels of stress among the teachers, which in turn will improve their functional skills and lead to effective teaching/learning in the classroom. Further, some major points should be taken care by the institution, that is, supervision, support and relationship with the teachers’ need to be corrected and enhanced most strongly. Besides, some other areas like, frustration, ignorance and recognition need to be taken care so as to reduce the stress and dissatisfaction of teachers’.

Though the results of this study on the less occupational stress among secondary school teachers seem to deviate from what is found in popular literature on the topic, the study has brought into focus the need to re-examine the widespread
belief that teaching is an extremely stressful occupation. The findings of the study also revealed that teachers' with less occupational stress are more satisfied with their profession than their counterparts. Thus, with respect to the efficiency of teachers' and their role in productivity of education the study indicates the need to facilitate professional development and healthy socio-emotional development of teachers. This study highlights the importance of day-to-day interaction among the school partners — teachers, pupils, parents — in shaping teachers' own experiences. Promoting a positive school climate should therefore be considered a fundamental part of school development planning.

The present study shows a strong relationship between teachers' occupational stress and their preferences for work values. Thus, administrators and policy makers must comprehend the different needs and requirements of their teachers' and staff members, and must provide greater consideration of all teachers' needs and work values through more flexible management structures, professional development support, supportive school culture, recognition, stable contracts, rewards and collaborative decision-making. This study suggests that educational administrators of the Education Department should evaluate its educational policies and controls over schools so as to narrow the gap between various types of schools regarding aspects of administration, financial support as well as workload. The Advisory Inspectorate inspectors must provide teachers with useful and constructive advice through personal contact during school inspections, or through seminars and conferences, so that they could become better equipped and more confident in themselves.

This study also confirms an association between teachers' occupational stress and their pupil control ideology, with higher occupationally stressed teachers showing a more custodial orientation in comparison to teachers with less stressed teachers'. This implies that teachers' should also be conscious of the negative effects of stress. More schools with humanistic orientations need to be established than the custodial. Also, the teacher training institutions should introduce relevant refresher courses and in-service programmes for student-teachers as well as front-line teachers to be aware and deal with the notion of stress; as well as lessen the tendency of teachers' toward adopting custodial control ideology more. On this note, the Education Department could play a significant part in reducing teachers' stress. To reduce the teaching load and to ensure that the teacher has sufficient time in school for administrative duties, it
is recommended that the Education Department should decrease the teaching load of the teachers to not exceeding one half but not less than one third of that for an ordinary teacher. To reduce the stress on administrative work, the Education Department should provide more administrative support, fund and resources to schools, such as computerization or additional clerical staff to help teachers’ in clerical work.

The present study also has implications for individuals working in either personnel for school districts or admissions for administrator certification programmes. Those applying for administrator positions and seeking entry into administrator programmes in colleges of education are likely to reflect a wide spectrum of attitudes, beliefs, values and ideologies. If personnel or admission officers have candidates with specific traits in mind, particularly in these areas of stress, they will need to devise alternate means of discovery than to trust in some type of natural selection process. Thus, this study is useful to guide employee readers to achieve their goals in order to satisfy their career by creating awareness about these causal factors of stress and adopt coping strategies for minimization of stress in their life; as stress can not be vanished from life. So we may conclude that the implications of research are many and varied.

6.12 Areas for further research

This study has opened the doors to new researches in the critical field of occupational stress among teachers. It has also increased the awareness of those conducting educational research to the needs of those employed in this setting (the teachers’) and to those whom they serve (the students). During its progress, certain problems closely related to the area of this work came up before the investigator. These problems if investigated along the present work would help in clarifying the conceptual misgivings and confusions. This study raised some important questions, and provided way through few research problems related to the present area that may be taken by the researchers in future. Thus, the study offers the following recommendations for conducting further research and study:

> Emerging theoretical and methodological issues in the study of occupational stress of teachers'.
Influence of classroom behaviors, perceptions and attitudes on teachers’ occupational stress.

Relationship between personality types and teachers’ occupational stress.

Effect of marital status on teachers’ occupational stress.

Training of teachers’ in the management of emotionally and behaviorally challenged learners and its relation to teachers’ occupational stress.

Role of open and closed organizational climate on teachers’ occupational stress.

Teachers’ efficacy and its relationship to their occupational stress.

Mutual teacher-principal relationships, personal characteristics and its effect on occupational stress.

Pupil disruptive behavior and its relation to teachers’ occupational stress.

Class size and its correlation with teachers’ occupational stress.

Type of family, family size and number of children as correlates to teachers’ occupational stress.

Teachers’ occupational stress as a function of work commitment, work adjustment and religiosity.

Influence of coronary diseases on health and occupational stress of teachers’.

Relationship between principal leadership styles and teachers’ occupational stress.

Locus of control and its correlation with teachers’ occupational stress.
6.13 Limitations of the study

Limitations of the study should not detract from the value of the study. They are as enumerated below:

1. The study was confined to secondary schools from eastern and western regions of Uttar Pradesh state of India. The findings could have been more convincing if a larger sample size had been taken from secondary schools covering more number of districts of the state.

2. The results of the present study had reflected the secondary school teachers' occupational stress in various districts of Uttar Pradesh at a particular time. But these findings may be quite different at some other time or in other socio-cultural settings.

3. This study was focused on secondary school teachers only. Therefore, the results may not be generalizable to teachers, administrators and student-teachers of other levels—primary, elementary, higher secondary. The extent to which the findings may be considered applicable to other situations will depend upon the similarity between the teachers under study and the group in question.

4. The present study was limited to serving teachers of Government, Government-aided, Muslim managed, Non-Muslim managed, and Aligarh Muslim University managed secondary schools. It did not study the occupational stress of teachers who had left the secondary sector for various reasons, such as prolonged occupational stress, burnout, change of jobs, promotion and emigration.

5. Only five of the demographic factors were studied as the latent variables in this study, so the findings may not be applicable to rest of the demographic variables. Also, the present study was mainly confined to three variables, i.e. job satisfaction, work values and pupil control ideology, although a number of other variables are known to affect teachers' occupational stress.

6. More factors/variables can also be included in the questionnaire as stress can be caused by many different aspects of the working environment. With increased sample size, a more detailed empirical study among independent variables and the variables that have multiple categories can be performed; and need to be reported in a future study.
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Appendices
### APPENDIX A-1

**Teachers Occupational Stress Scale**

Please indicate your opinion about each statement by putting a tick mark (✓) in any one of the five columns against the given statements that best represent your beliefs.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Statements</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>1.</td>
<td>I am bored with my job.</td>
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<td>2.</td>
<td>My opinions are not appreciated by my principal.</td>
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<td>3.</td>
<td>My job does not satisfy me any longer.</td>
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<td>4.</td>
<td>My students do not respond well to my teaching.</td>
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<td>5.</td>
<td>Going for my job is very exhausting for me.</td>
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<td>6.</td>
<td>I have difficulty concentrating at work.</td>
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<td>7.</td>
<td>I face alienation at work.</td>
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<td>8.</td>
<td>I do not have ample control over my students.</td>
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<td>9.</td>
<td>My workplace environment is not very pleasing.</td>
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<td>10.</td>
<td>I get easily irritated at work.</td>
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<td>11.</td>
<td>I avoid communication with my students.</td>
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<td>12.</td>
<td>I lose confidence when interacting with my work colleagues.</td>
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<td>13.</td>
<td>I feel unwell at work.</td>
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<td>14.</td>
<td>I avoid interaction with my colleagues.</td>
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<td>15.</td>
<td>I avoid glancing at my students.</td>
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<td>16.</td>
<td>I feel sick when I think about work.</td>
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<td>17.</td>
<td>I usually think and worry about my promotion.</td>
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<td>18.</td>
<td>I am anxious when I am about to give a lecture in my class.</td>
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<td>19.</td>
<td>Students’ queries in classroom annoy me a lot.</td>
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<td>20.</td>
<td>I feel stressed out at work.</td>
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</tbody>
</table>
## APPENDIX A-2

### Teachers Job Satisfaction Scale

Please indicate your opinion about each statement by putting a tick mark (✓) in any one of the five columns against the given statements that best represent your beliefs.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Statements</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Teachers lead vocationally unsatisfied lives.</td>
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<tr>
<td>2.</td>
<td>People give me much respect when they know that I am a teacher.</td>
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<td>3.</td>
<td>Most people regard teacher as a poor creature.</td>
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<tr>
<td>4.</td>
<td>It would have perhaps been better if I had joined some other profession.</td>
<td></td>
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</tr>
<tr>
<td>5.</td>
<td>School authorities do not deserve co-operation from teachers.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6.</td>
<td>Due to the nature of my colleagues, I find it difficult to cooperate with them.</td>
<td></td>
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</tr>
<tr>
<td>7.</td>
<td>Given fresh opportunity for choosing a career, I will again choose teaching.</td>
<td></td>
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<td></td>
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<tr>
<td>8.</td>
<td>Teaching is dull because teachers deal only with facts out of books.</td>
<td></td>
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<tr>
<td>9.</td>
<td>Opportunity of further progress is lacking in teaching.</td>
<td></td>
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</tr>
<tr>
<td>10.</td>
<td>Teaching profession does not attract brilliant and efficient persons.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>11.</td>
<td>By nature the school children are troublesome creatures.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>12.</td>
<td>The teaching profession is one among the few noble professions.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>13.</td>
<td>Teaching is boring because of repetition of similar work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>14.</td>
<td>The teachers are not given due respect by the society.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>15.</td>
<td>Economic condition of a teacher makes me dislike this profession.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>16.</td>
<td>I feel proud of introducing myself to anyone as a teacher working in a school.</td>
<td></td>
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</tr>
<tr>
<td>17.</td>
<td>School authority treats teachers roughly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>To control students is a headache for the teachers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>The end of my working day brings dissatisfaction for me.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
APPENDIX A-3

Work Values Scale

Respondents are requested to rank order all the 11 items from the most important to the least important related to their work life.

I prefer the job which provides:

1. Good Economic Return
2. High Status (Prestige)
3. Opportunities of Human/ Social Service
4. Friendly/ Cooperating Colleagues
5. Security of Service
6. Fair/ Sympathetic Supervisions
7. Opportunities of further Progress/ Advancement
8. Opportunities of Intellectual Stimulation
9. Work consistent with my life Goals/ Values
10. Opportunities of exercising Power/ Authority
11. Freedom in my work
# APPENDIX A-4

## Pupil Control Ideology Scale

Please indicate your opinion about each statement by putting a tick mark (✓) in any one of the five columns against the given statements that best represent your beliefs.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Statements</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A few pupils are just young hoodlums and should be treated accordingly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Pupils must be made to know that teacher's authority is supreme.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>If pupils are given the freedom to manage their affairs, they will surely abuse it.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4.</td>
<td>Most pupils will do not work, if teacher’s fear is not there.</td>
<td></td>
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</tr>
<tr>
<td>5.</td>
<td>Friendly treatment by teacher makes the students too bold and careless.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6.</td>
<td>In order to get things done by the students, the teachers must be strict.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7.</td>
<td>Pupils who challenge teacher’s viewpoint learn nothing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Pupils should not be allowed to point out teacher’s mistakes because it lowers down his prestige.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Pupils should not argue with the teacher on any point because it would disturb class discipline.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Misbehaving pupils can not be corrected through persuasions and love.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Teachers’ closeness with the pupils or mixing up with them is harmful for class discipline.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Outside the class, the pupils should be allowed to meet the teachers only by appointment.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>13.</td>
<td>It leads to chaos and ill discipline, if pupils are allowed to question correctness of teacher’s discussions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Teacher will lose command over the class, if his contact with pupils becomes informal and friendly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Sometimes ridicule and rebuke act as medicine to cure undesirable behaviours of the pupils.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>It serves no purpose to be regardful and considerate towards delinquent pupils.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Pupils begin to interfere in teachers’ work, if they are given freedom to participate in planning and execution of teaching work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>No student should be exempted from rules and regulations of the school on any ground.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>The teachers who care for popularity can not enforce discipline in his class.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>The teacher who has too much regard for feelings and sentiments of delinquents is not their real well wisher.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B-1

Personal Information Sheet

Please fill up the following information and answer the following questions by putting a tick mark (✓) against the option of your choice. Your responses will remain confidential and will be used for research work only. Your opinion is greatly appreciated.

1. Name of the Teacher: .................................................................
2. Gender.................................................................Male/ Female
3. Name of the School: ..........................................................
4. Classes with Subjects Taught: ..............................................
5. Medium of instruction:
   (a) Hindi       (b) English
6. Experience in Teaching:
   (a) 0-5 Years       (b) 6-10 Years
   (c) 11-15 Years     (d) 16 Onwards
7. Qualification:
   (a) Untrained       (b) TGT
   (c) PGT
8. Salary (Total Emoluments):
   (a) Upto 15,000       (b) 15,000 Onwards
List of Publications and Presentations

Publications


Papers in communication


Papers presented


2. Value Oriented Education: Need of Post-Modern Era (2012). International Seminar on “Postmodernism: Dimensions and Challenges”, organized by Department of Sanskrit (Interdisciplinary), Faculty of Humanities and Social Sciences from 1st-3rd March, Shri Varshney College, Aligarh, India.

3. Integrating ICT into Teacher Education (2012). National Seminar on “Amalgamation of Information and Communication Technology: To levitate the quality of Teacher Education”, organized by Department of Teachers Education on 12th March, Institute of Information Management & Technology, Aligarh, India.

Publications
DEMOGRAPHIC DIFFERENCES AND OCCUPATIONAL STRESS OF SECONDARY SCHOOL TEACHERS

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Abstract

The present study examined the relationships of a set of independent variables (gender, qualification, teaching experience, salary, subjects taught and marital status) with occupational stress among secondary school teachers. The population in this study consists of 608 teachers from 42 schools of Uttar Pradesh (India). The Teachers Occupational Stress Scale was used for data collection, while t-test and F-test are used for statistical analysis. According to the results of the analysis, nearly half of the secondary school teachers experience less stress towards their job and males display more occupational stress towards job than females. Moreover, the trained graduate teachers are found to have higher occupational stress than post-graduate and untrained teachers. Teachers with an experience of 6-10 years face occupational stress the most, and 0-5 years the least; while those falling in the remaining two groups slide in between these two. Findings also reveal no significant differences between monthly salary, subjects taught, marital status and occupational stress of secondary school teachers.

Keywords: Gender, qualification, marital status, occupational stress, secondary school teachers

Introduction

Occupational stress is known as stress at work. It occurs when there is a discrepancy between the demands of the workplace and that of individual’s (Tsutsumi et al., 2009). Job stress, also known as occupational stress, has been defined as the experience of negative emotional states such as frustration, worry, anxiety and depression attributed to work related factors (Kyriacou, 2001). Occupational stress in the human service professions, particularly in teachers, has been a focus of study in the last decades. Most surprisingly, school teachers
have been considered to be under stress (Beer & Beer, 1992; Boyle et al., 1995; Hammen & De Mayo, 1982; Kinnunen, 1988; Kinnunen & Salo, 1994; Kyriacou, 1987; Malik, Mueller, & Meinke, 1991; Smith & Bourke, 1992; Pithers, 1995), undergoing the process of burnout (Beer & Beer, 1992; Burke & Greenglass, 1995; Kyriacou, 1987) or suffering from depressive symptoms (Beer & Beer, 1992; Hammen & De Mayo, 1982; Schonfeld, 1990; Schonfeld, 1992). There exists a substantial body of literature describing teaching as stressful occupation and suggesting that teacher stress appears to be an increasing problem (Antoniou et al., 2006; Chaplain, 1995; Guthrie, 2006; Kyriacou, 2001; Laughlin, 1984; Manthei & Gilmore, 1996; Munt, 2004; Punch & Tuettman, 1996). In recent time, several studies have examined occupational stress in the teaching profession. Studies have suggested that teachers experience disproportionately high level of stress (Adeyemo & Ogunyemi, 2005; Borg, 1990).

A number of factors have been shown to influence teachers' decisions about staying on or leaving the profession, including job stress, job satisfaction, resilience, and self-efficacy (e.g., Chan, et al., 2008; Day, et al., 2009). Typically, they include stressors in the areas of work role (e.g., workload); administration; class size; role ambiguity and conflict, (e.g., the sometimes conflicting demands of school management); the pressures of the teachers' roles (e.g., counsellor, facilitator); poor working conditions; little recognition and low remuneration; lack of involvement in decision-making; student recalcitrance; lack of effective communication, as well as the many emotional demands of teaching (e.g., Blix, et al., 1994; Brown & Ralph, 1992; Cooper & Kelly, 1993; Punch & Tuettman, 1990). In addition, a study in Bahrain by Al-Khalefa (1999) observed work conditions, salaries, bonuses and allowances, status of physical education, supervision, school facilities, workload and career development to be the major causes of stress for physical education teachers. Teachers who become burned out may be less sympathetic toward students, may have a lower tolerance for frustration in the classroom, may plan for their classes less often or less carefully, may fantasize or actually plan on leaving the profession, may feel frequent emotional or physical exhaustion, may feel anxious, irritable, depressed, and in general, may feel less committed and dedicated to their work (Farber & Miller, 1981).

Furthermore, Farber (1984) assessed the sources of stress of suburban teachers in the United States and found that excessive paperwork, unsuccessful administrative meetings, and the lack of advancement opportunities in teaching were related to stress. Workload, lack of resources, poor professional relationships with colleagues, inadequate salary, pupil
misbehaviour, difficult interactions with parents and expectations of other staff have been identified as sources of stress in many studies (Borg, Riding & Falzon, 1991; Boyle, et al., 1995; Pierce & Molloy, 1990; Pithers & Soden, 1998; Travers & Cooper, 1993). Smilansky (1984) examined teachers' work satisfaction and reports of job-related stress in some English elementary schools, and he found that teachers' general satisfaction and stress at work were related mostly to their reported feelings about what had happened within class (such as relations with pupils, the process of teaching, and pupil behavior in school) rather than to administrative or policy questions (such as degree of work autonomy, relations with principals). Negative self-perception, negative life experiences, low morale, and a struggle to maintain personal values and standards in the classroom all take their toll (Goodman, 1980; Schnacke, 1982; Schwanke, 1981). Stressed teachers had more illness, medicine intake, anxiety, depression, and sexual passivity. More psychological and psychosomatic symptoms were reported by teachers experiencing high burnout (Bauer et al., 2006).

Background Studies

Research suggests that gender may be an important demographic characteristic to be considered in the experience of stress (Jick & Mitz, 1985). Mondal et al. (2011) found a significant difference between male and female teachers, with male teachers having more psychological stress and physical stress than the female teachers. Also, male teachers were reported to be more insecure and emphasized financial concerns, while females expressed concerns about intrinsic facets of their jobs (Rosenblatt et al., 1999). Moreover, males were observed to have higher stress and anxiety than the females (Cheng, K.-L., Kelly, 1993; Brember et al., 2002, Gursel et al., 2002, Chaplain, 1995). Quite contrary to this, female teachers tended to complain more of burnout than male teachers (Chan & Hui, 1995; Ravichandran & Rajendran, 2007; Bhadoria & Singh, 2010). Some researchers also fail to advocate any significant result to support a gender difference in their studies regarding level of stress and gender (Siong & Yet, 2003; Fontana & Abouserie, 1993).

Studies on the relationship between teachers occupational stress and their qualification have shown that postgraduate teachers have significantly less job satisfaction on job role item than the undergraduate and graduate teachers (Mondal et al., 2011). Hong Kong teachers without finishing professional training and of junior rank reported themselves to be more burned out in a study by Lau et al. (2005). Quite opposite to this, teachers qualification was not correlated to their stress level (Lam Yee Mei, 2006). Other data support no
significant difference between stress and academic qualifications of the teachers (Cheng, K.-L., Kelly, 1993; Mokdad, 2005). The early years of a teacher’s career have been recognized as being stressful. Contradict to this, the year of experience on the school teachers did not show any significant effect on job satisfaction and job stress (Mondal et al., 2011; Johannsen, 2011; Jepson & Forrest, 2006; Chona C. Roxas, 2009). Younger and less experienced teachers were observed to be more burned out than older or more experienced teachers (Abdul Majid, 1998; Lau et al., 2005; Bhadoria & Singh; 2010). Also, low wages and limited opportunities for promotion, teachers' goals (occupational and financial) have been identified as a source of stress for Greek primary and secondary teachers (Koustelios and Kousteliou, 1997; Papastylianou, 1997). Inadequate salary and low status were found to be important in predicting job stress among high school teachers (Litt & Turk, 1985). Khurshid et al. (2011) showed that the teachers with low income experience more occupational role stress than teachers with higher income level.

On the same note, Social Science teachers exhibited better job satisfaction than Language, Mathematics and Science teachers (Mehra & Kaur, 2011); while Shukla (2008) revealed no significant difference in the relationship between perceived burnout and teaching effectiveness as perceived by teachers on the basis of subjects taught (Language, Social Science, Science). In addition to this, marital status was related to the reporting of stress with those who were widowed/divorced/separated generally having a higher proportion in the high reported stress category (Smith et al., 2000). Quite opposite to this, researchers (Yahaya et al., 2006; Cheng, K.-L., Kelly, 1993; Chona C.Roxas, 2009) indicated no significant differences between the marriage status groups in stress levels.

**Purpose of the Study**

The purpose of this study was to examine the relationship of occupational stress (dependent variable) with gender, qualification, teaching experience, salary, subjects taught and marital status (independent variables) among secondary school teachers.

**Research questions**

The research questions for this study include the following:

- What is the level of occupational stress in secondary school teachers?
- Do the demographic factors (gender, qualification, teaching experience, salary, subjects taught and marital status) explain the differences in occupational stress of secondary school teachers?
Method

The present work is a descriptive study investigating whether the occupational stress faced by the school teachers differed significantly to their level of occupational stress and demographic factors. The sample consisted of 608 secondary school teachers, selected from 42 schools of eastern, central and western U.P., of India, in which 281(46.22%) were male and 327 (53.78%) were female teachers.

Tools Used

To obtain the data Teachers Occupational Stress Scale (TOSS) was developed along with a general proforma by the investigators. The TOSS is a 20-item instrument, containing all negatively worded statements. The instrument uses a five point Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree). Teachers occupational stress score is calculated by adding the individual scores of all the items together whose possible range can be between 20-100. High score on the TOSS indicate a high level of stress among the teachers towards the occupation. Teachers stress levels are categorized into less, moderate and more level of stress in accordance with average stress scores obtained. According to the investigators, this scale has split-half reliability of 0.79. The inner consistency coefficient determined by the alpha correlation, which is a generalized form of 20 formulas of Kudar Richardson, is 0.88. Another consistency test of the scale is performed by item total correlations technique. Item total score correlations are between the range of 0.35 – 0.69 of all items with total test.

Results and Analysis

The secondary school teachers are divided into three groups (Table 1), that is less, moderate and more stressed groups, on the basis of their Occupational Stress Scores. The occupational stress levels of secondary school teachers are between the following range: Less level of Occupational Stress (i.e. 20-50 scores), Moderate level (i.e. 51-70 scores), and More level of Occupational Stress (71-100 scores). An examination of Table 1 shows that the percentages of More, Moderate and Less Stressed groups of teachers are 11.35%, 40.95% and 47.70% respectively. In male sub-group, this translates into 14.59%, 45.91% and 39.50%, while in female sub group it is 8.56%, 36.70% and 54.74% respectively. Thus, it is evident from the analysis that nearly half of the teachers are in less stressed group and generally male teachers experience more stressful situations about their occupation than their counterparts.
Table 1: Percentage of Teachers Experiencing Less, Moderate and More Stress towards Job

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Occupational Stress Groups</th>
<th>Number of Teachers in each Group</th>
<th>Percentage of Teachers in each Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>608</td>
<td>Less Stress</td>
<td>290</td>
<td>47.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate Stress</td>
<td>249</td>
<td>40.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More Stress</td>
<td>69</td>
<td>11.35</td>
</tr>
<tr>
<td>Male</td>
<td>281</td>
<td>Less Stress</td>
<td>111</td>
<td>39.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate Stress</td>
<td>129</td>
<td>45.91</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More Stress</td>
<td>41</td>
<td>14.59</td>
</tr>
<tr>
<td>Female</td>
<td>327</td>
<td>Less Stress</td>
<td>179</td>
<td>54.74</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate Stress</td>
<td>120</td>
<td>36.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More Stress</td>
<td>28</td>
<td>8.56</td>
</tr>
</tbody>
</table>

It is evident from the result shown in Table 2 that the mean occupational stress scores of male and female teachers are found 53.40 and 49.60 with SDs of 15.44 and 14.81 respectively. When the means of two groups compared, the difference between comparison groups is found statistically significant ($t=3.09$, $P<0.01$). The trend of result showed that male teachers are significantly more stressed with their job than female teachers.

Table 2: Comparison of Mean Occupational Stress Scores of Male and Female Teachers

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean Occupational Stress Score</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>P&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>281</td>
<td>53.40</td>
<td>15.44</td>
<td>3.09</td>
<td>606</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Female</td>
<td>327</td>
<td>49.60</td>
<td>14.81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 3, t-test is performed to ascertain whether there is any difference in occupational stress of teachers according to their qualification. Results show that trained graduate teachers have significantly higher occupational stress ($M=57.22$, $SD=15.39$) than
those of other two groups. Furthermore, post-graduate teachers ($M=49.50$, $SD=14.55$) experience significantly less occupational stress than both the two groups of teachers.

**Table 3:** t-values obtained from comparison of Mean Occupational Stress Score of three groups of Teachers formed on the basis of Qualification

<table>
<thead>
<tr>
<th>Qualification</th>
<th>N</th>
<th>Mean Occupational Stress Score</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untrained (U)</td>
<td>206</td>
<td>51.96</td>
<td>15.61</td>
<td></td>
</tr>
<tr>
<td>TGT (T)</td>
<td>80</td>
<td>57.22</td>
<td>15.39</td>
<td>2.57*</td>
</tr>
<tr>
<td>PGT (P)</td>
<td>322</td>
<td>49.50</td>
<td>14.55</td>
<td>1.84 4.20**</td>
</tr>
</tbody>
</table>

*P<0.05, **P<0.01

Mean scores of the teachers stress based on their teaching experience presented in Table 4, show teachers with an experience of 6-10 years have significant highest mean occupational stress scores ($M=55.11$, $SD=16.53$) than the other three teaching experience groups. Similarly, those teachers with 11-15 years of teaching experience have significantly higher occupational stress scores ($M=51.37$, $SD=14.28$) than those with 0-5 and 16 onwards groups; and teachers in the 16 onwards group have significantly higher occupational stress scores ($M=49.81$, $SD=12.90$) than those with 0-5 years of experience group. Further, teachers with 0-5 years of experience have significantly lowest occupational stress scores than those other three groups ($M=48.66$, $SD=15.30$).

**Table 4:** t-values obtained from comparison of Mean Occupational Stress Score of four groups of Teachers formed on the basis of Experience in Teaching

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>N</th>
<th>Mean Occupational Stress Score</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 (I)</td>
<td>181</td>
<td>48.66</td>
<td>15.30</td>
<td></td>
</tr>
<tr>
<td>6-10 (II)</td>
<td>183</td>
<td>55.11</td>
<td>16.53</td>
<td>3.86**</td>
</tr>
<tr>
<td>11-15 (III)</td>
<td>113</td>
<td>51.37</td>
<td>14.28</td>
<td>1.52 1.99*</td>
</tr>
<tr>
<td>16 onwards (IV)</td>
<td>131</td>
<td>49.81</td>
<td>12.90</td>
<td>0.70 3.06** 0.90</td>
</tr>
</tbody>
</table>

*P<0.05, **P<0.01

165
Table 5 shows there is no significant difference between monthly salary and occupational stress among secondary school teachers. Teachers with higher monthly income are not necessarily having higher stress levels than their colleagues with lower monthly income, vice versa.

**Table 5:** Comparison of Mean Occupational Stress Scores of two groups of Salary of Teachers

<table>
<thead>
<tr>
<th>Salary</th>
<th>N</th>
<th>Mean Occupational Stress Score</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>P&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 15,000</td>
<td>386</td>
<td>50.73</td>
<td>15.93</td>
<td>1.34</td>
<td>606</td>
<td>Not Sig.</td>
</tr>
<tr>
<td>15,000 onwards</td>
<td>222</td>
<td>52.44</td>
<td>13.85</td>
<td>1.34</td>
<td>606</td>
<td>Not Sig.</td>
</tr>
</tbody>
</table>

One-way ANOVA was used to compare the four subject groups taught by the teachers: languages, arts, social sciences and sciences. As shown in Table 6, occupational stress is not found among the teachers teaching languages, arts, social sciences and sciences.

**Table 6:** Summary of analysis of variance in respect to Occupational stress and Subjects taught by Teachers

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>535.63</td>
<td>178.54</td>
<td>0.77</td>
<td>Not Sig.</td>
</tr>
<tr>
<td>Within Groups</td>
<td>604</td>
<td>139973.04</td>
<td>231.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>607</td>
<td>140508.67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A t-test is used to compare married and unmarried teachers on total scores on the Teachers Occupational Stress Scale. The results in Table 7 reveal no significant difference in the marital status and occupational stress of secondary school teachers.
Table 7: Comparison of Mean Occupational Stress Scores of Married and Unmarried Teachers

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>N</th>
<th>Mean Occupational Stress Score</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>P&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>436</td>
<td>51.68</td>
<td>15.32</td>
<td>0.86</td>
<td>606</td>
<td>Not</td>
</tr>
<tr>
<td>Unmarried</td>
<td>172</td>
<td>50.51</td>
<td>14.95</td>
<td></td>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

Discussion

The present study suggests that nearly one-half of the population of secondary school teachers (47.70%) face less stress towards their occupation, while among the remaining teachers a large chunk of population falls into moderate stress group (40.95%); in contrast, a minor group consisting of 11.35% of the total population has more stress towards teaching profession. This is in partial accordance with Durani’s observation (2009) who reported that among 150 women working as teachers in schools, 39% were having low stress, 20% were having high stress, 15% were having very average stress, 13% were having very high stress, 8% of the respondents no stress, and 5% very low stress and 0% i.e. negligible were abnormal. This result is discordant with that of Nayak et al. (2009), who found the higher percentage of teachers (70.5%) to be in the low stress category, followed by very low stress category (23.5%) and lesser percent in moderate stress category (6.0%).

Gender-wise analysis shows that male teachers are more stressed than female teachers. The lesser degree of job satisfaction among male teachers can be attributed to the perceptions of female teachers to shoulder the responsibilities same as males in this competitive world, along with their aspiration level, social acceptability, challenges, job responsibilities and career development. Moreover, it is a widely accepted fact that secondary schools are heading towards the work environments that are non-masculinized. The finding is supported by Byrne (1998) and Bhagawan (1997) who emphasized that the causes leading to burnout/stress affect male teachers more than the female teachers who have higher motivation. Whatever the underlying explanation, the results reported here contradict those of other studies that reported higher stress in female primary and secondary staff (Antoniou et al., 2006; Laughlin, 1984; McCormick & Solman, 1992b; Timms et al., 2006; Abdul Majid, 1998), and no difference between the gender in the three burnout syndrome (Zhao & Bi, 2003; Dali, 2004; Coulter & Abney, 2009).
This study shows a significant difference between occupational stress among school teachers and their qualification. The mean occupational stress scores of teachers ranges from more (Trained Graduate Teachers, 57.22) to less (Post Graduate Teachers, 49.50) with Untrained teachers in between (51.96). This disparity can be accounted to those teachers who attained a lower level of qualification or were not trained enough would be more susceptible to malicious demands from others on the understanding that they are not confident enough to stand on their stance and belief, which further escalates their perception on their stressors. However, with regard to their trained or higher degree holder counterparts, most of them were already a bachelor's degree holder once they entered the profession and possess a deep knowledge of their subject. In this connection, less stress was experienced by them with respect to this aspect. Study by Kyriacou and Sutcliffe (1978) has proved that teachers with higher academic qualification, such as bachelor or higher were less stressed than their colleagues with lower academic qualification, such as diploma.

This study also reveals a significant corresponding relationship among the four subgroups of teachers experience and occupational stress. This means, the stress in teachers should increase with an increase in the years of their teaching experience. But the teachers with an experience of >16 years are not found to support this notion. The reason might be related to their professional role as a teacher that at older age, the role burden usually gets diluted because of their potentiality, increased capacity to analyze their role due to the job clarity; thus, they could perform their roles better. Moreover, the older teachers might be more experienced and adaptable to the environment and more ready to cope with stress (Huberman, 1993). Also, this study finds that those with an average range of experience, that is, 6-10 and 11-15 years appear to have most stress. This can be explained, as the experience in Indian teachers increases, they become more saturated or exhausted and tired and worn out. This may make them feel less competent, less successful and incompetent to cope with the challenging demands of their jobs. Also, they might not be confident enough in teaching/dealing with disruptive pupils as they probably are inexperienced in their profession comparison to their senior colleagues. Researches have also indicated that teachers length of teaching has significant effects on their personal teaching efficacy, depersonalization and reduced personal accomplishment (Li et al., 2007). In this study, teachers having 0-5 years of teaching experience are seen to be less stressed of all, may be because they are in the initial years of their career making and enjoy their job to the fullest.
The present study advocates no significant difference in occupational stress and salary. This result can be viewed as occurrence of better promotion prospects probably, job security or better pays of teachers as their qualifications are concerned. Robbins et al. (1994) indicated that the more important factors conducive to job satisfaction include mentally challenging work, equitable rewards, supportive working conditions and supportive colleagues. Quite opposite to this, poor salary was found to be the main cause of job dissatisfaction (Ofili et al., 2009; Anitha, 2007). Furthermore, another variable which is not found to be an influencing factor for occupational stress among teachers, is the subjects taught by the teachers. This indicates that the languages, arts, social sciences and sciences teachers do not differ on the level of stress experienced by them. This may be because every subject has its own value for the teacher and their prime concern is to make the students understand their subject and teach well so as to clear their concepts, irrespective of the subject taught by them. Also, no significant associations between the occupational stress of teachers and marital status are presented in this study, and this finding is in accord with results of Al-Qaryoti & Al-Khateeb (2006) who reported that being married or not does not effect on the level of burnout among Arab teachers. This result is not consistent with the findings of Gold and Roth (1993), who stated that unmarried teachers had a higher stress level than married teachers.

Conclusion and Recommendations

The study concludes that nearly half of the teachers are in less stressed group and male teachers face more occupational stress than their counterparts. Further, it is revealed from the result that trained graduate teachers have significantly higher occupational stress than post-graduate and untrained teachers. The study also finds that occupational stress is most prevalent among teachers with an experience of 6-10 years and least among 0-5 years of experience in teaching. Further, a no significant difference is seen between the monthly salary and occupational stress of secondary school teachers. Also, no significant difference is found among the teachers teaching languages, arts, social sciences and sciences. In addition to this, the study also supports no significant difference in the marital status and occupational stress of secondary school teachers.

Stress affects the efficiency of the individual. So, there is a need to provide proper conducive environment and support to teachers to maintain individual stress at their workplace. Teachers should be positive in facing their challenges, which will help them in
improving their functional skills and reduce stress, so that their profession is not affected. It is recommended that regular assessment of stress level should be conducted for preventive measures. Direct physiological measures of stress like diagnostic tests and consultation should be conducted by the Guidance Center and Medical Clinic. Besides that, the institution or management should check that supervision, support and relationship with the teachers is properly taken care of and enhanced most strongly. Most importantly, it is recommended that principals and supervisors should investigate the causes for stress and evaluate the organizational climate of the school. They should also suggest ways, like workshops and seminars to alleviate and cope with stress.

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CONTRIBUTION OF VALUE EDUCATION TOWARDS HUMAN DEVELOPMENT IN INDIA: THEORETICAL CONCEPTS

Shagufta Munir
Mariya Aftab

ABSTRACT

Value education is not simply the heart of education, but also the education of the heart. It is a necessary component of holistic citizenship education. Value education has been globally perceived as an answer to the challenge of strengthening moral and social fabric of societies. Fostering of fundamental and human values and generating a caring and compassionate consciousness has tremendous potential to salvage the human goodness. The central idea behind value education is to develop essential values among the students and it teaches to manage complexities that can be continued and further developed. Value education is a vital ingredient required to develop a strong moral basis to a student’s life and to give them opportunity of doing well on the world. Due to modern developments and fast changing role of parents, it has been very difficult for parents to inculcate significant values in their child. The school which gives education should also give equal importance to values, ethics and personality development as a means of preserving the standards of education. Values help us not only in self-evaluation, but also in self-drive too. Education in values is essential in helping each one of us directly encounter the values that we hold, understand them completely, so that we may order our relationship to the environment that lies outside us. This paper emphasizes that value education in modern context is considered much wider, transcending the boundaries of religions and encompassing ethical, social, aesthetic, cultural and spiritual values. Value oriented education needs to be realistically achievable in consonance with the academic framework of a school. The authors advocate that a judicious combination of academics, culture and value education will be an ideal approach to education and value education needs to be integrated within the school curriculum.

Key Words: Value education, Human development and School curriculum

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INTRODUCTION

Education is an essential human virtue that has become significant and crucial in terms of changes as well as quality. It plays the most vital role as an instrument of social change to connect with theory at the level of cultural impact and policy implication, for the development of the society. The first step in the direction of changing the world is to take the needed steps for radical change in the human consciousness. With a view to equipping children of today, who will be the citizens of tomorrow, education has to be reoriented and revamped altogether. Emerging hopes and aspirations in the minds of people have posed new challenges and new problems in re-orientation and re-energisation of education in values at all stages. So, value orientation of education has to be considered as one of the most important means to achieve the re-orientation and re-energisation of education. This will help human beings to conduct themselves in the more desirable directions, and to shape their life patterns by strengthening their beliefs and by integrating facts, ideas, attitudes and actions. It will also help people to become a useful member of the society and develop an appreciation of their culture heritage and live more satisfying lives (Bequist, 1992; Bloom, et al., 1981). Moreover, this will help clarify their aims in life as well as the process to achieve them.

Value education system that aims to enrich the level of one's understanding and respect for various values, and aims to bring an individual's maturity of mind is called value-based education. Value education is a planned educational programme aimed at the development of values in students. In the words of Gawande (2002), when human values are inculcated through curriculum to transcend to cognitive, affective and psychomotor level for conducive development of individual, society, national and international understanding, it is called value education. The evolution of value-oriented education dates back to the pre-independence and after independence period, where several commissions and committees recommended character education, religious education and moral education. Also, moral and religious education were broadly defined and coined into value education (National Education Policy of India, 1986). In moral education each society fixes its own ideals and it is the endeavor of the society to keep these ideals stable. But in value education the changes in human behavior are studied in its new perspective and propagated through various media. Thus, value education encounters with the total personality of the individual student keeping in view all aspects of human personality development—the intellectual, emotional and social. It makes an individual a good child, parent, adult and citizen, and keeps the people and society intact. Value education is considered much wider so as to transcend the boundaries of religions and encompass ethical, social, aesthetic, cultural and spiritual values. This broadened concept has many implications for value education programmes at the school stage.

Values are regarded enviable, imperative and are apprehended with high esteem by a particular society in which a person lives. Values give meaning and strength to an individual’s character by occupying a central place in his/her life. Values reflect one's personal attitude and judgments,
decisions and choices, behavior and relationships, dreams and vision. Values are useful indicators of an individual’s decisions and actions (Rokeach, 1973). These values influence our thoughts, feelings & actions and guide us to do the right things. Values are the guiding principles of life that contribute to the all round development of an individual. They give a direction to life and thus bring joy, satisfaction and peace. Values add quality to life. Values are defined as enduring beliefs, specific modes of conduct or end states of existence alongwith continuum of importance and are relatively resistant to change (Meglino & Ravlin, 1998; Ravlin & Meglino, 1987, 1989; Rokeach, 1973). Thus, one might say that any human activity, thought or idea, feeling, sentiment or emotion, which promotes self-development of an individual, constitutes a value. The other corresponding function of a value is that it should also contribute to the welfare of the larger social unit such as the family, the community and the nation of which an individual is a constituent. Value system is the backbone of the society. Values may vary from one society to another and from time to time. But, every society abides by certain moral values, and, these values are accepted by all the societies as “Global values”. Values to be inculcated at primary and secondary school levels are courage, truth, universal love, respect for all religions, respect for elders, dignity of manual work, service, purity, peace, joy etc.

Why is there a need to imbibe values among individuals?
In the present Indian scenario, due to manifold changes in various aspects of our civilization such as population explosion, advancement in science and technology, knowledge expansion, rapid industrialization, urbanization, mobilization, IT revolution, liberalization, privatization & globalization as well as the influence of western culture, present society has become highly dynamic. The degeneration in the present day life, the demoralization of public and private life and the utter disregard for values, are all traceable to the fact that moral, religious and spiritual education has not been given due place in the educational system (Rena, 2006). Modernization process is accompanied with multifold problems, anxieties and worries to human life, endangering its original simple nature. Growing global poverty, pollution, hunger, disease, unemployment, unsociability, caste system, child labour, gender inequality, ill-treatment of women, violence, disability, exploitation of natural resources and many such evils have caused value- crisis on the globe, adversely affecting the core human values such as honesty, sincerity, morality and humanity and, as such, there is a great transition in human society. To overcome the problems of the present era, inculcation of values among individuals and promotion of values in educational system, as well as society, is highly essential.

The need of values can be summarized as below:
• To guide the human beings in the right path, to inculcate the concept of ‘universal brotherhood’ and to achieve the absolute values of Truth, Goodness and Beauty;
• To give direction and firmness to life and bring joy, satisfaction and peace, of life, to preserve our culture and heritage and to develop morality and character;
• To bring the behavioural changes towards positivism;
• To promote the peace and harmony in the individuals and in the society;
• To bring quality of life and sustainable development in the society.

Above all, the most important need is to inculcate all the five core values (truth, righteousness, peace, love and non-violence) among the people to make them good human beings in true sense. As we know that school is considered as a sub-system of overall social organisation is expected to act as an agent of preserving and strengthening the social structure, and should therefore translate the value system of the society in terms of aims and objectives for various school programmes. Keeping in view the requirements of providing facilities for all-round development of the child, the students should imbibe the following values and the school should provide the necessary activities and programmes to inculcate them:

1. **Aesthetic values**: Love for the fine art, dancing, painting and music as well as for the symmetry and beauty in nature, rhyme and rhythm in poetry etc.
2. **Spiritual values**: Importance given to the soul or the spirit etc. through yoga and meditation.
3. **Moral or ethical values**: Values related to the code of conduct, honesty, integrity, discipline, self-control, self-reliance, inquiry into the good, the bad and the ugly aspects of human behaviour, code of conduct based on logical reasoning.
4. **Social values**: Concerning the responsibilities and the contribution of the individual towards the society and its wellbeing. These are governed by the political and social philosophy and the Constitution of the country, freedom, socialism, secularism, democracy, national integration, international understanding, democratic citizenship, equality, social justice, peace, inner harmony, fellow feeling, unity in the midst of diversities, civic sense, responsibility of citizens, camaraderie and cooperation, participation in community activities etc.

**How to indoctrinate values?**

Various co-curricular and curricular activities are required to be given proper orientation, to be an instrument of inculcation of such values. In fact, values are woven in every activity of the school and also in every subject being taught. School environment and academic climate must be so modified that it provides rich experience to the children. The textbook material should be correlated with learning of values by identifying areas in which the desired values may be promoted. The following five steps have been identified for inculcation of values through curricular programmes by suitably introducing the element of values at every step:

1. **Knowing**: The student must be made aware of the inherent values or ethical issues while going through a particular topic.
2. **Making judgments**: The student must be provided with conflicting situations while teaching or learning to enable him or her to judge the implications of the related value.
3. **Believing**: Emphasis should be given to the relevant points helpful in development of faith in these related values.
4. **Action:** The student should be encouraged to practice these values in actual life situation as a result of change in his or her behavior brought about by relevant and meaningful experiences.

5. **Internalization:** Through constant emphasis on relevant ideas, thoughts and actions, the student should be led to a stage where the practice of acquired values becomes spontaneous and immediate. It should be noted that values cannot be taught like a subject, i.e. like language, history, science or mathematics. They can be inculcated through situations deliberately planned while teaching various school subjects.

**How teachers can help in the promotion of values for human development?**

The learning does not solely come from the teacher but the educator for the child is both the teacher and his peer group. Children often see teachers as important role models on par with parents (Rose, 2005). In this light, the teacher is more of a guide and facilitator, and indeed, the true partner in learning (Erwin, 1991). Within any society in which brainpower is the major form of capital, teaching stands as the key occupation for the simple reason that it is the prime vehicle by which the nation's intellectual and human resources are developed, their value added to and realized (Neave, 1992). The role of teachers needs to be determined not only in the context of promoting values but also in that of providing more effective methods of education. Teachers should not only be good in teaching but also be a good citizen possessing basic moral and aesthetic values. Teacher's function is not confined to what he or she does during his teaching hours in the classroom; in reality he or she teaches all the time, constantly, by acting as the role model before the students.

A teacher cannot promote values except by working as a role model. The role is crucial in any action programme to strengthen and nourish the values initially the child has in him. A teacher can help the students in developing a new attitude, a positive approach towards their daily learning tasks and sports, wanting to do something good for oneself, family, friends, society, country and the globe. Environment and resource conservation, and caring for nature are basically to be looked into. The whole education has to be value added and value-oriented, so as-

(i) To promote basic and fundamental qualities like compassion, truthfulness, peace, justice etc. in the children.

(ii) To train them to become responsible citizens in personal as well as social life.

(iii) To enable them to become open and considerate in thought and behaviour.

(iv) To rise above prejudices on religion, language, sex, caste or creed.

(v) To develop proper attitudes towards one's own self and fellow beings.

**Ways to integrate value education in the school curriculum:**

Curriculum must contain distinctive instructions for the values associated with each lesson. While on one hand, the teachers must explain those values to the students and encourage them to put the same into practice in their daily life; on the other hand, the value-based education should also be
featured in the co-curricular and extra-curricular activities. In this way, we can surely bring about a positive change in the overall attitude of our students towards learning as well as society. Besides integrating values in the provided curricula, the special assemblies and functions could be arranged to instill the vital importance of fair and descent values. This could also be combined with the regular activities in the sports ground and academic contests. Hence, on this note, the authors suggest some of the effective measures to be taken on the part of school as mentioned below:

1. There should be integrated approach in education programme. Instead of tackling piecemeal such as awareness of ecology, environmental problem, community development, productivity etc. they should be handled in a comprehensive manner under the broad spectrum of social responsibility and inner development of human personality.
2. The consciousness of values must permeate the whole curriculum (not just value course), formal or non-formal, starting with assembly, the curricular and co-curricular activities, the celebration of festivals, work experience, team games and sports, subject clubs, social service programmes etc.
3. All teachers should act as teachers of value education, whether they are formally involved or not in the programme.
4. The school atmosphere, the personality and behavior of teachers, the facilities provided in the school—all have a large say in developing a sense of values.
5. Interaction to appreciate and understand innovations and initiatives as voluntary efforts. Those working voluntarily for the deprived and the downtrodden could be invited.
6. Utilization of available folklore, national monuments, forms of folk culture etc. to imbibe a sense of belonging.
7. A certain credit may be assigned at the time of assignment for some of the values like honesty, social service etc.
8. All functions, programmes, celebrations, gatherings etc. need to ensure that no group or community feels neglected or isolated.
9. Inviting persons of character, creative abilities, literary tastes and scholarly activities whose mere presence could inspire children.
10. To make the school responsive to emergent situations like quake, floods, fire or droughts.
11. Visits to institutions, establishments, centres of creative arts, museums etc. and to homes for the aged, blind and handicapped not only enhance knowledge and understanding but also genuine appreciation and empathy.
12. The teachers should discuss among themselves, during lunch or recess, new incidents in schools that should form ‘case histories’ for value education programme based on real life situations.
13. To innovate new techniques and methods to understand changes taking place in the society. They need to be monitored and the value inculcation programme suitably modified.
14. Examples from social life of school and community that reinforce human aspects of individual efforts and group efforts need to be disseminated and discussed.
15. Cleanliness within school helps in the development of aesthetic sensibilities among students. They create lasting impressions.

16. Teachers, principals and other staff should take formal oath to the ethics of their profession like other professions.

In a nutshell it can be concluded that education without vision is waste, education without value is crime, and education without mission is life burden. A nation with atomic power is not a strong nation but a nation with people with strong character is indeed a strong nation. Human value is an academic behavior through which progress of individual, society, nation and international understanding are created. Aesthetic, spiritual, moral, ethical and social values are the values we need most at the dawn of the twenty-first century. Thus, our education should be based on these values. Other than keeping these basic values intact, there is a need to imbibe secular values like tolerance, self-respect, love for human dignity, respect and compassion for others, individual freedom and human rights, internationalism, rejection of cruelty, the practice of non-violence and the culture of peace, among students. Besides sustainable educational system, the special focus should be on inclusive growth with inclusive educational policies and programmes. It is through the inculcation of these different types of values that men of character, responsible citizens and sensitive personality of individuals can be established.

Martin Luther King well thought of the glory of a nation in the following words:

"The prosperity of a country depends not on the abundance of its revenues, not on the strength of its fortifications, nor on the beauty of its public buildings; but on its cultivated citizens, in its men of education, enlightenment and character".

Only a value based education can give our youth the heart to understand the feelings of others and a constant awareness to take care not to hurt or insult the hearts of others by words and actions. It is a value-based education only that can give our youth the altruistic and benevolent sense of living for others. Therefore, for the sustainable human development as well as for the social growth, there is a need of value based education, spiritual education, ethical education, as well as need based education. In the light of these evidences, it becomes essential for teachers, school, parents and society to apply moral values in order to overcome misconduct behavior among students (Nachiappan et al., 2012). Hence, there emerges an urgent need for the various educational institutions, local, national and international agencies to work together to make value-based education an essential component of educational programmes, so as to change the attitudes and behavior of the human race.
REFERENCES


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Challenges in Education and Emerging Issues in Education

Emerging Issues and Global & Indian Perspective
Introduction

Education is a powerful tool to progress but it has become a stressful area of life for both children and parents in the present era. The need to excel and emerge victorious is every parent's goal as much as it is for the child. The pressure to get good grades and to get a degree is very high for a student (Hirsch & Ellis, 1996). This overwhelming burden of information leaves a minimal opportunity to relax and recreate and sometimes leads to serious sleep deprivation among them (Lee & Graham, 2001; Firth-Cozens, 2001). Students mainly experience pressures from outside sources (such as family, friends, or school), but they can also come from within. Forces from the outside world impinging on the individual could be counted as 'stress'. Selye (1976) defined stress as a physiological non-specific re-action to external or internal demands. Stress is a state of mental or emotional strain or suspense, and also; a number of normal reactions of the body (mental, emotional, and physiological) designed for self-preservation (Princeton University, 2001). Despite its diffuse perception, most of the well-known definitions emphasize stress as any factor that threatens the health of an individual or has an adverse effect on the functioning of the body (Oxford Medical Publications, 1985). A reported increase in the student stress has been accepted as a disturbing trend in student health nationwide (Sax, 1997).

Personal and environmental events that cause stress are known as stressors (Lazarus, 1990). Stressors can be broadly defined as situations or...
events that have the potential to affect health outcomes (Barling, 1990). Therefore, stress can be defined simply as emotional disturbances or changes caused by stressors. Stress is seldom the result of a single cause, but is usually created by a number of stressors (Grobler et al., 2002). A student’s life is subjected to different kinds of stressors, such as the pressure of academics with an obligation of success, uncertain future and difficulties envisaged for integration into the system. Students face social, emotional, physical and family problems which may affect their learning ability and academic performance (Fish & Nies, 1996; Chew-Graham, Rogers & Yassin, 2003). It constitutes various stressors which may cause impaired judgement, reduced concentration, loss of self-esteem, increased anxiety and depression (Gisele, 2002). Talking about academic stressors, it includes the student’s perception of the extensive knowledge base required and the perception of an inadequate time to develop it (Carveth, Gesse, & Moss, 1996). On the same note, using the coping strategies effectively and appropriately will help the students in improving their stress level. Coping strategies are defined as the person’s constantly changing cognitive and behavioral efforts to manage specific external or internal demands that are appraised as taxing or exceeding the person's resources (Supe, 1998). There is a need to recognize stress on secondary school students, and strategies developed to improve it should be focused on both individual and situational factors (Brissie, Hoover-Demprey, & Bassler, 1988). Effective and appropriate coping strategies may buffer the impact of newly encountered stressful situations on mental and physical health (Park & Adler, 2003).

Sources of stress

The competition spirit is far exceeding the limits of endurance and reasonableness as more and more children feel stressed out and like a failure if they don’t get high grades, while the benchmark for high grades only keeps increasing. Even the best CBSE School or a top international school is primarily measured with the yardstick of its academic performance, or in other words, through ranks and such systems. There is no wrong in it; in fact this is the mark of how good the educational institution is as a choice. But the method in which education is imparted and the systems being implemented differs within each group of the so-called acclaimed institutions. What set apart the healthy mode of learning are the factors stressed upon during education. In addition, high achieving parents sometimes unwittingly add to the stress in children’s lives as they have great expectations for their children, who may lack their parents’ motivation or capabilities. With added emphasis on the importance of standardized testing in the schools students have additional stress placed upon them to excel academically.
Students report experiencing academic stress at predictable times each semester with the greatest sources of academic stress resulting from taking and studying for exams, grade competition, the large amount of content to master in a small amount of time, the need to adapt to new learning environments in terms of the increased complexity of the material to be learned and the greater time and effort required to do so; and the need to constantly self-regulate and to develop better thinking skills, including learning to use specific learning techniques (Abouserie, 1994; Archer & Lamnin, 1985; Britton & Tesser, 1991; Kohn & Frazer, 1986). Archer and Lamnin (1985) found that tests, grades, competition, time demands, professors and the class environment, and concern about future careers were major sources of academic stress. Finally, there are financial pressures and other technical difficulties (Kariv & Heiman, 2005). Also, there are other important sources of stress, which included homework, assignments and uncomfortable classrooms (Kohn & Frozer, 1986). In addition to academic requirements, relationships with fellow students and time pressure may also be sources of stress (Sgan-Cohen & Lowental, 1988). Relationships with family and friends, eating and sleeping habits and loneliness may affect some students on an average (Shah et al., 2009; Wright, 1967).

Stress and Coping Strategies among Students

Stress can lead to disruptions in both physical and mental health. Stress reduction and adopting a healthier life style have been major concerns of the students (Mundt, 1996). Students revert to different coping strategies, harmful as well as constructive. Methods to reduce stress by students often include effective time management, social support, positive reappraisal, and engagement in leisure pursuits (Blake & Vandiver, 1988; Mattlin, Wethington, & Kessler, 1990). Anxiety reduction and time management in conjunction with leisure activities may be an effective strategy for reducing academic stress (Misra & McKean, 2000). The only scientific research that specifically related leisure satisfaction to academic stress was that of Ragheb and McKinney (1993), who established a negative association between academic stress and leisure satisfaction. Academic stress in Kadivar, Shokri & Daneshvarpour study (2007) showed a negative relationship with task-oriented coping style and positive relationships with emotion-oriented and avoidant coping styles. Stepwise regression analysis showed that academic stress, task-oriented coping style, emotion-oriented coping style, and avoidant coping style respectively accounted for 9%, 3%, 2% and 1% the variance in academic achievement. More precisely, the relationship between academic stress and academic achievement is influenced only by task-oriented and emotion-oriented coping styles. In terms of stress management, Lazarus and Folkman (1984) defined eight separate coping strategies that they believed individuals employed in stressful situations. These are confrontation, seeking social support, planned problem-
solving, self-control, accepting responsibility, distancing, positive reappraisal, and escape/avoidance. Students involved in Redhwan et al. (2009) study identified other coping strategies such as shouting, singing, time management, dancing, crying, massage, vacation, shopping, drinking a lot of water, watch cartons or comedies, eat chocolates, psychological treatment, optimistic thinking, and breathing.

Role of Parents

Children begin to experience stress at a very early age, and they are often more vulnerable to stress than adults because they have not yet learned effective ways to cope with it. As children get older, academic and social pressures create stress. Parents should, therefore, begin helping their children acquire the skills necessary to effectively cope with stress while their children are young. In my opinion, parents can help ease their teens' academic stress in following ways:

- Be interested and available to help with schoolwork.
- Making sure the child is eating healthy and getting adequate sleep. Sleep is an essential factor in memory development, and on average teens need approximately 9 hours of sleep.
- Asking questions and showing them that their parents want to be involved in their lives. By asking questions they create the space for their child to express what he or she is experiencing. Once students verbalize some of the stress they are feeling, they may be able to approach their school work with a clearer mind.
- Making validating statements such as, “Wow it must really be tough to do all the work you are doing,” “If I was you and I had as much work as you do, I would feel stressed out too,” “I really give you credit for everything you take on.” Students need to hear that it is okay to feel the way they feel.
- Encouraging the child to think positively and use positive self-talk. The best ways to distress a child is by maintaining a good repo with him/her, understanding their needs and wants.
- Helping the child develop a daily academic routine at home. Fix a leisure time for them, even during examinations like a walk in the park or talking to friends or even some exercising.
- While some children need concrete specific expectations to help motivate them, most of them need only the reassurance from their parents that if he or she works to the best of their ability then the parents will be proud. So it is essential for parents to discuss their own expectations with their children. Every child has relative academic strengths and weaknesses in certain areas and parents need to recognize the ease and encourage and nurture their child’s strengths.
• Assisting the child with effective time management strategies: Effective time management is a key approach to preventing avoidable stress which helps them to anticipate their peak stress times and clear their schedule as much as possible to be able to focus on the most important assignments, exams and other schoolwork. Moreover, suggesting them to keep a to do list of their tasks and do them in order of priority; thus, helping in making them stay organized.

Strategies for Stress Management

Effective time management is just one of the many ways to keep from succumbing to stress overload. In my view, some of the ways of stress management for students could be:

• Associating with people they enjoy with and those support them.
• Learning and practicing relaxation or meditation skills, along with engaging in a vigorous physical exercise that is convenient and pleasurable to them.
• Never letting one particular thing dominate them, such as school work, relationships, sports, career aspiration, etc.
• Changing their attitude about life and viewing life as challenges to seek, not obstacles to avoid.
• Feeling themselves responsible for their lives and their feelings, but never blaming them.
• Maintaining a reasonable diet and sane sleep habits.
• Avoiding the use of sleeping pills, tranquilizers, and other drugs to control stress.
• Surrounding themselves with cues from positive thoughts and relaxation.
• When worries start to build up, they should talk to someone to lighten up themselves, or open themselves to new experiences, try new things, new foods, and new places.
• Protecting the personal freedom and space of students would help them a lot. They should feel free to do what they want and feel, but doing so, respect the rights of others too.
• Students should be competent enough in taking action to change rather than trying to avoid the problem. They should not drift along in troublesome and stressful situations or relationships, as taking chances is the key to emotional well-being.

Conclusion

As their parents and mentors it is our duty to see that a child is free from all anxieties no matter its related to examination. Children should be treated
with respect as growing individuals and not as high-score brewing machines. Their unique talents or inclinations to a healthy and creative aspect of one’s personality has to be appreciated and allowed to be developed. They should work hard and streamline their study material in such a manner that it does not put pressure on them in the end. Providing students with meaningful programs that assist in recognizing stress and identifying effective stress management strategies and also building programs about how to manage time will be important. Different stress management techniques such as meditation, support groups, games etc., help in better adoption of coping skills, improved knowledge of stress and enhanced ability to resolve conflicts (Shapiro et al., 2000). ‘Stress management’ and ‘Time management’ taught as a part of their curriculum may assist students in dealing with stress due to study loads (Lee & Graham, 2001). Health education programs, mentorship and extracurricular activities can be important strategies to enable secondary students cope better with the demands of education.

References


