CHAPTER TWO

REVIEW OF RELATED LITERATURE
This chapter carries a review of the previous related literature. A general look at the definitions and prevalence of teacher stress are followed by a review of studies representing each domain of variables, namely, demographic, personality, attitudinal and environmental. The findings of these studies are summarized at the end of this review. The last section in this chapter lists the hypotheses.

II(i) Occupational Teacher Stress

Perceived teacher stress is a type of occupational stress. Though a lot of research work has been done on this problem during the last two decades (Gmelch, 1988), yet the term 'stress' has belied a universally agreed definition (Cohon, 1967). Lack of consensus on its definition has led researchers to "either look towards constructing new definitions, with problems relating to others' work" (Trendall, 1987) or they "continue to use the term in some generic sense" (Duckworth, 1985). It has also resulted in a proliferation of labels for similar symptoms as 'work stress' (Warr and Wall, 1975), 'industrial stress' (Buzzard, 1973), 'job stress' (Caplan et al., 1975), and 'job pressure' (Buck, 1972), which only serve to add to the conceptual confusion surrounding this area of research.

Sampled below are a few definitions of stress.

Warr and Wall (1975) have defined stress in general in terms of an individual's experience of tension, anxiety, fear, discomfort and associated psychological disorders, resulting from aspects of the work situation, which depart from the optimum (either too little or too much work). This is very much in line with Selye's (1956, 1976) view of stress - a variation from one's state of being in 'eustress', which is
marked by a non-specific response of the body to any demand made on it to adapt. Warr and Wall (1975) seem to rely heavily on the physiological model of stress as they appear to overlook the notion of discrepancy between 'demands and the ability to cope'.

To Trendall (1987), stress is "a multi-factorial concept referring to the contribution of factors within the individual, the organisation and wider society which lead to lowering of feelings of personal self-worth, or achievement, of effectiveness and of coping within one's professional role". She even prefers to use the phrase 'stress in teaching' as "it puts more emphasis than the phrase 'teacher stress' on the notion that effects or symptoms occur to individuals in particular situations".

Okebukola and Jegede (1989) define occupational stress 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".

Many other authors (Beehr and Newman, 1978; Cox, 1977; Daley, 1979; Johnson and Johnson, 1979; McGrath, 1970) maintain that stress is the condition resulting from a perceived imbalance between situational demands and one's capability to respond to such demands. These demands may have internal and/or external origins. In other words, the cause of stress may be in the work we do or even within us as individuals. In reality, however, stress is the interactive result of the situational demands and the psycho-physiological responses of the individual.
Chandler (1976) defines stress as "a mental and/or somatic dysfunctioning in one teacher due to one or more agents in the school setting perceived to be threatening to the extent that the teacher actively employed one or more coping devices for relief".

By far, as D'Arcy (1989) remarks, the most frequently quoted definition of teacher stress is the one proposed by Kyriacou and Sutcliffe (1978a). According to them, teacher stress is "a response syndrome of negative effect (such as anger or depression) by a teacher usually accompanied by potentially pathogenic physiological and biochemical changes (such as increased heart rate or release of adreno-corticotrophic hormones into the blood stream) resulting from aspects of the teacher's job and mediated by the perception that the demands made upon the teacher continue as a threat to his self-esteem or well-being and by coping mechanisms activated to reduce the perceived threat" (p. 2).

This definition, as Borg (1990) observes, conceptualizes teacher stress as negative and potentially harmful to teacher's health. The key element in the definition is the teacher's perception of threat based on the following three aspects of his job and circumstances: (i) that demands are being made on him; (ii) that he is unable to meet or has difficulty in meeting these demands; and (iii) that failure to meet these demands threatens his mental/physical well being. The present investigator fully agrees with the definition given by Kyriacou and Sutcliffe (1978a) as it is comprehensive and covers all aspects of stress.

But how does stress come about?

An environmental demand by itself may not produce stress unless the individual subjectively feels he is unable to cope. Stress is,
infact, the result of an imbalance between the perceived (subjective) demand and perceived response capability. As Arnold (1967) opines, that it is impossible to talk of psychological stress without giving attention to subjective evaluation. "What is stress for one man may be a welcome challenge for another" (Arnold, 1967, p. 124). Perceptions, indeed, play a crucial role in the process of stress. To a majority of people, the very sight of a snake is enough to give shivers up one's spine while the adept is hardly bothered. Since the latter knows how to handle a snake, his response is altogether different. Obviously, perceptions are the product of past experience. Likewise, a class of little overactive 15 year olds, for example, may be a real threat to a probationer; it may not be so to an experienced hand who would know how to properly harness their potential energy.

In most of the models of stress (Claxton, 1989; Kyriacou and Sutcliffe, 1978a; Leach, 1984; Worrall and May, 1989) the role of the teachers' perceptions of their circumstances and the degree of control they perceive they have over them seem to be widely acknowledged as crucial (Kyriacou and Sutcliffe, 1978a, 1979; Phillips and Lee, 1980; Payne and Fletcher, 1983; Tellenback et al., 1983; Worrall and May, 1989).

Now the question arises: What does the related literature say about the state of teacher stress? Is teaching really stressful?

indicates that "school teachers have one of the lowest death rates among the 17 professions listed". A majority of previous studies, however, report that not only that teachers suffer from stress more than other professionals but also that there has been a steady increase in their stress levels.

"If the National Union of Teachers in the U.K. were to be believed, "Occupational stress is now very much greater for the vast majority of teachers than for most of other professions" (NUT, 1990). "Well, is that surprising, coming from a union?", a cynic might remark. But similar views have been echoed even by researchers (Carter, 1987). Kyriacou and Sutcliffe (1978b, 1979a, 1979b) found 25 per cent of the teachers sampled rating being a teacher as very or extremely stressful. Kyriacou (1987) reports: "... when compared with other professions, teaching is rated as one of the high stress occupations". Similar results have also been reported elsewhere (SSTUWA, 1982; Dunham, 1976).

Pratt's (1976) results showed that 60.4 per cent of the 227 school teachers in the cohort, as compared to 51.1 per cent of 311 'other professions' surveyed, reported some or severe strain. Likewise, Hawkes and Dedrick (1983) reported that 90 per cent of the teachers they surveyed indicated some level of stress in their work.

Cox et al. (1978) reported the results of a comparative study of stress in 100 school teachers and 100 semi-professionals (matched for sex, age and marital status). The study revealed that 79 per cent of the school teachers, as compared to 38 per cent of the group of semi-professionals mentioned their work as the basic cause. Almost identical results were reported by Cox and Brockley (1984) wherein the authors conclude: "Work appears as a major source of stress for working
people, with teachers appearing to experience more stress through work than non-teachers" (p. 84).

The empirical findings briefly reviewed above leave little doubt as to the teachers being an occupational group working under greater stress than many other professionals. This is mainly because:

i) teachers have to perform constantly under the watchful eyes of their pupils;

ii) they have increasing work loads;

iii) they are doing a job that people in industry perform for twice the salary of a teacher;

iv) their self-worth is constantly under attack from all sides - public, employers and pupils;

v) they have to play many roles, like that of an understanding parent to his students, a motivating guide, a loyal employee, and so on (Kyriacou, 1987); and

vi) teachers are made to look at their job as a mission rather than profession - it puts a moral pressure for any default.

It will be noted, however, that the almost universal prevalence of teacher stress has not been verified by the incidence of mental and physical illness (Bentz et al., 1971; Callinghan et al., 1971; Cox et al., 1978; Kyriacou, 1980). There may be three possible reasons for this discrepancy: one, that teachers are a particularly articulate group of professionals such that they are able to define and discuss their findings and perceptions of work more easily than many other occupational groups (Borg, 1990); two, that teachers do, in fact, experience greater stress but that factors such as the length of school holidays and the presence of support in the form of colleagues with whom one can discuss one's problems and seek advice serve to mitigate the extent to which the stress they experience actually precipitates ill health; and, three, that
teachers are prone to complaining about stress in excess of their actual experience of it (Kyriacou, 1980).

II(ii) Teacher Stress and Demographic Variables

A review of the five demographic variables taken up in this study follows.

a) Teachers stress and age

Relationships between perceived teacher stress and age has been looked at by many researchers. Findings have been conflicting, some even contradictory.

In the studies conducted by Blanton (1985), Holt (1985) and Alexander et al., (1983), younger teachers were reportedly found working under greater strain. But in a study of 234 teachers conducted by Donald (1988), it was the teachers in the 'middle range of age' who suffered most, thus, giving an inverted U-shaped relationship between stress and age. Contradicting all these, Harris et al., (1985) and Chavarria-Navas (1988) found older teachers experiencing more stress than their younger colleagues. In yet another contradiction, Bambach (1987), Foxworth and Karnes (1983), Kyriacou and Sutcliffe (1979) and Trendall (1989) report no relationship, whatsoever, between teacher stress and age.

So, all in all, previous studies have failed to establish any definitive relationship between teacher stress and age.

b) Teacher stress and sex

Previous studies concerning the relationship between teacher stress and sex have produced conflicting results. Foxworth and Karnes (1983), Gasser (1985) and Harris et al. (1985) found no sex differences
in teacher stress. On the other hand, Blanton (1985) and Long and Gessaroli (1989) found male teachers significantly more stressed than their female colleagues. However, the overwhelming research evidence so far has shown female teachers suffering greater stress than male teachers.

Chance (1985) noted the female teachers identified ten factors significantly causing greater stress for them than for their male colleagues. Murphy (1986) found female teachers experiencing more stress than males in the area of time management, and even reported high scores of physical symptoms of stress in teacher/teacher relations. Okebukola and Jegede (1989), in their study of 1024 teachers in Nigeria, representing urban and rural areas, new and old schools, and single sex and coeducational schools, report higher stress scores of female teachers as compared to their male colleagues. Similar results were reported by Simmons (1988).

So, on the whole, though the relationship between teacher stress and sex is far from being finally established yet female teachers tend to report greater levels of stress.

Teacher stress and teaching experience

Previous studies have produced inconclusive findings on the relationship between teacher stress and the length of teaching experience. The findings range from a positive association between the two variables, through no association, to a negative one.

Borg and Falzon (1989) conducted a study in Malta on 844 primary school teachers. In this study, a direct relationship between length of teaching experience and the degree of stress was reported.
Teachers with more than 20 years experience found teaching significantly more stressful than those who had been teaching for 11-20 years, and significantly more so than those with less than 11 years experience. This may be the result of greater professional responsibilities which automatically accompany the seniority in service. However, findings reported by Holt (1985) and Chavarria-Navas (1988) say otherwise. In their studies it was the younger teachers who suffered more. In a study conducted by Okebukola and Jegede (1989), inexperienced teachers were found under greater stress than the experienced ones.

Some studies (Foxworth and Karnes, 1983; Kass, 1985; Kyriacou and Sutcliffe, 1979; Trendall, 1989) have found no association at all between teacher stress and teaching experience. In a very recent study on the effects of teaching experience and grade level taught on teacher stress, Malik et al., (1991) found that "teaching experience did not account for a significant portion of the variance in the dependent variable", that is, teacher stress. In yet another contradiction, Capel (1987) found teacher stress negatively related with 'years at present position' and positively related with 'total teaching experience'.

Finally, Blanton's (1985) study revealed a U-shaped relationship between teacher stress and teaching experience. A teacher working under the highest level of stress was the one who had been teaching for 0-3 years or 10-19 years, thus, revealing a U-shaped relationship between the two variables. However, Donald (1988) reported that it was the teachers with the 'middle range of teaching experience' who experienced greater stress than other groups, thus, giving an inverted U-shaped relationship between the two variables.
So, on the whole, findings on the relationship between teacher stress and teaching experience are inconclusive.

d) Teacher stress and marital status

Whether or not being married has any bearing on the level of stress felt is a moot point. It could be argued that being married and having children bring in more responsibilities which might exacerbate an already stressful situation and hamper one's professional effectiveness. Equally, it could not be denied that being married and having a family act as a 'safety valve' and release some of the stress effects experienced at job, thus, enabling one to cope with stressful situations more successfully, and perform one's duties more effectively.

Not many researchers have looked at the relationship between teacher stress and marital status. In their study, Okebukola and Jegede (1989) found single teachers (of both sexes) more stressed as compared to married ones. Likewise, Tupe (1986) found "differential levels of stress across selected levels of key demographic variables, such as age, sex, marital status, race ...". Long and Gessarole (1989) also found unmarried teachers experiencing greater stress than their married colleagues.

However, the relationship between teacher stress and marital status is yet to be conclusively established.

e) Teacher stress and educational qualifications

The very few studies done on the relationship between teacher stress and educational qualification have produced conflicting results.

Blanton (1985) found 'trained and certified' teachers suffering greater stress. Okebukola and Jegede (1989) reported higher levels of stress shown by untrained graduates. Donald (1985), on the other hand,
found it was the 'middle range of educational level' which suffered greater stress. In Gasser's (1985) study, 'higher levels of training' was found associated with higher levels of stress. Some studies (Foxworth and Karnes, 1983; Kyriacou and Sutcliffe, 1985; Trendall, 1989) report no association between teacher stress and educational qualification.

So, summing up: Previous studies have produced conflicting and inconclusive results regarding the relationship between teacher stress and educational qualification.

II(iii) Teacher Stress and Personality Variables

Everybody seems to know and understand what the word 'personality' means, but one is hard put when it is to be defined in clear, concise and unambiguous terms. No wonder the term carries many interpretations.

Allport (1937) defines it as "the dynamic organization within the individual of those psychological systems that determine his unique adjustment to his environment". The word dynamic in this definition implies that personality is undergoing a constant change in response to environment scenario of events but still remains organized. The word 'determine' lays emphasis on the psychological system that activates the organism for action.

Personality, according to Cattell (1956), "... is that which permits a prediction of what a person will do in a given situation". "It is", Cattell continues, "concerned with all the behaviour of the individual, both over and under the skin".

Eysenck (1960) defines personality "as more or less stable and enduring organization of a person's character, temperament, intellect and physique which determines his unique adjustment to the environment".
According to Guilford (1959), "An individual's personality is his unique pattern of traits.... A trait is any distinguishable, relatively enduring way in which one individual differs from another". This implies that traits are not absolute. For example, if an individual is 'extrovert', he is so in comparison with others who are at the lower rung of that scale.

Good (1959) defines personality as "the total psychological and social reactions of an individual; the synthesis of his subjective, emotional and mental life, his behaviour, and his reactions to the environment; the unique or individual traits of a person are connoted to a lesser degree by personality than by the term character".

One common thread passing through the definitions of personality given above is one's reactions and adjustment to any environmental changes which always present themselves as a kaleidoscopic stimuli to the individual. Some pose as stressors while others do not. The knowledge of which type of personality is more prone to job stress could be of immense value to all concerned with the education of the child. More so to the teacher himself whose "personality traits may help us predict how people react to stressful situations, and how they cope with them" (Janis, 1971, p. 5).

Underscoring the importance of personality characteristics in explaining away the individual differences in stress, Kyriacou and Sutcliffe (1978b) remarked : "... it may well be the case that in investigating the relationship between stressors and stress, the personality characteristics rather than biographical characteristics of the individual may be the more important determinant of individual
differences in teacher stress". It is even considered as a 'goodness of fit' between job demands and personality abilities that determine the amount of stress maintained (French and Caplan, 1972).

Not many studies have been attracted to explore the relationship between teacher stress and teacher personality. "... two factors have made such research difficult; first, that teachers are in part a self-selecting group of those who choose to enter the profession, and secondly, that those teachers currently in post represent a survival population of those who have remained as a result of complex set of factors" (Kyriacou, 1987). "Self selection occurs when the members of the group being studied are in the group, in part, because they differently possess traits or characteristics that possibly influence or are otherwise related to the variables of the research problem" (Kerlinger, 1973, p. 381). However, these two factors may not be universally valid. As to the first, it may be argued that teachers are not the only self-selecting group. Moreover, self-selecting may not hinder the inclusion of a group for research purposes. Only that the investigator cannot establish any causal relationship. As for the second, this is even less relevant in India where anyone joining the teaching profession is likely to stick to it (out of sheer necessity for a job, if nothing else) as long as he possibly can. Indeed, many even try to have their retirement postponed.

a) **Teacher stress and locus of control**

Way back in 1966, Rotter developed an instrument to measure an aspect of one's personality which has since been known as 'Internal-External' locus of control. The scale measures an individual's tendency to regard reinforcement as internally (for example, due to one's ability
or effort) and externally (due to chance or any other factor outside oneself) controlled. People who have internal locus of control tend to believe they are responsible for what happens to them, that 'they are the captain of their life's ship'. People who have an external locus of control, tend to believe that they are helpless victims of chance, fate, or other people.

Having an internal locus of control has been found related to self-esteem. Feeling that you are in control of your life is conducive to a sense of self-worth, competence and well-being (Wade and Tavris, 1987).

Previous research shows that, compared to those with an external locus of control, people with an internal locus of control have greater life satisfaction, activity and good health, to cope better and have less perceived risk (Lumokin, 1985), and more confidence in themselves (Becker, 1987). An increasing external locus of control orientation has also been found associated with increased perceptions of burnout (McIntyre, 1984). It will be noted that burnout is the result of unremitted stress; the two are on the same continuum.

External locus of control has also been reportedly found positively related with anxiety (Allen et al., 1974; Bar-Tal et al., 1980; Watson, 1967). Conceivably, perception of lack of control over one's environment induces a certain amount of anxiety. This anxiety may be bolstered by the external's tendency to perceive external controlling forces as malevolent and untrustworthy to a greater extent than the internal's tendency (e.g., Lamont, 1972; Levenson Mahler, 1975).
Claxton (1989) and Kyriacou (1990) argue that the experience of teacher stress is triggered by a teacher's perceptions of his situation as threatening. Secondly, the nature of job demands and what constitutes a satisfactory standard of meeting these job demands may be largely imposed by others or largely imposed by the teacher himself (or a combination of the two). When the job demands are imposed by others, stress is particularly likely to occur to them. Past research indicates that teachers with a personality disposition towards seeing life events as generally outside their control report higher levels of stress (Kyriacou, 1987), lending support to a significantly positive relationship between teacher stress and external locus of control. The truth of this relationship has been borne out by many studies.

Capel (1987) conducted a study to investigate the relationship between stress and burnout and selected psychological, organizational and demographic variables in secondary school teachers. A regression analysis of the data revealed that locus of control was the best prediction of stress, as its external orientation was associated with higher stress. Likewise, in the study of 130 full time teachers conducted by Halpin et al., (1985), locus of control was related to teacher stress. Similar results have been reported by Bar-Tal et al. (1980).

In another study, conducted by Holt (1985), of the 134 regular and special education teachers, those with high level of occupational stress indicated a more external locus of control.

Kyriacou and Sutcliffe (1979b) conducted a questionnaire survey of 130 comprehensive school teachers in England. The occupational stress of teachers as indicated by a self-report measure, was positively
associated with the Ss' generalised belief in external control reinforcement. These findings have been verified even in a population of elementary school principals (Raith, 1988).

Sadowski et al. (1986) report a significant negative correlation between internal locus of control and perceived teacher stress. Results also indicated that internally-oriented student teachers could more adequately cope with the demands and stresses of preservice teachers. Similar results have been reported by McIntyre (1984), Shapiro (1987) and Son (1986).

Studies conducted in different countries (Bar-Tal et al., 1980 in Israel; Halpin et al., in the U.S.A.; Kyriacou and Sutcliffe, 1979b in the U.K.; and, Son, 1986 in Singapore) come to the same unambiguous conclusion that there is a significant positive relationship between perceived teacher stress and teacher's external locus of control.

b) Teacher stress and trait-anxiety

Spielberger (1966) has developed a 'Trait-State' conception of anxiety which is designed to distinguish between trait-anxiety - a relatively stable trait, the disposition to respond anxiously, and state-anxiety - fluctuating across time, which is experienced in a given situation.

"Trait-anxiety is dispositional in nature, is construed to be a proneness to be anxious, is primarily a function of past experience and has an internalized (intra-psychic) locus; while state-anxiety is situational in nature, is directly a function of stressful conditions and has a contemporary locus. Moreover, these two variables interact in a manner such that anxiety proneness influences the extent of the anxiety reaction" (Phillips et al., 1972).
Research shows neurotics (Consalves and Con, 1983) and females (Arora, 1978; Chatterjee et al., 1976; Choksi, 1976; Satyarthi, 1979; Spielberger et al., 1973) as having higher anxiety levels than their respective counterparts.

"Persons who are high in A-Trait, for example, psychoneurotics, are disposed to perceive the world as more dangerous or threatening than low A-Trait individuals. Consequently, high A-Trait individuals are vulnerable to stress and tend to experience A-State reactions of greater intensity and with greater frequency over time than persons who are low in A-Trait" (Spielberger, 1972, p. 482).

There is a fairly close relationship between anxiety and stress. Anxiety is elicited by psychological stress, and stress is reflected in threatened deprivation of an anticipated satisfaction. In addition, uncertainty associated with external (environmental) and internal (cognitive) factors is a key ingredient in whether an anxiety reaction to stressful conditions occurs. In reality, however, in both anxiety and stress, an individual's reaction is usually the result of an interaction effect of environmental and cognitive factors.

Trait-anxiety influences the stress response of an individual. An individual high on trait-anxiety has a low threshold. He is already 'primed', so to say, for experiencing occupational stress. As such he needs very little environmental stimulation before his whole being is involved.

The above line of argument leads one to expect a significant positive relationship between perceived teacher stress and trait-anxiety. This, indeed, is the result reported by Simmons (1988) whose findings
are based on the data collected from 162 college instructors. No such study on school teachers has been reportedly done.

c) **Teacher stress and neuroticism**

Personality research in the U.K. has crystallized into two main traits namely neuroticism and extraversion (Eysenck, 1960).

Neuroticism is a major domain of personality that contrasts adjustment or emotional stability with maladjustment or negative emotionality (Clark, 1984; Costa and McCrae, 1985; Eysenck and Eysenck, 1975).

"Neuroticism includes anxiety, hostility and impulsiveness. Neurotic individuals are complainers and defeatists. They complain about different things at different ages but they are always ready to see the sour side of life and none of its sweetness" (Wade and Tavris, 1987, p. 417).

Neuroticism is closely related to trait-anxiety (Spielberger, 1972) which in itself has been found related to teacher stress (Simmons, 1988). Syllogistically, a positive relationship between neuroticism and stress may be expected. Indeed, such is the finding reported by Wilson and Mutero (1989), both for males and females. A longitudinal study done on Dutch adult population reported that earlier neuroticism had a strong direct and moderate indirect effect on psychological stress (Ormel and Wohlfarth, 1991). The authors conclude: "These findings suggest that temperamental dispositions are more powerful than environmental factors in predicting psychological stress". The researcher has not found any previous study on the relationship between teacher stress and neuroticism involving school teachers.
d) Teacher stress and extraversion

According to Eysenck (1964), a typical extravert is social, good mixer; he needs to have people to talk to, loves excitement, is generally impulsive and carefree, easy going, optimistic, likes to laugh and be merry. A typical introvert, on the other hand, is quiet, retiring sort of a person, introspective, fond of books rather than people; he is reserved and has few intimate friends.

Extraversion-introversion has a sex bias. Men generally lead in group activities, are slow, deliberate in movement, over-conscientious, inclined to stop and think over things before acting; tend to organize things on their own initiative, like to take on new and important responsibilities, and seek to avoid troublesome situations. Women are opposite on all these points. They are more introverted than men.

In terms of the arousal theory, the extroverts are under-aroused while introverts are chronically aroused (Lynn and Butler, 1962). Because of their low arousal level (high arousal threshold), extroverts require more environmental stimulation than introverts. This has a direct bearing on perceived teacher stress. An introvert teacher, for example, may perceive a situation threatening, thus, considering it a source of stress for him, long before his extrovert counterpart even give attention to it. Extroverts, being out-going and more social, involving interpersonal relationship should feel more at ease in the teaching profession, and in consequence suffer less from stress. This may result in a negative relationship between extraversion and teacher stress.
Only one previous study (Wilson and Mutero, 1989) reports extraversion as a correlate of teacher stress. The relationship, however, is far from an established one yet.

II(iv) Teacher Stress and Attitudinal Variables

Teacher morale and job satisfaction are the two attitudinal variables taken up in this study to explore their relationship with perceived teacher stress.

a) Teacher stress and teacher morale

Morale "is closely linked to organizational survival and to productivity; it is more than something 'nice to have'. If the education system of a nation is to be given full justice, positive steps must be taken to improve the morale of teachers" (Andrew et al., 1985). It is an indicator of organizational health and progress of a school. "There is even a positive correlation between high student achievement and high teacher morale" (Andrew et al., 1935; Dekhtawala, 1977). Where morale is high, individuals and groups keep on working in spite of the most adverse conditions; teachers have more satisfactory relationships with their principal and indicate great overall satisfaction with teaching (Livelie, 1981). Where morale is low, efforts slacken, inefficiency creeps in and courage suffers. In short, the overall efficiency of a school depends upon the teachers' morale working therein.

Like many other social sciences' concepts, 'morale' has also defied a clearcut definition which could carry the same meaning for every interpreter.

Most of these definitions attach greater importance to the fulfilment of a group's goals rather than an individual's motives. For example, Webster's New World Dictionary defines it as the "moral or
mental confidence, enthusiasm, willingness to endure hardship etc., within a group, in relation to a group or within an individual”. Hughes (1957) calls it even the "state of mind or attitude that the members of service enter towards their work and the organization to which they belong". Khanna (1959) goes a step further. He defines it as "the readiness of a group of persons to work enthusiastically and persistently for furthering the purposes and achieving the objectives of the organization in which they are employed".

Smith (1966) gives a more balanced view. He defines morale as "a forward looking and confident state of mind relevant to a shared and vital purpose" (p. 145). However, in addition to the shared purpose, "there are other important components such as sense of belonging, challenge, shared excitement and shared danger or discomfort" (Andrew et al., 1985, p. 7).

Halpin (1966), underlining the multi-faceted composition of morale, holds the view that high morale in respect of one component does not necessarily mean high morale in respect of another. Furthermore, there is no necessary relationship between high morale and high productivity. Even where there is one, it is extremely difficult to establish a causal relationship.

Taking a rather narrow view Vitelis (1953) defines morale as "an attitude of satisfaction with desire to continue and willingness to survive for the goals of a particular group or organization" (p. 12). Vitelis seems to suggest that the greater the subordination of individual needs and goals to the group, the better the morale of the organization. The veracity of this argument is suspect. Too much "subordination of individual goals and needs to organizational purposes generally leads to
depression or ... burnout" (Andrew et al., 1985, p. 8). Nearly three and a half decades ago, Whyte (1956) identified the candidates for burnout as the ones "who have left home, spiritually as well as physically, to take the vows of organization's life" (p. 3). Recently, Freudenberger (1980) also maintains that prime candidates for burnout are those who are over-committed and over-dedicated to some organizational goal ...". This is very much true of teachers and others in the helping professions who "are often asked to sublimate their needs to meet the socially imposed goals of being helpful and self-sacrificing" (Herzberg, 1976).

In respect of education, morale concerns the mental or emotional attitudes of teachers towards the components of their job. It takes into account the atmosphere in which they work and their individual orientation towards their work. It depends on the democratic relationships achieved cooperatively by the principal and his staff. When staff members realize that they have opportunity for professional growth and advancement, morale is generally high.

Bentley and Rempell (1980) define morale as "the professional interest and enthusiasm that a person displays towards achievement of individual and group goals in a given job situation" (p. 2). This definition recognizes the satisfaction of both the individual and organizational needs. The investigator fully agrees with this definition of morale which refers to the professional interest and enthusiasm that a person displays towards the achievement of individual and group goals in a given situation.
The reason why teacher morale has been included in this study is that it is one of the key ingredients required for the successful implementation of any school programme. A teacher with high morale is most likely to be more devoted to his job than the one with low morale. He may be less disturbed by any frustrating experience. His morale may prove as a moderator in his perceptions of a situation in terms of its stress evoking potentiality. This, indeed, is the finding reported by Shonfeld (1990) who examined the links between job related stressors and morale in 67 New York City teachers. The level of job strain was closely related to low morale. Apart from this, the investigator has found no other previous study on the relationship between teacher stress and teacher morale.

b) Teacher stress and teacher job satisfaction

As in any other profession, the significance of job satisfaction in teaching can hardly be over-emphasized. And, the fact that a professionally satisfied teacher is more efficient (Lavingia, 1974), more effective (Mutha, 1983), and better disposed to adopt innovations (Gulati, 1983) than a dissatisfied one, makes its study all the more important in a school situation.

Job satisfaction, as the most widely studied aspect of organizational behaviour "has remained a relatively elusive concept" (Neumann et al., 1988). Different scholars have viewed it from different perspectives.

Locke (1957) considers it as "... the pleasurable emotional state resulting from the perception of one's job as fulfilling or allowing the fulfilment of one's important job values providing these values are compatible with one's needs".
To Bensen (1983), it means a teacher's willingness to remain in his present school despite minor inducements to leave. This, rather narrow viewpoint on job satisfaction, may be true of western countries where schools are more or less autonomous organizations, and where there are greater job opportunities. It has little relevance to the Indian school system where a teacher in a government school has no free will to go to another school unless under transfer on 'administrative grounds' nor could it hold true for a teacher working in a private school who can hardly afford to leave his job for the sheer economic reasons.

According to Miskel et al. (1979), teacher job satisfaction is overall effective orientation teachers have towards their work and school.

Dixit (1985) gives a fairly comprehensive definition. He opines that "Job satisfaction is an attitude which results from a balanced summation of many positive and negative experiences in connection with the job. A worker may like certain aspects of his work yet thoroughly dislike others.... The feeling of an individual about various aspects of his job are not absolute but relative to the alternatives available". The investigator is inclined to agree with the definition.

Job satisfaction has been included in the present study on teacher stress as both are internal variables, and both are anchored in an individual teacher's perceptions. Perceptions, as is well known, are nothing but subjective judgements on persons, situations, events, and the like. Unaware of the objective realities, a teacher may find a situation frustrating and stressful. This may, in turn, influence his perceptions of his contemporary job assignment in terms of job satisfaction. It
cannot be denied that his job satisfaction may also determine whether or not he finds the job stressful. So a causal relationship between the two variables may be difficult to establish. But at the same time, a close association between them may also not be discounted, especially when many studies have found job satisfaction as a strong correlate of perceived teacher stress.

Sutten and Huberty (1984) examined teacher stress and job satisfaction of 10 special education and 10 regular teachers, and found the two inversely related. Their findings are partly supported by Santangelo and Lester (1985). In the case of females only, job dissatisfaction was found related to subjectively perceived stress.

In a study conducted in Costa Rica by Chararria-Navas (1988), job stress and job satisfaction showed moderate but significant negative correlations.

Kyriacou and Sutcliffe (1979a), on the basis of their study of teachers from 16 medium-sized comprehensive schools in England, found the self-reported stress as negatively associated with job satisfaction. These results were verified by similar correlations between job satisfaction and 14 sources of stress. Similar results are also reported by Similansky (1984), Holdaway (1978), and Wolpin (1988).

Some authors (Galloway et al., 1984; Kyriacou and Sutcliffe, 1979a; Laughlin, 1984) have found a moderate negative association between teacher stress and job satisfaction. Some teachers reported both high stress and high job satisfaction. It may be due to the fact that job stress is only one of the many determinants of job satisfaction, and that some teachers find teaching satisfying in spite of stress or even because
of it. Furthermore, good teaching requires hard work; so the increased investment in time and resources results in more stress. It may also mean that the better the teacher, the more open he is to admitting to the existence of stress as an integral part of work situation.

In a study conducted in the U.S.A. by Price (1970), only the conflict stress was significantly, and negatively related to the indicators of job satisfaction. Likewise, Otto (1980) also found that job satisfaction and stress scores were inversely related.

Borg and Falzon (1989) conducted a questionnaire survey on 844 primary school teachers in Maltese State schools. Results indicated a significant negative relationship between self-reported teacher stress and job satisfaction. This finding was revealed across all sub-groups of the sample, and was confirmed by another negative and significant relationship between teacher stress and intention to take a teaching career again. In another study, conducted by Litt and Turk (1985), results suggested that stress producing variables contributed greatly to teachers' general distress and dissatisfaction.

A strong negative relationship between teacher stress and job satisfaction has also been reported by Blase et al. (1986), Kim (1986), Mykletun (1985), and Rud and Wiseman (1962).

So, an inverse relationship between teacher stress and job satisfaction has been fairly well established by the previous research findings.

II(v) Teacher Stress and Environmental Variables

Nine variables have been included in this study from the environmental domain. These include 'consideration' and 'initiating
structure' dimensions of the principal's behaviour, school organizational climate, type of school (high versus senior secondary), location of school (rural versus urban), management of school (government versus private), size of school, subject-taught, and teaching load.

Environment is "a general term designating all the objects, forces and conditions that affect the individual through such stimuli as he is able to receive" (Good, 1959, p. 202). Environmental variables are either internal, all physical conditions and processes, emotions and mental processes that influence the organism and modify response to external stimuli, or external, everything outside the organism which stimulates and to which the organism responds consciously or unconsciously. The former is already covered under 'demographic', 'personality', and 'attitudinal' domains. The present section is concerned with the external category.

a) Teacher stress and 'consideration'

The term 'leadership style' is used generally to describe the style of management of an administration. Most common categories of such styles are authoritarian, democratic, and laissez-faire (Haws and Haws, 1982). For the present, 'consideration' and 'initiating structure' dimensions of the principal's behaviour, measured by the 'Leadership Behaviour Descriptive Questionnaire' (Halpin, 1966) are considered for their possible relationship with perceived teacher stress.

Principal's behaviour determines his staff's attitude to work. His positive behaviour may act as a catalyst for his staff to be more devoted while his negative behaviour may prove counter-productive. Teachers working for an 'inconsiderate' principal are likely to experience greater occupational stress which may not only sour the
interpersonal relationships but also impair the work efficiency. On the contrary, colleagues working under a 'considerate' principal are less likely to experience occupational stress which, in turn, may not only 'sweeten' the intrastaff relationships but also enhance their work efficiency. This line of argument finds support in the few studies previously done on this issue.

Blase et al. (1986) collected data on 'consideration' and teacher stress from 168 full-time elementary, junior high and senior high school teachers. Results revealed a close relationship between the two variables. Kim (1986), too, in his study of 227 teachers in Korea found a significant negative correlation between teacher stress and teachers' reported degree of the principal's 'consideration' behaviour.

The very little research work done on teacher stress vis-a-vis 'consideration' alludes to an inverse relationship between the two.

b) Teacher stress and 'initiating structure'

The approach of a principal, strong on 'initiating structure', may be termed as 'task-oriented' but not 'impersonal. He demarcates each and every one's role, and structures school organizational setting so that there is no ground for role ambiguity. Role ambiguity has been found as one of the major sources of stress by many studies (e.g. Cox, 1977; Dunham, 1979a; Wilkinson, 1988).

The investigator has not found any study directly exploring the relationship between perceived teacher stress and 'initiating structure'. Some sort of conclusions may be indirectly deduced from the results of studies done on teacher job satisfaction, 'initiating structure', and perceived teacher stress. Since teacher stress and teacher job
satisfaction are inversely related (Chavarria-Navas, 1988; Kyriacou and Sutcliffe, 1979a; Santangelo and Lester, 1985; Similansky, 1984; Sutten and Huberty, 1984), and teacher job satisfaction and 'initiating structure' are positively related (Kim, 1986), a negative correlation between perceived teacher stress and 'initiating structure' is expected.

c) Teacher stress and school organizational climate

Sources of stress may be grouped into three categories: personal, within the individual (lanni and lanni, 1983), those resulting from socio-cultural environment, such as unionization (Dawson, 1974), and those emanating from distortions in the relationship between the individual and organization. School organizational climate belongs to the last category.

Previous research indicates that an organization's ability to achieve an appropriate match between structure and environment is a key factor in reducing the stress effects on employees (Lawrence and Lorsch, 1967).

The term 'organizational climate' was first coined by Halpin and Croft (1962) when they developed the 'Organizational Climate Descriptive Questionnaire' - OCDQ. Ever since, it has remained as "the most well known concept and measure of school climate" (Hoy and Clover, 1986). The term has become useful as it identifies precisely the set of independent variables which ought to be changed in order to maintain or even increase the effectiveness of the organization and its members (Guion, 1973).

Though the concept of 'organizational climate' has been the subject of empirical investigations for decades, it has defied a
universally agreed definition (Anderson, 1982; Halpin, 1966; Hoy et al., 1990; Miskel and Ogawa, 1988; Stern, 1970; Victor and Cullen, 1987). As a result, many definitions have been given.

Hoy and Miskel (1987) opine: Organizational climate refers to members' shared perceptions of the work environment of the organization. Tagiuri and Litwin (1968) consider it as "an enduring set of internal characteristics that distinguishes one organization from another and influences the behaviour of its members". To Deer (1980), it is an average of the perceptions individuals have of their daily work environment. Likewise, Hoy and Clover (1986) consider it as a set of measurable properties of the work environment of teachers and administrators based on their collective perceptions. Neumann et al. (1988) articulate that the concept of organizational climate can be summarized as a relatively enduring quality of the school environment which is affected by the principal's leadership, experienced by teachers, and based on collective perceptions.

Halpin and Croft (1963) surmise that 'schools feel different'. As one moves from one school to another, each has a 'personality' of its own. It is this feel or personality which they used to explain analogously the idea of organizational climate. 'Personality is to the individual what organizational climate is to the organization'.

Principal and teachers are the two key determinants of the organizational climate of a school. Based on teachers' perceptions, Halpin and Croft (1963) factor-analysed eight dimensions given by the OCDQ - four relating to principal, namely, 'aloofness', 'production emphasis', 'thrust', and 'consideration', and the other four relating to
teachers, namely, 'disengagement', 'hindrance', 'esprit', and 'intimacy'.

Six prototype school climates, namely, open, autonomous, controlled, familiar, paternal, and closed were then worked out by arranging schools in clusters according to their scores on these eight dimensions. The two more extensively studied are the open climate and closed climate. These are also the concern of the present investigation.

The open climate is characterized by high degree of 'thrust', 'esprit', and low 'disengagement'. The principal and teachers behave genuinely and openly. The principal leads through example and teachers respond enthusiastically. There is a lot of cooperation among the staff. close supervision, impersonality and too many rules and regulations are considered unnecessary. The open school climate looks after both the task achievement and social needs satisfaction of teachers. In brief, the behaviour of both the principal and faculty members is authentic and open. On the other hand, under the closed climate, the principal gives undue stress on bureaucratic routine and unnecessary busywork; teachers respond minimally and enjoy little satisfaction. The principal's ineffective leadership is seen in close supervision, formality and impersonality, as well as in lack of consideration for the staff. The principal fails to provide dynamic personal leadership. This results in teacher frustration and apathy. In brief, the behaviour of both the principal and the staff is not genuine; they 'play games' with each other.

The comparison of the open versus closed climates vis-a-vis teacher stress is very important. Performance of pupils and teacher morale in open climate schools is significantly better than that in schools with closed climate (Pillai, 1974). Furthermore, the open climate
schools show the highest overall teacher job satisfaction as compared to closed climate schools (Chopra, 1983; Lofland, 1985). As such, it is expected that the open school climate, characterized by high teacher morale and high job satisfaction, will produce lower levels of teacher stress as compared to the closed school climate. No previous study on the relationship between perceived teacher stress and school organizational climate has been reported.

d) Teacher stress and type of school

One of the aims of this investigation is to find out as to how teachers from traditional high schools compare on occupational stress with those in the senior secondary schools. Such a comparison may be of keen interest to many involved in the process of education.

Senior secondary schools (based on 10 + 2 + 3 pattern) are a new phenomenon which provide education for two additional years after children pass out from high schools. Teachers in high schools are usually trained, though they may or may not have post-graduate qualification. Teachers in senior secondary schools usually are post-graduates in their respective subjects, though they may or may not be trained, as all of them are appointed as lecturers.

The '10 + 2 + 3' pattern of education was accepted by the Government of India as a policy measure way back in 1968. It has been well received by school teachers (Cheema, 1977), college teachers (Jain, 1977), and university teachers (Kanta, 1977). The Central Board of Secondary Education - CBSE - was the first one to implement it in May, 1975. Some states have also already implemented it; others are to follow suit. Full implementation has been delayed as it "involves the
introduction of methods of teaching and evaluation, and modernisation of curricula as well as upgrading standards" (Ministry of Education, 1985). Another handicap is that the new system is more expensive than the old one. No wonder, majority of the post-middle schools are still functioning as high schools. The new system is still in its 'infancy', so to say. The main point of interest here is: How does the addition of two more classes to a high school affect the perceived occupational stress of teachers?"

The 'school' is a place where 'children' are educated. Students in the 11th and 12th classes ('+1', and '+2', aged 17 to 18 years) could hardly be called children. They are young adults. They have been observed preferring colleges rather than schools, whenever possible, for their post-high school education, as that is more 'befitting' their 'adulthood' status. To be educated in an institution meant for children and treated like them may be a challenge to their ego. This may result in adjustment problems with their teachers, peers and other school mates. Such a situation may eventually end up as a serious source of school indiscipline, a potential stressor (Kyriacou, 1987).

The study of occupational stress in senior secondary school teachers assumes special significance as now more is expected of them. Senior secondary school teachers have been found deplorably low on three different dimensions of professional value scale: attachment, propensity to accept new challenge, and propensity to research (Gupta and Kapoor, 1984). This sort of affairs among senior secondary school teachers is serious, and even alarming. It is imperative to study these teachers from as many aspects as possible, particularly their perceived occupational stress.
Intuitively, it is felt that senior secondary school teachers will report higher stress levels than their colleagues teaching in high schools. This expectation is anchored in the argument that teachers teaching '1' and '2' classes, being the senior most, are expected to work more conscientiously than others. Hardwork means greater effort, taking the job as a challenge. This is more likely to end up in greater professional strain; and, it may be aggravated further by student indiscipline in senior classes as outlined above.

No previous study has reportedly been done on the item discussed above.

e) Teacher stress and location of school

Schools in the countryside are qualitatively different from those in the urban settings. Urban schools are usually more over-crowded than the rural ones. As a result, their teachers are also under greater strain. Over-crowding of schools encourages children to play pranks without being easily noticed. The cinema and video shows in towns is another attraction for children. In a nutshell, the urban environment is rich enough for a school child to go off the track. Such is not the case in the countryside. No wonder, some of the stressors commonly found in the urban schools, such as drug and alcohol problems, vandalism, attack on teachers, and the like, pose lesser threats to teachers working in rural schools. In Punjab, an overwhelming majority of rural schools are run by the State Department of Education. Their resources, overstretched as they usually are, give a larger share to urban schools where children of the 'high class gentry' go in for their education. However, the ever increasing urbanization more than offsets the resources allocated to urban
schools, resulting in larger classes and meagre equipment. These two factors are usually associated with higher levels of perceived teacher stress (Borg, 1990).

Higher teacher stress in urban areas has been highlighted by the fact that "... many inner city teaching veterans are finding it ever more difficult to handle the emotional strain and are leaving the profession" (Washington, 1989). Not only that, many teachers themselves have resorted to drug use, in order to survive the stress in teaching (Watts and Short, 1990).

Very few studies involving the effect of school on teacher stress have been reportedly done. The results have not been conclusive. For example, Blanton (1985) found a highly stressed teacher as the one working in a rural setting. This finding cannot be generalized to the Indian population as rural settings in the U.S.A. and India are vastly different. In a study conducted by Chance (1986), inner city teachers found 20/40 factors, such as lack of administrative support, target of verbal abuse, drug and alcohol problems, and the like, significantly more stressful than affluent urban teachers. Overall, inner city teachers reported higher levels of stress than their colleagues teaching in affluent suburban schools. In another study by Schlansker (1986), school location (rural versus urban) failed to discriminate in the occupational stress levels reported by teachers in the two localities.

In spite of the conflicting results produced by previous studies, it is intuitively felt that because of the inner city problems (associated with urbanization) and over-stretched government resources, urban teachers will report higher levels of occupational stress than those teaching in rural schools.
f) **Teacher stress and management of school**

Schools in Punjab mainly come under two types of management. They are either run by the State Department of Education or by (more or less autonomous) management bodies of private schools. Arguments could be given for either type of management causing undue stress in teachers. A government school teacher, though having a permanent tenure of job, may be under greater stress as the threat of involuntary transfer to an undesired place is always 'hanging like a sword of Democles'. Additionally, he must always keep his record 'clean' for that usually is the key determinant for all his future promotions and other professional benefits. Likewise, his counterpart in a private school may also be under greater stress though for different reasons. His job tenure is usually not permanent. The management can, and in practice do cause trouble for independence-minded teachers who refuse to toe their line. Then, the promotion chances are also minimal. Finally, private schools have limited resources. As a result they are less well equipped than they ideally ought to be.

No previous study has been reportedly done on the relationship between teacher stress and the management of school. In this study, it is expected that teachers working in privately managed schools will report higher levels of stress as they work under tighter control for fewer advantages, and with far more limited resources than their counterparts in state run schools.

g) **Teacher stress and size of school**

School size may have direct bearing on teachers' stress levels. As the school population grows, the institutional organization may become complex, even unwieldy. Teachers may even feel having lost their
identity, and easy access to superiors may become difficult. As the teachers are unable to resolve their day-to-day problems with their superiors and fail to secure the latter's support, the situation may lead to 'bottling up' of emotions of anger, frustration and even helplessness which makes the right recipe for a feeling of stress.

Previous findings regarding the relationship between perceived teacher stress and size of school are conflicting. Blanton (1985) reported a U-shaped relationship between perceived teacher stress and school size. Teachers in schools with population sizes of 0-299 and 600-899 reported greater levels of stress than those who taught in schools with population size of 300-599. Gasser (1985) reported that teachers in larger schools were more troubled, by not having sufficient time for personal intervention with administrators involving transfer, the pressure to include more into the curriculum, not being involved in decision making and over crowding, than teachers working in smaller schools. To put in another twist to the conflicting findings, Jones (1988) found that size alone did not appear to account for the stress teachers experienced.

Though previous studies fail to produce unambiguous results on the relationship between school size and perceived teacher stress yet it seems to make sense that school size has a direct bearing on the stress levels teachers experience. This line of argument is anchored in the lack of immediate availability of senior's support, loss of identity because of the sheer size of school, and job overloading.

h) Teacher stress and subject-taught

The teaching of humanities (language, social studies, history, and so on), in some ways, is unlike the teaching of mathematics/sciences. The latter, being more exact and involving
laboratory work, require more time, effort and preparedness. Teachers teaching humanities usually have longer courses to cover which require more time and greater effort on their part. So, either way, it is difficult to make out a clear-cut case. The few previous studies done on this subject are equally conflicting.

Blanton (1985) reported greater stress amongst science teachers than that amongst others. Science subjects, being more dynamic in their content, may be more difficult to teach. But Scott (1985) found no difference in the stress scores of teachers teaching mathematics/sciences and English/Reading. So, in the circumstances, a directional prediction cannot be made.

i) Teacher stress and teaching load

Apparently teaching load should have a direct association with teacher stress. Many researchers have found teaching workload as one of the stressors. Hawkes and Dedrick (1983) even ranked it as number one stressor for teachers. Feitler et al. (1985), Trendall (1989), and Kyriacou and Sutcliffe (1979a), have also found teaching workload as one of the cardinal stressors. Likewise, Cox (1977), Okebukola and Jegede (1989), and Wilkinsin (1988) also identified teaching workload as a positive correlate of teacher stress.

Previous findings clearly show that increasingly greater teaching load results in an increasingly greater strain on the teacher. Similar results are expected in the present investigation.

Il(vi) A Summary of Findings Reported in the Related Literature

a) Teacher stress and demographic variables

Previous studies report ambiguous and inconclusive findings on the relationship between perceived teacher stress and the demographic
variables of age, teaching experience, marital status and educational qualification. Previous studies report female teachers experiencing greater levels of perceived occupational stress than their male colleagues.

b) Teacher stress and personality variables

Previous studies report a significant positive relationship between perceived teacher stress and the personality dimensions of external locus of control and trait anxiety. Previous research reports a positive relationship between teacher stress and the personality dimension of neuroticism. Very little research work has been done on the relationship between teacher stress and extraversion. The results are inconclusive.

c) Teacher stress and attitudinal variables

The very little research work done on perceived teacher stress and teacher morale points to an inverse relationship between the two variables. The previous research overwhelmingly report an inverse relationship between teacher stress and teacher job satisfaction.

d) Teacher stress and environmental variables

A survey of the related literature revealed very little research work done on the relationship between perceived teacher stress and the environmental variables of 'consideration' and 'initiating structure' dimensions of principal's behaviour, school organizational climate, type of school (high versus senior secondary), and management of school (government versus private).

Previous studies report conflicting and ambiguous findings on the relationship between perceived teacher stress and the environmental variables of location of school (rural versus urban), size of school and subject-taught.
A number of previous studies report a positive relationship between perceived teacher stress and teaching workload.

II(vii) Hypotheses

The above discussion and an observational understanding of the Indian situation allow the formulation of the following hypotheses:

a) Teacher stress and demographic variables

It is hypothesized that there are no significant relationships between teacher stress and the demographic variables of age, total teaching experience, marital status, and level of educational qualification.

It is further hypothesized that female teachers will report a significantly higher level of occupational stress than their male colleagues.

b) Teacher stress and personality variables

It is hypothesized that there is a significant positive relationship between teacher stress and the personality variables of external locus of control, trait-anxiety and neuroticism.

It is further hypothesized that there is a significant negative relationship between teacher stress and the personality dimension of extraversion.

c) Teacher stress and attitudinal variables

It is hypothesized that there is a significant negative relationship between teacher stress and the attitudinal variables of teacher morale and teacher job satisfaction.

d) Teacher stress and environmental variables

It is hypothesized that there is a significant negative relationship between teacher stress and the 'consideration' and 'initiating structure' dimensions of principal's behaviour.
It is further hypothesized that there is a positive relationship between teacher stress and the environmental variables of size of school and the weekly teaching load.

It is hypothesized that there will be no significant differences in the occupational stress scores of teachers teaching mathematics/sciences and humanities.

Lastly, it is hypothesized that teachers teaching in senior secondary, urban and privately managed schools, and those with closed organizational climate will report experiencing greater levels of occupational stress than those teaching in high, rural and government schools, and those with open organizational climate.