SCHOOL ORGANISATION, TEACHERS WORK STRESS AND THE EFFECT OF AN INTERVENTION PROGRAMME

(Volume One)

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ABSTRACT

Many studies have recognised the prevalence of stress in teaching and the multi-faceted nature of teacher stress (Dunham 1992, Brown and Ralph 1993, Boyle et al 1995). Some studies have however highlighted the importance of school organisational factors (Tollan 1990, Proctor 1993, Hart, Wearing and Conn 1995). This aspect has increased in importance due to the pace and extent of curricula and organisational changes within the teaching profession (McHugh and Kyle 1993, Badger 1994). This research has therefore focused on examining organisational factors and particularly their relationship with other stress factors. The stress model used throughout this research has been the theoretical model of processes involved in psychological stress causation, continuation and change 'PSYSTRESS' (Hinton and Burton 1992). Four studies were conducted for this research with a total of 212 teachers from both the Primary and Secondary sectors. One of the principal aims of the research was to develop and evaluate a whole-school stress management package focusing on issues arising from organisational factors and particularly organisational and curricular change. The studies examined the relationship between stress factors in teaching, the roles of perceived organisational change, personal planning, responsibility and concern and the relationship between stress variables and dimensions of the school organisational climate - some specially prepared questionnaires were constructed for these studies. A further study examined the effects of an intervention programme using three different treatment conditions - whole school, individual counselling and one dealing with an aspect of

the curriculum. The results showed statistically significant relationships between the stress factors within the 'PSYSTRESS' model indicating its suitability for stress research with the teaching profession.

The results also highlighted the relationship between organisational climate and work stress. A factor analysis with organisational climate and the 'PSYSTRESS' model identified three factors which were named 'leadership insight', 'workplace ethos' and 'innovatory climate'.

The results of the evaluation of the intervention programme showed that all three factors - organisational, curriculum and individual counselling should be considered within a comprehensive package for stress management in schools as no one particular method was significantly more effective, in all the measures used in the evaluation, than any other. Each method showed merits in specific areas.

An applied model of dealing with teacher stress in the workplace was developed - 'a reciprocal model for intervention' - this model highlights the interaction between the different factors all of which need to be considered if work stress in teaching is to be effectively addressed.

DECLARATION

I declare that this thesis has been composed by myself and has not been presented for any other degree.

All quotations are differentiated from my own work by quotation marks and all sources of information have been acknowledged.

Gavin Reid May 1997

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PSYCHOLOGICAL STRESS

Introduction to Stress

The use of the term 'work stress' has increased in frequency in recent years. It is now used openly and freely in a range of workplaces to describe the harmful effects of the interaction between employee and employment. Unfortunately, the popularity of the term has obscured its clarity and this has resulted in the term being "misused". It has also been suggested (Proctor 1993) that the term is also a misunderstood one.

It is essential, therefore, that a well researched and accepted model of psychological stress is identified in order to provide a framework for effective and useful research into the phenomenon of stress in the workplace.

For the purposes of this study Hinton's Theoretical model of Processes Involved in Psychological Stress Causation, Continuation and Change 'Psystress' (Hinton and Burton, 1992) has been selected. This model considers a range of variables which appear to have relevance to research examining work stress in schools. Additionally, this model offers a comprehensive view of a range of the interactions between stress generating and stress response factors.

Response Based Models

Earlier stress models appear to be principally 'response based'. Stress was seen as 'a non-specific physiological response of the body to any demand made upon it by the environment' (Selye, 1956). As a development from this Selye (1982) identified a 'General Adaptation Syndrome' which focused on the nature of the adaptive response to a stress provoking situation. Selye viewed this in three connecting stages - 'alarm', 'resistance' and 'exhaustion'. The 'alarm' stage provoked emotional physiological changes; the 'resistance' stage was characterised by increased activity of the anterior pituitary and adrenal cortex which helped the person adjust to the stressor, but if the stressor were excessive and the resistance stage could not be sustained, exhaustion would set in. Selye argues that these stages were essentially phases of adaptation and formed a basis for developing the entire concept of stress.

Doubts, however, were raised about the adequacy of this explanation and the model advocated by Selye. It appeared to ignore the psychological impact of stress and the interactive role of the individual in the causes and development of stress. Doubts were therefore cast on the model's inflexibility and the basis for being able to predict individuals responses to different stressors (Insel and Moos, 1974: Lazarus, 1966: McGrath, 1970).

Stimulus Based models

Stimulus-based models of stress followed which focused on 'stressful life events and life adjustment (Holmes and Rahe, 1967: Holmes and Masuda, 1971). Although they acknowledged that not all significant life events were negative or stressful, there was a common theme to all such events which resulted in a significant change in the life of a person, to the extent that a degree of adjustment on the part of that individual was necessary. To support this model, the 'Social Readjustment Rating Scale (SRRS) (Holmes and Rahe, 1967) was developed. This rated 43 life events on a scale from 10 (minor violations of the law) to 100 (death of a spouse). Therefore, the higher the total score on the SRRS for an individual, the greater the likelihood of the onset of stress related illness.

This model possessed similarities to Selye's model in its simplicity and its relationships between environmental events and illness; it differed in that Selye's model was based on physiological responses, while the stimulus based model conceptualised stress in relation to the nature and number of life events experienced by an individual over a period of time. The simplicity, however, of the model and more specifically the SRRS resulted in some criticism which highlighted serious flaws in the model. Brown (1974) asserted that the vagueness of the narrow statements of the SRRS did not allow for individual variations of responses from individuals encountering similar life events. It, therefore, ignored individual's coping capacities in adapting and adjusting to particular life events. The models proposed by Seyle (1956) and Holmes and Rahe (1967) did not consider personal

perceptions, and were too crude and mechanistic to provide a sound all embracing model of stress. Their models, therefore, paved the way for more sophisticated models which considered a range of aspects including personal perception, personality factors and the factors which mediated between stressors and the physical and mental responses of stress.

Transactional Models

Transactional models essentially provide an appreciation of the dynamic transition between an individual and his environment (Cox, 1988: Lazarus and Launier, 1978: McGrath, 1970). These essentially 'cognitive' models considered personal perceptions and the role played by emotional and behavioral responses.

Lazarus (1966, 1976) therefore contributed to the widening of the concept of stress in his interactionalist model. He proposed that 'stress occurs when there are demands on a person which tax or exceed his adjustive resources'. Lazarus emphasizes that 'stress is not simply out there in the environment'. Every individual will experience and respond to stress differently depending on their 'cognitive apraisal'of the situation and the adequacy of their coping mechanisms in responding to factors such as 'threat', 'conflict' or 'frustration' (Lazarus and Folkman, 1984).

Key aspects of 'cognitive appraisal' include 'primary appraisal' - which refers to one's initial judgement of a situation; secondary appraisal in which a person attempts or

considers some action, its possible consequences, and reappraisal when the situation is reviewed because of new information and feedback from responses. Thus stress requires a judgement that environmental or internal demands tax or exceed the individual's coping resources (Holroyd and Lazarus, 1982).

Cox and Mackay (1985) further developed the importance of the individual's cognitions and perceptions in the stress experience. Their transactional model suggests stress is the result of complex interactions between the person and the environment. As a result of this interaction some demand is placed upon the person, which requires mental or physical action. The individual must make a 'cognitive appraisal' of the 'perceived demand' and of his/her 'perceived capabilities'. Stress will arise when there is an imbalance between the two and the greater this discrepancy, the greater the stress. The stress responses can also be viewed as a person's means of 'coping ' and the perceived consequences of these coping responses form an element of this model. Feedback is also an important component of the model. The stress response can alter the perception of the demand. Cox therefore views these mechanisms as being concerned with maintaining the individual in equilibrium.

'Psystress' Model

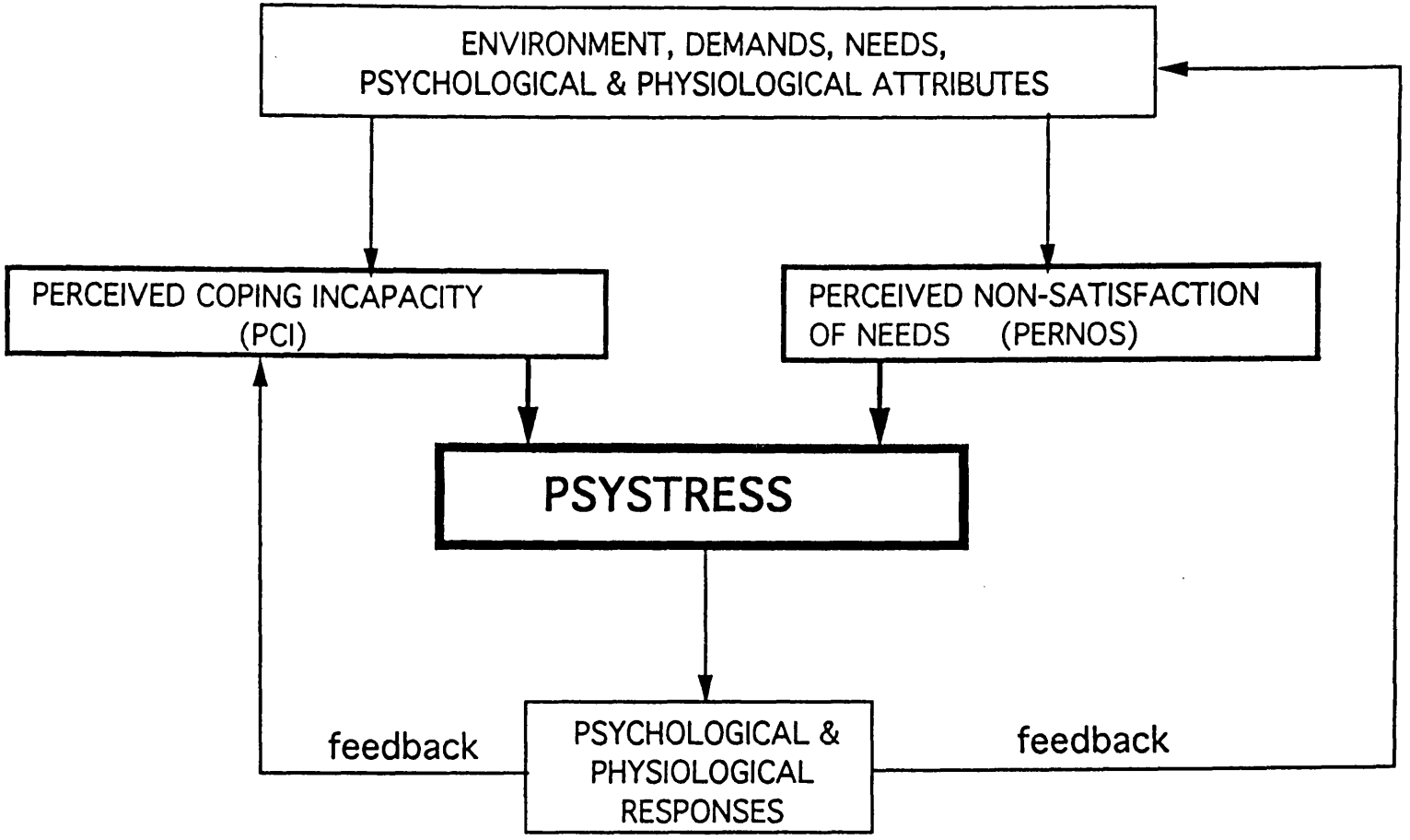
Hinton (1990) however develops this model further. He also views stress as an intervening variable, which forms part of a cybernetic system of transactions between man and the environment. Hinton also proposes that stress results from an imbalance between perceived demands and perceived capabilities, and that this occurs through cognitive appraisal. He emphasizes that this process is both subjective and idiosyncratic. Part of this process involves self-assessment of Perceived Coping Incapacity (PCI), and he refers to this as the primary stress generation factor in the model. A further necessary component of stress generation is the individual's perceived non-satisfaction of needs (Pernos) which is also incorporated into the model. Therefore in a situation where Pernos is zero, it is unlikely that psystress would be present. As an intervening variable, stress can only be measured from stress generation factors and responses. Hinton et al (1987) devised the Cognitive Appraisal Stress Test (CAST) to measure Perceived Coping Incapacity (PCI). To assess the effect that perceived non-satisfaction of important needs was having in contributing to stress Hinton et al (1989) developed the perceived non-satisfaction of needs ratings scale (PERNOS). Stress can also result if the individual believes he or she is receiving little social support in relation to PCI. In order to measure this factor Hinton (1991) devised a Social Supports Scale (SOCSUP).

The response to stress is manifested physiologically, emotionally, cognitively and behaviourally in Hinton's model. Physiological stress responses can be measured

by assessing psychosomatic symptoms and self-medication. To measure psychosomatic ailments Hinton and Rotheiler (1988) and Hinton et al (1987) developed the Psychosomatic Symptoms Scale (PYSOM). A self-medication scale was devised by Neilson (1992). In order to assess the emotional component of the stress response Hinton et al (1989) developed the emotional response to stress test (ERST). Behavioral responses to stress are measured by work behaviour stress responses (WRST 1 and WRST 2). WRST 1 looks at more subjective responses, such as asking the subject whether their work gets disorganised, whereas WRST 2 asks about more objective responses to stress, such as how often the subject is absent from work, not due to illness.

Hinton's model also considers a person's motivation to cope with a perceived demand as being important in determining the behavioral stress response. The individual's motivation is included in the model as a moderating variable and Hinton et al (1989) developed a General Motivation Scale (GEMOS) to measure this. Feedback is clearly a feature of this model.

The psystress model has undergone considerable piloting and revision. Essentially it is an evolving model and from 1990-96 a considerable amount of studies reported in journals and at international symposia support the development and the validity of the psystress model (see Appendix to References Vol. 1). Its validity as a model for understanding psychological stress in the workplace appears sound. The figure below highlights the central components of this model. It can be seen that perceived coping incapacity (PCI) and perceived non-satisfaction of needs (PERNOS) are the


ENVIRONMENT, DEMANDS, NEEDS,
PSYCHOLOGICAL & PHYSIOLOGICAL ATTRIBUTES
PERCEIVED COPING INCAPACITY
(PCI)
PERCEIVED NON-SATISFACTION
OF NEEDS (PERNOS)
PSYSTRESS
feedback
PSYCHOLOGICAL &
PHYSIOLOGICAL
RESPONSES
feedback

central factors in this model. PCI therefore may be reduced by physical and social support and in turn, have an effect on ones physiological and psychological attributes.

The model appears a robust one and has undergone analysis focusing on the validity of the questionnaires, the appropriateness of the questionnaires in relation to the model and its application through different modes of measuring stress - one-subject case study and group psychometrics. Additionally the model is essentially derived from the transactional view of perceived stress (Cox, 1978) which is widely accepted as a valid model of understanding stress in the workplace.

One area of weakness however within the psystress model may relate to its application throughout the piloting stages. The vast majority of the studies were conducted in work environments other than schools, only a few studies took place in schools, and a number of these were in relation to this present piece of research. A major part of the validation of the psystress model derived from studies with shipyard workers - a workforce which were certainly undergoing changes but the nature of these changes and the type of work involved is clearly quite different from that witnessed in schools.

Another criticism which may be levelled at the psystress model is that it is an evolving model. From 1988 until the present the model has been revised and extended. Does this imply that in its earlier form it was not a valid model for measuring stress? If it were why therefore does it need to undergo constant

revision? The question therefore which is particularly relevant to this piece of research is that although the model has been revised since it was utilised for this current research are the findings in relation to the psystress model still valid? It is suggested here that they are still valid because the principal aspects of the model - the role of PCI and PERNOS and the psychological responses are still central aspects of the model. The revisions which have taken place in fact have actually confirmed the central role of those aspects. For example one of the significant additions has resulted from salivary analyses and this has been found to provide some indications of work stress and perceived challenge from work demands (Hinton and Burton, 1996). These findings have not altered the actual model but have in fact confirmed the importance of cognitive and physiological responses in a measure of work stress. The model acknowledges that behavioural coping responses can lead to changes in environmental demands and this can lead to a reduction in physiological and psychological needs. It also acknowledges that some behaviours such as absenteeism can actually lead to increased environmental demands. The work environment, its demands and its changes appear to be a major influencing aspect of the psystress model. In view of this it can be argued that the model does not adequately analyse the precise nature of these environmental demands and particularly the nature of the changes in these demands. What's more the scale which is used to deal with work environment does not differentiate between different work environments. For example some of the questions relate to toilet, wash room and shower facilities. These may have a high priority with, for example, shipyard workers but may not be so influential in producing or alleviating environmental demands with teachers in school. This perhaps relates in some way

to the previous point that many of the validation studies took place with populations other than teachers and in the main with manual blue collared workforce.

The model also acknowledges that work stress may be acute or chronic (Hinton and Burton, 1996) yet the instruments used to assess the extent of workstress do not actually provide any data or suggest a cut off point to differentiate between acute and chronic stress. The criteria used of combining PCI and PERNOS with low motivation and low social supports can be just as valid with acute work stress as with chronic work stress. The instruments and hence the model do not provide qualitative data to distinguish between chronic and acute or even to identify the most influential stress factors in the actual workplace.

Although the model does appear to offer a valid examination of the general variables influencing work stress it does not provide the most specific illuminative data which could be utilised in for example an intervention programme.

Levels of stress can only be gauged indirectly, that is from the input of PCI and PERNOS and from its effects estimated in terms of emotional response, psychosomatic complaints and motivational state. Additionally the responses are subjective and in relation to physiological responses in particular there must be some doubt as to whether a subject who is undergoing considerable work stress and perhaps displaying physiological symptoms of this is actually in a position to recognise this and what's more record it accurately in a self-report questionnaire.

This type of data can perhaps be more effectively obtained as the starting point in an actual intervention programme which can commence with a specific stress audit (Dunham, 1995).

Salivary cortisol sampling is one example of additional physiological responses which correlate with the psystress model. Yet recent studies suggest that this measure may be contaminated with other factors such as defensiveness and individual personality differences (Brown et al, 1966, Martin, 1997).

Additionally salivary cortisol sampling does not take into account the variance due to individual differences in normal cortisol levels (Charlton, 1991).

The psystress model acknowledges the limitations of self-report scales and the lack of objectivity which can result in such scales. This is particularly the case in relation to work stress because although there is now less stigma attached to work stress (Proctor, 1994) it is still an area where self disclosure can be difficult. To overcome this limitation the psystress model has sought to include physiological measures which can help to confirm the responses from the self-report items. For example the use of miniature psychophysiological multi-channel recorders can be used in the workplace to record ambulatory rate. The subjects would be able to record their own ratings of psychological state and this can be used to supplement the responses recorded in the subjective report scales. This procedure however was not used in this present research and thus the limitations of self-report and particularly in this area, need to be considered in an analyses and discussion of the responses.

It must also be acknowledged that the psystress model is not totally all embracing in consideration of all the factors relative to stress generation and responses. For example it does not consider climatic factors, such as those producing seasonal affective disorder (SAD) and racial, cultural and class differences. The model does not directly focus on factors outside of work which can have a considerable bearing on ones tolerance to work stress. Those can include for example, family care expectations, domestic responsibilities and levels of family and social support outside of the workplace. These factors could influence perceived non-satisfaction of needs (PERNOS) and perceived coping incapacity (PCI) (Hinton and Burton, 1996). The importance of considering 'total load' in work stress research is emphasised by Frankenhaeser et al, 1991.

The psystress model therefore provides a framework for assessment of psychological work stress but its limitations need to be considered, particularly those in relation to self-report items. It should also be acknowledged that the additional psychophysiological measures which help to supplement the self-report items thus strengthening the model, were not included in this research.

The psystress model therefore provided a useful framework for this research but its use resulted in limitations in utilising the responses for the development of an in-service intervention programme.

The psystress model is, however, a great deal more comprehensive than Cox and Mackay's. It is appealing because it provides a framework for work stress research

which considers transactional influences and the systemic context of individuals and individuals within organisations. It is particularly appealing for this study since it acknowledges the role of social support, responsibility and concern, motivation and goal orientation and behavioral and environmental factors. These factors are of concern to the teaching situation and school system, and social support in particular has a strong focus in this particular study. Placing this model against the context of the school organisation seems realistic and worthwhile. Hinton's model, therefore, while retaining the transactional principle can be adopted to consider and explain the role of systemic factors in relation to an individual's perceived stress. It also incorporates feedback factors and the influence of personality factors. A diagrammatic representation of the model can be seen in Appendix 38 (Vol. 2, p.162).

Chapter 2

Occupational Stress

Karasek's Job Strain Model

A number of models of occupational stress can also be identified. One such model is Karasek's Job Strain model (Karasek, 1979) which looks at the effects of job demands and the freedom for decision making available to the individual in relation to psychological strain and subsequent occupational stress. Thus, according to the model autonomy, the opportunity to utilise their skills and control over the working environment will result in workers viewing their occupation in a more self-fulfilling manner. This model, therefore, has practical implications both in relation to job design, organisational aspects of the workplace and the role of the workforce.

Moo's Model

Another model of occupational stress is Moos' model (Kiritz and Moos, 1974: Moos, 1988). This model focuses on environmental factors in the workplace, particularly on the 'social climate'. This model asserts that social environments have unique personalities, in a similar fashion to individuals, and therefore can be perceived as, for example, 'warm and supportive' or 'bossy and controlling'.

The model identifies three underlying dimensions common to all work settings. The 'Relationship Dimension' which relates to the extent to which individuals help and support each other. This can help determine the extent of, or indeed, prevent occupational stress from arising. The other dimensions, 'Personal Development Dimensions and the System Maintenance and Change Dimension relate to autonomy and responsibility and the level of structure and openness to change respectively. The model implies that these three dimensions are likely to be the source of occupational stressors.

Moos' model which highlights the importance of social support and work climate is closely linked to the concept of organisational climate. This concept is of fundamental importance in this current research and is the main focus of the study described in chapter ten.

Sources of Stress in the Workplace

Social support in the workplace has also drawn much attention from researchers. The interactive nature of the workplace provides an opportunity for social supports (Payne, 1980). Williams and House (1985) assert that social support in the work setting has a greater effect on job strain than non-work sources of support. Furthermore Winnubst, Buunk and Marcelissen (1988), following a longitudinal study assert that social support from supervisors is of far more importance to the worker than such support from colleagues. Glowinski and Cooper (1985) consider that

social support may be more significant in occupations where team work plays an important role. Considering these studies it seems appropriate to study the aspect of social supports in school. The 'supervisor' or headteacher plays a key role in the functioning of the school and increasing the teacher's role in becoming more of an interactive one, working within a team rather than an individual, solitary one.

These studies, therefore, portray a picture of the importance and influence of work organisations and work environments, particularly organisational climate, role of supervisor and social supports in the workplace. These areas will clearly feature in the intervention programme for this research (see chapter eleven).

In recent years it has become increasingly recognised that stress in the workplace is common and has far reaching effects. Research has identified work stress as a major obstacle to job satisfaction and also as a threat to both physical and psychological well-being (Kahn, Snoet and Rosenthal, 1980). This affects not only the individuals concerned but also the employing organisation. The workforce may be less efficient, more prone to absenteeism and generally less effective in their professional role (Burke, 1988).

Cox (1980) applied his model to conceptualise stress in the workplace. He said for occupational stress to occur there should be an imbalance between the worker's perception of the job demands and his/her perception of his/her capability to meet these demands. Cox emphasized that underload (for example boring, repetitive

work) can be just as stressful as overload, though coping resources for both might differ.

Pithers and Fogarty (1995) using the Occupational Stress Inventory compared data from teachers and professional non-teachers. The results overall showed a significantly higher level of stress for this teaching group.

An important aspect of this study was the implications for occupational roles. Significant differences were found in the role overload subscale with the teachers scores significantly higher.

This is in fact consistent with a U.K. study of occupational stress of head teachers in primary and secondary schools (Cooper and Kelly, 1993) in which the main sources of occupational stress were work overload and handling relationships with staff. Other studies have also confirmed this view. Borg, Riding and Falzon (1991) find occupational role stressors to be the major stressors for primary teachers in their sample.

Pithers and Fogarty (1995) conclude from their study that although individual stress management programmes may help to reduce personal levels of teacher stress, the results of their research "add support to the notion that there is a strong need for organisational stress management".

One review of the research literature (Glowinkowski and Cooper, 1985) recognised five possible sources of stress in the workplace - factors relating to the job itself, such as work overload: role stressors, such as role conflict or role ambiguity; interpersonal relations at work, such as lack of promotion or fear of redundancy, and organisational climate particularly in relation to general communication, levels of participation and organisational trust. This latter aspect, organisational climate was identified as being particularly worthy of further consideration in a large scale study or primary school teachers (Proctor, 1994). This point and the others mentioned in this chapter will be discussed further in the following chapters on Stress in Teaching and Organisational Stress.

Chapter 3

Stress in Teaching

- **Incidence of Stress in Teaching**

As occupational stress in general has gained more recognition, there has been a subsequent increase in research examining teacher stress. Stress in teaching appears to be on the increase (Proctor, 1993: Dunham, 1992) but this may be due to the increased awareness and greater willingness from teachers to fill in questionnaires on the subject. Absence rates is one way of measuring stress in teaching, and in a study by Simpson (1976), among Scottish teachers, this was used to identify teachers in the earliest stages of their careers as an indicator of work stress. Those in the 35-49 years old age group suffered the least stress, whilst teachers older than this began to suffer increased stress with age.

Kloska and Ramasut (1985) in a survey of 64 teachers selected from 4 mixed schools in a large city, found that 34% found teaching either very or extremely stressful.

Spooner (1984) in a large scale study involving 296 teachers in primary schools found almost 20% reported their work caused either "much stress" or "extreme stress". Trendall (1989) obtained data from 237 teachers across primary, secondary and special schools within one local authority and found that 74% of the teachers rated teaching as a profession as being either "stressful" or "very stressful".

Cox, Mackay, Watts and Brockley (1978) found that in a comparative study of "stress" in 100 teachers and 100 semi-professionals, work-stress featured in the responses from 79% of the teachers, as compared to 38% of the group of semi-professionals. Similarly Cox and Brockley (1984) found in a matched study that 67% of primary and secondary teachers reported that their work was the main source of stress, as against 35% of the non-teachers and only 11% of the teachers claimed to experience no job stress, as against 30% of the non-teachers.

In Studies of School Management, Downton (1987) found that responses from 77 primary headteachers in Dorset indicated that work-stress accounted for 66% of their life-stress. This supports the findings of Knutton and Mycroft (1986) who found that 25% of deputy headteachers out of a sample of 154 found their work either very or "extremely stress". Knutton and Mycroft also indicated that the level of "stress" was not related to the respondent's sex, age, length of service, educational qualification and characteristics of the institution.

Vance and Booney (1989) found time management problems to be significant generators of "stress". This seems to concur with studies undertaken for this current piece of research and will, therefore, play an important role in the in-service programme.

Luckner (1990) found that reducing isolation proved to be a significant strategy in dealing with teacher stress. This was also found by Hollingsworth (1990) to be a significant stress factor. This in fact relates to the dimension of social supports

which also seems to be given some importance in the literature, and will also be a feature of the in-service programme for this research.

Dunham (1992) highlighted the threefold increase in the number of teachers leaving the profession during the 1980s and the four-fold increase in the number leaving the profession during that period due to ill health. Munro (1992) suggests the statistic of 50% of Scottish teachers who retired during 1990-91 younger than 60 may have some connection with the increase in occupational stress in the teaching profession.

Johnstone (1993) in a large scale study involving 531 teachers found that the majority reported at least one stressful occasion during the week and most teachers reported between three and five incidences. Johnstone found that workload was the most frequent cause of stress and that new demands, administration and planning were quoted as stressors.

- **Nature and Cause of Teacher Stress**

Dunham (1992) (p3) views stress in teaching as "a process of behavioural, emotional, mental and physical reactions caused by prolonged, increasing or new pressures which are significantly greater than coping resources". This definition relates to the transactional model.

Another commonly used definition of teacher stress is that suggested by Kyriacou and Sutcliffe (1987), which highlights emotional factors:

"a response of negative affect (such as anger or depression) resulting from aspects of the teacher's job and mediated by the perception that the demands made upon the teacher constitute a threat to his self-esteem or well-being, and by coping mechanisms activated to reduce the perceived threat."

The Assistant Masters and Mistresses Association Report (1987(b) suggests that stress in teaching can be tackled at both an individual level and at an organisational level. It suggests that if the organisation creates an imbalance by inappropriate demands on staff, in terms of a mismatch between the work loads of teachers and the ability of individual teachers to meet them, stress reduction strategies must be implemented. Nattrass (1991) asserts that neither strategy, individual or organisational on its own will be totally effective.

Some recent studies examining teachers and teaching in relation to occupational stress cite a range of influential factors, some of which include:

- little individual control over school events
- role conflict and role ambiguity
- pupil behaviour in relation to discipline and to work
- poor school ethos
- workload, especially in relation to the pressure of work
- curriculum innovation without adequate resourcing
- school reorganisation.

Dewe (1986): Dunham, (1984): Nut, (1990): Amma (1990)).

It is impossible and certainly undesirable, to produce a checklist of causes of teacher stress since different individual and organisational variables interact in different combinations depending on both the individual's coping resources and the institutions organisational structure and social supports. One, however, can observe common trends in most studies. For example in a fairly comprehensive study (Brown and Ralph, 1993) involving four educational authorities looking at both teachers and school organisations, the researchers found the main contributory factors to stress in teaching came from the following categories:

- Teacher/Pupil relationships
- Relationships with colleagues
- Relationships with parents and the wider community
- innovation and change
- school management and administration
- time factors.

Similarly, (Kyriacou, 1989) on reviewing the research literature concluded that six principal situational factors can contribute to stress occupational stress can be detected. These include:

- poor motivation in pupils
- pupil indiscipline
- poor working conditions

- time pressures
- low status
- conflicts with colleagues

Trendall (1989) found that teachers tend to report more stress from role overload than role conflict. From a list of twenty items teachers were asked to rank order five stressors and the most apparent stressors were:

- lack of time
- large classes
- teaching workload
- pupil misbehaviour

Trendall also indicated agreement across all groups - primary, secondary and special school teachers, in relation to the ranking of the most prominent stressors.

Using a case study approach in one large comprehensive school (Coldicott, 1985) in which participants were asked to rate each of 21 possible sources of stress on a scale ranging from very stressful to not stressful, it was found that individual pupil factors provided more reported stress than organisational factors.

Wilkinson (1988) in another case study approach in a comprehensive high school, found that role conflict and role overload were prominent stressors. He summarised his findings by using the following categories as cause of stress: working conditions; role factors; pupil problems and time pressures.

Kyriacou (1987) however, indicated that disruptive pupils are not the major source of stress for teachers, factors such as workload and general poor attitudes are seen as being more prominent.

Kelly (1988) in a large scale study involving school management and administrators found that work overload, handling staff relationships, resources and the market approach, the demands and constraints of local education authorities, handling inadequate staff and feeling undervalued were the most salient factors.

Dewe (1986) investigated the causes and consequences of teacher stress and effective means of stress management and found the following situations caused teacher stress: work overload; expectations of parents and others; relationships in the classroom and little control over school events.

Dunham (1992) cites ten major sources of stress:

- lack of support from the government
- constant changes
- lack of information about these changes
- lack of respect for teachers
- National Curriculum
- salaries being out of proportion with workload
- pupil assessment
- pupil's behavioural problems

- lack of non-contact time
- lack of relationship between teaching and promotion.

These categories show the influence of both teacher factors and organisational aspects and relate closely to the aspects to be studied in more detail in this study. Boyle, Borg, Falzon, Balglion (1995) in a large scale study involving 710 primary school teachers supported the notion of the multi-dimensional nature of the sources of teacher stress. The researchers therefore suggest that if stress management programmes are to be successful in helping teachers cope with work pressures, then such programmes would have to take into account the factors which their study identified - Poor Colleague Relations; Classroom Resources; Professional Recognition; Student Misbehaviour and Workload. This present study will be addressing these issues in the intervention programme through organisational climate dimensions and teacher supports.

Kyriacou and Harriman (1993) acknowledge that the sources of teacher stress has received considerable attention over the last twenty years but believe that some particular areas have been neglected in the research studies. One such area they argue is stress linked to the merger and reorganisation of schools. They feel that the management of the reorganisation itself can heighten the stress experienced by teachers, particularly relating to poor communication, how decisions are arrived at and how that decision is communicated to staff. They acknowledge that in the 1990's schools are facing unclear consequences of the educational legislation of the 1980's and early 1990's and therefore the need to explore the nature of stress for

teachers involved in any form of reorganisation is evident. This has clear implications for this present research which focuses on reorganisation and organisational change.

Kyriacou and Harriman's study (1993) found that school merger is a particularly stressful process for those concerned and that the single most important action to prevent this type of teacher stress would have been to provide more information and counselling to the teachers involved.

The volume of the research on stress in teaching, therefore, demonstrates that the phenomenon is both complex and multi-faceted (Kyriacou and Sutcliffe, 1978; Trendall, 1987). This review of the literature will therefore focus on these different facets for the remainder of the chapter.

- **Age and Experience**

These factors are considered together because age differences generally reflect teaching experience. According to Laughlin (1984) younger teachers are most concerned with their pupils. Middle-aged teachers with their careers and older teachers with general teaching. The implication perhaps being that as teachers learns to cope at one level then they move on to other concerns. However, as this study was not longitudinal the changing concerns of an individual teacher were not reflected.

Additionally Nias's (1985) study seems to challenge this. In a study of probationer teachers he found a range from "stressfree" to "excessive stress" and some remained stressed during the nine years follow-up. This also contradicts earlier results (Simpson, 1976) who found in a study on Scottish teachers that stress was most prevalent and at its highest level in teachers at the earliest stages of their careers.

Gorrell, Gregnan, McAllister and Lipscomb (1985) identified teachers with more than 15 years teaching experience as having the highest stress levels. He found that the stress they experienced was largely of the structural type, that is stress with the school organisation and environment.

Johnstone (1989) on reviewing research findings on the part played by biographical factors in teacher stress concluded that there was no firm evidence that gender, age or experience made a contribution to the occupation stress reported by teachers.

- **Female/Male Differences**

Rudd and Wiseman (1962) reported that women experienced most stress over classroom situation, whilst men are more stressed by whole school or career situations. A study of Australian teachers by Laughlin (1984) found that women felt they were more stressed by pupil and curricular demands, whereas men felt stress in relation to participation and professional recognition. Studies by Kyriacou and Sutcliffe (1978) and Laughlin (1984) have also demonstrated that women experience more stress over classroom control and discipline. Young female teachers were found to have a higher voluntary absentee rate than their colleagues, or indeed their married female colleagues with children (Simpson 1976). Hargreaves (1978) demonstrated that married women coped better with stress in teaching because they had involvement and satisfaction in other spheres of life. In terms of job satisfaction Cox (1980) noted that male teachers in large comprehensives reported the most whilst female primary teachers reported the least. However, it should be noted that comparisons in terms of job satisfaction are clouded by the fact that female teachers tend to be primary school teachers. In a study by Goldberg and Huxley (1980) it was noted that women teachers tend to suffer more from 'minor mood disorders' and depression than men. However, this may largely be due to women feeling more able to admit to stress-related problems.

Trendall (1989) however, found that females were more likely to be in the high stress group than males.

It has been suggested that women tend to identify different sources of stress to men (Laughlin, 1984), but it should be appreciated that in examining such data that in some educational settings, such as primary schools, women form the majority of staff. The differences, therefore, may not necessarily be due to sex, but due to some other variable, such as school organisation. Indeed Cooper and Kelly (1993) found that for both male and female headteachers "job satisfaction" was predicted by the same job stressors such as work overload and handling relationships with staff. In relation to coping strategies, however, they found that female headteachers do not tend to use palliative strategies whereas males do.

Manthei's (1987) New Zealand study found that work stress among school counsellors was perceived differently by men and women. Manthei suggests from his research that males appeared to be more career orientated and reported being stressed more by the performance of non-professional duties and financial concerns than women.

- **Personality Factors**

Psychometric measurements of personality factors have been criticised as having limited usefulness in relation to stress in teaching because they do not take account of situational variables and they have no predictive power. Some researchers, such as Kyriacou (1980(a)) maintain that personality factors can be very much part of what makes a teacher 'stress-prone'.

Fotheringham (1991) states that it is important to note the role of individual differences when examining the reported experience of and the response to stress. She describes study by Henderson, Bryne and Duncan-Jones (1981) which found the neuroticism as measured by the Eysenck Personality Inventory, accounted for 69% of the variance in a combined measure of mental health. In a study by Pratt (1976) teachers who scored higher on the neuroticism scale of the Eysenck Personality Inventory were found to be more stressed.

McCrae (1990) found that neuroticism not only influences an individual perception of a potential stressor, but also affects coping strategies, satisfaction with social support and psychosomatic complaints. McCrae therefore argues strongly for designs that control neuroticism. This factor, therefore, has been taken into account in the present study.

A paper by Simpson (1987) looked at causes and effects of stress in primary school headteachers according to a measure of Type A/Type B personality dichotomy

(Friedman and Ulmer, 1985). Simpson concluded that Type A headteachers were more likely to experience stress as a reaction to pressure. In recent years Type A's pattern of behaviour can be a strong predictor of cardiovascular disease and other stress-related illness (Cooper and Payne, 1991).

Cooper and Kelly (1993) describe some behaviours of Type A personalities as competitive; striving for achievement; aggressive; impatient; restless and feelings of being under pressure of time. In the same piece of research which involved a random sample of 1 in 6 headteachers throughout the UK, Cooper and Kelly (1993) found headteachers most at risk of mental health problems are those who fit a Type A behavioural pattern and attempt to cope with stressors by palliative coping strategies such as drinking, smoking and tranquillisers.

It should however be noted that the concept of Type 'A' personality has been subject to recent criticism and is thus a highly suspect concept (Kline 1994; Hinton et al 1991; Hinton 1994).

- **Effects of Teacher Stress**

In the description of Hinton's (1991) model of "stress" it has been stated that the response to "stress" can be manifested physiologically, emotionally and behaviourally. Physiologically stress may be expressed in terms of psychosomatic ailments, such as headaches, muscle tension and back pain. Emotional responses may include anxiety, frustration and depression. In terms of behavioural responses the stressed individual may display displaced aggression, over eating or may have alcohol problems. In the specific context of the work environment the individual may make mistakes, display lateness, or frequent absence. These factors may then feed-back and heighten the person's Perceived Coping Incapacity.

Kyriacou and Sutcliffe (1977b) describe the symptoms of stress as including *"physical (peptic ulcers, cardiovascular diseases); psychological (depression, anxiety), or behavioural (deterioration in work performance, deterioration in interpersonal relationships)* p.303.

Dunham (1976) identified two types of common stress response among teachers. The first he termed 'frustration' and this was characterised by the type of psychosomatic symptoms described by Hinton. The second response he termed 'anxiety', which he said was associated with loss of confidence, confused thinking and occasional panic. Dunham stated that prolonged exposure to stress would lead to exhaustion and complete collapse, synonymous with nervous breakdown, or to

teachers employing withdrawal strategies, such as frequent absenteeism or withdrawal from teaching altogether.

In a further study Dunham (1984) grouped stress reactions into four main categories: behavioural; mental; emotional and physical.

Kyriacou and Sutcliffe (1978) completed a survey of secondary school teachers and found that the most frequently reported symptoms of stress were exhaustion, frustration, anger, tension, anxiety, depression, nervousness, headaches, palpitations, loss of voice, increased blood pressure, indigestion, cold sweats, tearfulness, feelings of being unable to cope and panic. In a subsequent study Kyriacou and Sutcliffe (1979b) examined the relationship between self-reported teacher stress and job satisfaction, absenteeism and the intention to leave teaching. Their findings were that stress was positively correlated with the intention to leave teaching and the total number of days absent, and was negatively correlated with job satisfaction.

Kyriacou (1987) cites the mounting evidence that prolonged occupational stress can lead to both mental and physical ill-health as a cause of concern in relation to teachers and teaching. He asserts that stress may significantly impair the working relationship a teacher has with his pupils, as well as the quality of teaching and commitment he is able to display.

The most severe condition of stress in teachers has been termed 'burnout', (Freuckenberger, 1974; Maslach, 1978). Teacher burnout refers to a state of mental, emotional and attitudinal exhaustion which results from a prolonged experience of stress (Kyriacou 1987). Burnout has a number of symptoms and teachers may experience them to a greater or lesser degree. The first stages may be characterised by feelings of personal distress and uncertainty about decisions, coupled with a growing reluctance to go to work. Following from this teachers may try to distance themselves more and more from the job. They may limit the amount of work done, cut out all extra-curricular activities and their attitude towards colleagues and pupils may become cynical and negative. They may express an outright desire to leave the profession, absenteeism will increase and their effectiveness as a teacher will lessen. In severe cases of burnout, caused by prolonged exposure to stress, there will be permanent anxiety which can cause depression, neuroses and other mental illness. Teachers at this stage may hold very negative self-images. Other responses may include alcoholism, chronic smoking, drug dependency and marital conflict. Burnout teachers have largely lost their commitment and enthusiasm for the job and Marcini et al (1982, 1984) showed burnt out teachers gave less praise, less information and had less acceptance of pupils' ideas.

Simpson (1976) and Kyriacou and Sutcliffe (1979) investigated the effects of burnout in terms of absenteeism. Simpson found that the highest rates of absenteeism for both female and male teachers in Scotland was at the beginning of their careers. This does not match the pattern of other occupations where absenteeism increases

with age. Kyriacou and Sutcliffe reported that absenteeism was greater for female than male teachers. An international study (ILO 1981) indicated that prolonged "exposure to stress" resulted in teachers in Scotland, Canada, New Zealand and Belgium seeking alternative employment and early retirement, that is withdrawal from the profession completely.

'Frustration' and 'exhaustion' seem to be commonly expressed feelings from respondents in stress studies. Wilkinson (1988) asked 60 teachers to indicate their reactions to "stress at work". He reported that just over 50% mentioned 'exhaustion'. On the basis of interview data Wilkinson felt the main stress responses were 'irritability', 'frustration', 'tension' and anxiety'. Similarly, Spooner (1984) found from a sample of 296 that the highest main stress responses were exhaustion, tension, frustration and anxiety.

Spooner (1984) investigated the relationship between occupational stress and physiological factors. Using physiological stress indicators such as - blood pressure, pulse rate, sweat index, galvanic skin resistance and urinary cortisol output, Spooner found that these measurements displayed an overall increased level of stress during the school term and periods of reduced stress reactions during the holidays which implies that psychological stress increased in this sample as the school term progressed.

- **Locus of Control**

Considerable attention has been given to locus of control (Dunham, 1992; Capel, 1987, 1989, 1991; Halpin, Harkiss and Halpin, 1985). Halpin et al studied 130 full-time teachers from different types of schools and found that teachers with least stress had been given responsibility for their students' learning, and also had an internal locus of control. Teachers in the same study with an external locus of control viewed the intrinsic aspects of their work as stressful.

Kyriacou and Sutcliffe (1978a) suggest that an individual's appraisal of whether an event is threatening and therefore stressful, would be influenced by their locus of control.

Cherniss (1980) found that bureaucratic decision making processes generated feelings of powerlessness and disaffection in teachers. Dunham (1980) suggested that this heightened stress in teachers because they felt they could not influence their superiors in matters they thought important.

Capel (1989) in an examination of predictive data found locus of control the best predictor of stress. Locus of control is defined here as 'people's general perception of the contingent relationship between their behaviour and events which follow their behaviour'. People with an external locus of control believe that events are only occasionally contingent on their own actions, often occurring because of fate or the powerful intervention of others. Those with an internal locus of control believe that

events are always contingent on their own actions (Rotter 1966). An internal locus of control was important in minimising stress, according to Capel's study, so it seemed very important to involve teachers in innovations, particularly since it has been shown that change 'per se' can be stressful whether it is positive or negative (Lucas, Wilson and Hart, 1986) and educational changes cause severe adjustment problems for some teachers (Dunham in Paisley, 1983). Changes, however, which teachers have little control over, and were not directly involved in their initial generation, could cause particular problems for those teachers with an internal locus of control (Kyriacou and Sutcliffe, 1980). Fielding (1982) in a study examining burnout in schools, however, found more burnout in schools with an external locus of control.

The implication of the research data on locus of control, according to Capel (1989) is that attempts should be made to make schools more democratic organisations in which the staff feel more in control of matters relating to the school.

This view is echoed by Kyriacou (1990) who stated that "research on teacher stress indicates that the important feature of the process of perceiving threat is the extent to which the teacher feels he or she has control over the job demands".

- **Coping Strategies**

The literature is well documented with examples of 'direct action' and palliative coping strategies, (Lazarus, 1976; Lazarus and Folkman, 1984b; Kyriacou, 1987. Lazarus describes 'direct action' as one which deals with the source of stress while 'palliative actions' attempt to soften or moderate the experience of stress.

Kyriacou's study (1987) revealed that three principal factors accounted for the coping strategies of the teachers in the survey - these are "try to keep things in perspective", "try to avoid confrontations" and try to "relax after work".

This study was supported by Freeman (1987) which showed that the most popular coping actions were "trying to keep things in perspective", "think objectively about the situation", "try to keep emotions under control" and try to take some immediate action on the basis of your present understanding of the problem.

Spooner (1984) in a survey of 296 teachers found the two most prevalent coping actions were "trying to keep things in perspective" and "developing realistic expectations".

Johnstone (1993) found in her research study that coping strategies used by teachers were largely in terms of support from family or colleagues or various means of relaxation. One in twelve people reported taking 'a glass of wine' or 'stiff whisky'.

Of some interest is the fact that in this large scale study over half the sample reported no coping strategies or no help given to help relieve work stress.

Dunham (1992) found the top two strategies in a study of three comprehensive schools were "setting aside a certain amount of time during the evenings and at weekdays, when I refuse to do anything connected with school" and "trying to come to terms with each individual situation".

D'Arcy (1989) however, reports on two studies which highlight the importance of social support. One reports that the most frequently mentioned coping strategy for dealing with stress was talking to other people, and in the other study respondents indicated that they would seek out supportive colleagues to whom they could turn. So although direct action and palliative strategies appear to be utilised, most frequently there is also evidence that social support and by implication the school support structure is also of importance. This aspect will be a feature of this study and particularly in the development of the stress management programme for the intervention study.

Washington (1989) identified stress-coping ideas for teachers which included the organisation and control of work activities; the anticipation of stressful situations; talking over the problem with a colleague or friend; deep breathing exercises; time off; learning to say no; making physical exercise a habit and in general being 'proactive' rather than 'reactive'. Washington emphasises the importance of each teacher developing a diagnostic/prescriptive stress-management plan.

Calderwood (1989) found role conflict and role ambiguity were major factors in teacher stress and believes that a high priority should be placed on stress management strategies. At the organisation level this could include the appointment of a staff counsellor, the adoption of sensitivity training for staff and a corporate culture which places a high value on the individual's worth. In his research Calderwood developed a programme of ten one hour weekly sessions in a comprehensive school but concluded that no structural mechanism on relieving stress at work was in place at the school and he felt that management did not fully understand the extent to which stress is a factor in health and efficiency. It seems therefore that the message from Calderwood's research is that stress management has to be taken seriously by management and that schools should adopt structures and solutions in order to reduce stress levels at the organisational level and the individual level. It is interesting to note therefore that this current research study intends looking at and comparing interventions at both the organisational level and the individual level (see chapter 12).

Chapter 4

Organisational Stress

ORGANISATIONAL STRESS

Schools as Organisations

Although the basic organisational structure of schools are similar to one another, their 'operating mechanisms' can be quite different (Lorsch, 1970: Child, 1984). The basic structure is concerned with how the work of the organisation is divided and assigned to individuals, groups and departments. This, therefore, involves the allocation of tasks of responsibilities to individuals, specifying and defining jobs, designing the formal reporting relationships, deciding on the number of levels of hierarchy and the extent of control of each member of the management team.

On the other hand, the operating mechanisms are designed to indicate to individuals in greater detail, what is expected of them. This would also seek to motivate them. The operating mechanism is, therefore, concerned with specifying expected behaviour in greater detail and attempts to ensure that the individuals strive towards the organisational goal. This would involve delegatory authority and providing a control system for objective setting, monitoring and motivating. While the basic structure of an organisation is highlighted by job descriptions and organisational charts, the operating mechanisms are shown through rules and procedures, information system, planning procedures and training and development (Huczynski and Buchanan, 1991).

Although, therefore, schools as organisations have to adhere to a basic structure within the guidelines laid down by the regional education authority, there is still considerable scope for differences in the implementation of that structure in relation to its operating mechanisms. It might be suggested that it is the operating mechanisms of the organisation which largely influence aspects such as climate, social support, school ethos and interpersonal communication. The literature shows that it is these factors which can contribute to occupational stress within

organisations are therefore the operating mechanisms within the school organisation will be afforded considerable attention in this study.

School Supports

It has been demonstrated that school supports can act as a buffer against stress (Lucas, Wilson and Hart, 1986). One of the most effective supports seems to be the levels of inter-personal communication within the school organisation (Trendall, 1989; Sarras, 1988).

Trendall stated that informal consultations with staff members was not enough and that teachers who experienced the most stress were those who had no-one in the school to discuss problems fully with. He went on to emphasize the importance of the school communication network as a support against stress, but pointed out that if the communication network was poor it could add to existing levels of stress through a process of depersonalisation (Trendall, 1989). Dunham (1980) also made this point and stated that the stress of pupil misbehaviour is often borne in isolation because teachers may feel that admitting to it is tantamount to admitting to being incapable teachers. Galloway (1989) implemented a study of matched schools where different stress levels existed. He found that the major difference between the two schools was that in one the headteacher encouraged inter-staff discussion on areas such as pupil indiscipline. The results of these discussions could then be used to implement organisational change and give greater support.

Sarras (1988) also pointed out that problems with communication increased levels of stress, for example staff not being told directly about decisions. In some schools this may be partly due to poor administration which has failed to ensure the information is circulated efficiently. Dunham (1980) found that many teachers felt stressed about not being able to air their opinions freely about matters affecting the school.

Wilkinson (1988) saw this as a prerequisite for increasing social support in schools and reducing stress.

Boytim (1988) advocated that support groups for teachers should be a feature of school systems and such groups will include; newcomers, retiring teachers, teachers experiencing loss, and general support groups for all staff.

In relation to the importance given to support groups, a study by Tunnecliffe (1986) compared two teacher stress management techniques; collaborative behavioral consultation and relaxation training. Analysis of teacher stress levels before intervention, after intervention, and at the follow-up assessment period showed greater effectiveness for the collaborative behaviour consultation groups than for a control group. Such an ongoing effect was not found for the relaxation training approach.

Role of School Management

Kearney and Turner (1987) suggested that leadership style and practices of headteachers and management influence levels of stress. Management are an important part of the school communication network and their approachability can be significant in determining whether a teacher feels isolated or not.

Gillet (1987) also found that headteachers had a key role to play in relation to teacher stress. She found that the provision of clear guidelines for staff; meaningful memos; following up on staff requests and organising a meaningful staff development programme were all useful in preventing teacher stress.

Similarly, a key role for the head teacher as a major source of support for staff, was found in a study by Schlansker (1987) whose principal argument was that headteachers must take the lead in providing teacher support.

In a study by Carson (1993) it was found that different perceptions existed between teaching staff and management. Teaching staff felt management were not supportive and had little awareness of classroom factors and of the implications of curriculum development. Management, on the other hand, perceived themselves as very supportive and thought they had a high profile in offering general consultancy. A mismatch like this between teaching staff and management represents a major potential for stress because it demonstrates that management may be unaware or immune to the problems of their teachers, or at least the teachers may perceive them to be so.

Leadership styles may significantly affect the levels of stress perceived by teachers. Management may differ in the approach they take to their staff, ranging from a democratic approach to an authoritarian approach. Related to this is management willingness to listen to staff points of view and to take their opinions into account in decision-making. Dunham (1980) and Cherniss (1980) have both put forward the view that excluding the teachers from the decision-making process is a source of stress.

Organisational Factors

There now is an increasing trend to study organisations in relation to stress and in particular occupational stress among teachers can now be viewed in an organisational context rather than in isolation (Cox, Boot and Cox, 1989). This is also highlighted in a study by Bacharach, Bauer and Conley (1986) who focused specifically on aspects of the organisation which lead to stress. Their results indicated that significant predictors of organisational stress were role ambiguity, the fairness or rationality of promotion and the behaviour of promoted staff towards class and subject teachers.

A number of studies have identified that 'work overload' is a significant contributor to stress in teaching (Dunham, 1992; Dewe, 1986; Trendall, 1989). In Trendall's 1989 study it was suggested that a great deal of this 'overload' stems from recent changes which have been implemented in the education system. Other factors associated with overload are:

(a) lack of adequate resources (Davies, 1986)

(b) pressure of time (Carter, 1987)

(c) lack of space (Kanga and Flynn, 1981)

(d) heavy administrative demands, especially paperwork (Litt and Turk, 1985)

Wilkinson (1988) studied a large comprehensive school and found role overload to be a major factor affecting performance. He also found that this was a greater problem at certain times of the year, such as in the preparation and marking of exam papers. The research demonstrated that this overload might result in teachers not being able to reach desired standards of performance which would have a negative effect of teacher self-esteem.

Klugman (1979) identified the 'fragmentation' factor as a contributor to stress. Teachers faced so much work overload they were forced to 'fragment' their activities, and there was not the means and the time to meet the demands of all the activities. Carter (1987) proposed time management as playing a part in stress. This is related to role overload and particularly to the 'fragmentation' factor identified by Klugman (1979). Teachers could benefit from instruction on how to maximise their time and organise it better so that they felt more control (Wilkinson, 1988).

Role conflict has been cited as a contributory factor to stress in a number of studies. This conflict can be within the school organisation or can come from external factors such as parents. For example teachers may be told to take classes in subjects such as personal development when they teach chemistry. They may also experience conflict when a parent's expectations for their child is way above the teachers. Cael (1978) pointed out that there is a degree of confusion over the exact role of the teacher. Marayz (1989) stated that this conflict is often caused by changing social

factors. Society and the family has undergone a transformation and this has brought about new expectations of the school and the teacher. In a Spanish study Esteve (1989) pointed out that as society was changing there was a corresponding increase in the teacher's responsibility to the community and the family. however, this had not been accompanied by greater resources and training to help the teacher to cope.

Cole (1989) and others have discussed the notion that teachers face an identity crisis as they have become more accountable to parents and society in general. The education system has been blamed for problems in modern society such as vandalism and football hooliganism.

Capel (1989) saw locus of control as the best predictor of stress, with an internal locus of control alleviating stress. Thus teachers should as far as possible be involved in all innovations since changes can prove stressful (Lucas, Wilson and Hart, 1986).

Teachers with an internal locus of control should be involved in the early stages of innovations (for example subject mergers) or they night face problems adapting to them.

Cox and Brockley (1984) identified five categories of job dissatisfaction, one of which was the school organisation. Some organisational aspects were also among the sources of teacher stress identified by Dunham (1992) for example, poor staff communication, role confusion, lack of non-contact time, and lack of information concerning educational changes. Brown and Ralph (1993) cited that among their six main categories of teacher stress, two were school management and administration and innovation and change. This included little real involvement in the decision making process, poor overall school organisation, poor models of communication, feeling of powerlessness, lack of information to facilitate change, and ineffective organisation of meetings.

Bacharach (1983), in a study of 45 secondary school organisations and 42 elementary school organisations, found significant independent variables, such as rationality of the promotion process; student/teacher ratio and role ambiguity. He suggests that the study has implications for alleviating stress by altering organisational structures and work processes.

Proctor (1993) found a significant association between school organisation, school climate and occupational stress, particularly among classroom teachers. This seems to support earlier work (Blase, 1983) which found from four qualitative studies of teacher work stress, that the importance of understanding stress as a powerful process affecting both individual and organisational behaviour, needs to be emphasised.

Read (1987) in fact found that the organisational structure of school systems was a contributory factor in teacher stress, and she suggested that staff development programmes should take account of this.

Brown and Ralph (1993) therefore assert that because of the organisational aspects of stress in schools, managing stress is a whole-school issue and would, therefore, require a modification of culture and attitudes in many schools and also in education authorities.

The Concept of Organisational Climate

The concept of organisational climate will be focused on in some detail because of its importance to this study. The development of the concept will be discussed, followed by a review of the instruments that have been used to measure it. Additionally Payne and Pheysey's Aston Business and Organisational Climate Index will be examined as it is the instrument utilised to measure organisational climate in this research. Further information on Payne and Pheysey's Aston Business and

Organisational Climate Index can be found in the Method chapter (chapter 7).

The important elements of organisational climate which will be described in this chapter include the following:

- The contributions of individual behaviour theories
- Management theories
- Organisational theories
- Development of organisational climate.

The concept of climate construct can be found in the work of Lewin (1936) who proposed that the dimension characteristics of a situation was a function of a person and of his environment. From the 1960s onwards there was considerable development of theoretical and empirical research into the concept of climate. It was seen as an important variable for understanding the behaviour of individuals in organisations. Litwin and Stringer (1968) argued that the concept of organisational climate evolved out of an attempt to apply a theory of human motivation and behaviour in organisations. 'Climate', they argued, described the effect of organisational life on the motivation of individuals in organisations, which in turn caused emergent behaviour that resulted in various consequences for the organisation in terms of performance and the retention or turnover of employees.

According to Litwin and Stringer (1968: p.187)

"Organisational climate is a concept describing the subjective nature or quality of the organisational environment. It can be perceived and experienced by members of the organisation and reported by them in an appropriate questionnaire?"

They also suggest that important determinants of organisational climate are leadership style/informal relationships within staff and communication between managers and their subordinates.

The concept is closely linked to Moos 'work climate' (1986) which examines work dimensions such as Relationships, Personal Development and System Maintenance and Change Dimension. These aspects, and indeed those highlighted by Litwin and Stringer are applicable to a range of work settings and work organisations.

The concept of 'climate' therefore can be appropriately used within the school situation in assessing the 'health' of the organisation and of the teachers employed within that organisation.

Individual Behaviour Theories

The individual behaviour theorists focused on the needs of people in relation to the work situation and the study of the expected effect of these needs on motivation and behaviour.

Lewin (1936) in his field theory identified certain situational variables that he called 'psychological forces' that affected the behaviour of human beings. He developed this to address the issue of social climate. Lewin (1936) also examined the effects of organisational properties, democratic, authoritarian and 'laissez faire' leadership practices and employees behaviour. This was further developed to provide an environmental focus Lewin (1952) in addressing human behaviour in relation to the psychological environment of that individual. This related the organisation environment to then motivation and behaviour of the employees in it.

Atkinson (1958, 64) followed this up and held the view that motivation was a function of the strength of the basic need of two situationally determined factors - the expectancy of attaining the goal and the perceived incentive value of the goal.

Maslow (1943) argued for a hierarchy of needs and these needs have their role in motivating employees at work. Once employees have satisfied their lower level

needs, they are expected to start looking at the satisfaction of upper level needs which usually make employees feel affiliated to, and accepted by fellow workers, recognised by their managers and being given the opportunity to fulfil some of their self-esteem and self actualization needs. This could play an important role in the motivation of employees in organisations and can be particularly relevant to the situation in schools at a time of increased motivation and economic 'restraint'.

Herzberg (1966) developed Maslow's theory by citing 'hygiene' factors which prevented an employee from becoming dissatisfied. Examples of this include company policies, interpersonal relations, working conditions and salary. Werzberg also cited 'motivators' which had the ability to motivate employees in organisations. This would include achievement recognition, responsibility and advancement. Thus Werzberg hypothesised that dissatisfying and motivational factors were anticipated to have an input on the motivation and behaviour of employees in various organisational settings.

A further hint of variables related to the work environment was provided by McClelland (1961) who identified socially developed motives that influenced employees' behaviour - the need for achievement, need for affiliation and the need for power. Vroom (1964) developed an ' expectancy theory' which assumed that the behaviour of a person to perform an act was a function of the strength of the perceived probability of receiving an outcome given a particular act and the effective orientation toward particular outcomes.

A summary of the contributions of these behavioral individual theorists reveal common aspects. They all, to varying degrees, take the perspective of focusing on individual's needs, particularly those related to their organisational setting as being possible factors behind the motivation and behaviour of employees. This clearly represents a foundation for understanding how employees behave at their workplace. The limitation of these, however, is that they do not necessarily take account of the linkage between individual, motivational and organisational outcome variables. This was encapsulated by Schein (1965) when he asserted that *"We*

cannot understand the psychological dynamics if we look only to the individual's motivations or only to organisational conditions and practices. The two interact in a complex fashion, requiring us to develop theories and research approaches which can deal with systems and interdependent phenomena."

Management Theories

A number of studies have focused on the effect of managerial practices in the workplace. McGregor (1960) examined the assumptions managers hold about controlling their human resources. He identified two extreme sets of views which reflected styles of management. These he labelled Theory X or autocratic, and Theory Y or democratic. The former identified the traditional view of direction and control of employees through the exercise of authority. Theory Y emphasised the principle of integration and self-control.

Blake and Mouton (1964) referred to the term organisational culture and organisational development. They developed a 'managerial grid' but failed to provide any thorough analysis of the way in which individual and organisational elements might be linked to a total organisational perspective.

Early theories of management have been labelled 'classical management theories' (Baker, 1972) because they offered simple principles which could be applied generally. These principles are concerned with the method of sub-dividing and allocating to individuals all the various activities, duties and responsibilities essential to continuous control of the work of individuals so as to secure the most effective realisation of the purpose (Urwick, L Organisation as a Technical Problem, paper reprinted in L Gulick and L Urwick (eds) 1933), Papers on the Service of Administration, Columbia University Press, New York, 1137, p.49. According to Huczynski and Buchanan (1991) these principles therefore enunciate bureaucratic

forms of control, closely prescribed roles of clear and formal definition of procedures, areas of specialisation and hierarchal relationships.

Spender (1989) viewed organisations as bodies of knowledge and managers as creators and users of that knowledge. The importance of Spender's work is that, in critically appraising classical management theory, it can be demonstrated that *"there are no universally valid prescriptors on how to organise and manage since each organisation is different"* (Huczynski and Buchanan, 1991 p.446).

In relation to schools Davis and Thomas (1989) on reviewing the literature on the influence of the school managers found that effective management rested to a great extent on the identification of clear aims by the headteacher and the ability to communicate these aims to the staff. Ianni and Reuss-Ianni (1983) found that the leadership role of the principal was a critical factor in itself in the general perception of the school.

Organisational Theories

Writers on organisation theory have taken two approaches to the study of organisations. The first was an 'open system' and the second was a 'closed system' approach. The first saw organisations as being open to and interacting with their external environmental variables. The latter was a classical approach that viewed organisations as closed to outside environmental forces. Maximising economic efficiency was seen as the goal of the closed system theorists with no concern fro the internal environment of the organisation (Taylor, 1911; Fayol, 1949).

The work of March and Simon (1958) dealt with what might be considered 'climate'. The key concepts of their theory were those relevant to decision making and organisational choice such as 'uncertainty avoidance' and 'bounded rationality'. The concept of uncertainty avoidance is a subjective concept and the idea of bounded

rationality begins to approach a perceptual definition of the work environment. However, both concepts were identified in economic terms and their effect on human behaviour was not clearly demonstrated.

Burns and Stalker (1961) were interested in the organisational practices in relation to stable and changing environmental conditions. They described two types of management systems; mechanistic and organismic. A mechanistic management system was appropriate for relatively stable conditions, while an organismic one suited conditions of change. The implication of the difference between the two systems for the individual was in the degree of his commitment to the organisation. In the mechanistic systems, the employee was told what he had to do and also told how to do what is expected of him. In contrast, the organismic system has extremely flexible authority, task allocation, and communication where the individual is expected to consider himself as fully involved in performing any task appearing over his work setting.

Lawrence and Lorsch (1967) looked mainly at the objective framework of organisations such as activities of functional units and formal structural characteristics or organisations, and developed a theory of differentiation and integration in organisations. They analyzed the degree of an organisations internal differences as related to its ability to deal effectively with different environmental conditions, and the corresponding integration needed to achieve high level of performance. Differentiation according to them was the state of segmentation of the organisational system into sub-systems, each of which tended to develop particular attributes in relation to the requirements posed by its external environment. Integration was defined as the process of achieving unity of effort among various sub-systems in the accomplishment of organisation's task. Lawrence and Lorsch's main finding was that differentiation and integration varied according to the degree of certainly or uncertainly in the environment.

To summarise one can say that studies of the motivational psychology's perspective have contributed to the development of organisational climate construct as

evidenced in their individual behaviour theories, management theories, and organisational theories. The individual behaviour theorists have dealt with the general needs and objectives of human beings, particularly job related needs, which would have an influence on the motivation and behaviour of employees at work. The management theorists' main interest has been with describing the indirect effects of management and supervisory practices on the attitudes and behaviour of subordinates. The focus of the third category, the organisational theorists, has been on understanding the indirect effects of formal organisation structure and procedures, task definition, and other structural variables on the motivation and behaviour patterns of organisational members.

The concept of organisational climate, therefore, was developed on the basis of its ability to provide a useful insight into analyses of the linkage between individuals and their organisational settings. The concept provides a useful bridge between theories of individual motivation and behaviour, on one hand, and organisational theories, on the other.

The Development of Organisational Climate

Various researchers and writers from a wide spectrum of behavioral sciences have been concerned with studying climate in organisations. Although there is general agreement about the significance of the concept in organisational research, there has been much less agreement among researchers on what is meant by the term 'climate'. However, the difficulty, complexity, and the 'fuzziness' that surround the concept has value in helping to understand human behaviour in organisations and can have particular relevance to teachers and school organisations.

Behavioral science researchers have considered the concept of organisational climate as representing either a property of the **organisation** or a property of the

organisation-perceiving **individuals**. Howe and Gavin (1974) for instance, have developed a continuum of organisation-person variables for organisational climate.

An organisation variable describes 'the properties existing in the organisation with no concern for the cognitive system of members of that organisation'. In contrast, a person variable describes 'the cognitive perception of organisation individual members'. According to this continuum, organisational climate was classified under five categories:

(i) totally an organisational variable,
(ii) mostly an organisational variable,
(iii) equally an organisational variable and a person variable,
(iv) mostly a person variable, or
(v) totally a person variable.

The definitions of organisational climate are based on perceptions of organisation members **and** the attributes of their working organisations. In fact, it was thought that this method gave more meaning to the variables of work environment by including the **person** variable. This way of looking at organisational climate seemed to be quite realistic. Climate definitions that were based solely on objective organisational attributes (e.g. rules, authority, structure, decision making and the like) seemed to be exclusively organisation centred and ignored the human factor as spelled out in perceptions of employees that determined the way they saw and interpreted the features of their work environment.

Climate as a person variable classification emphasises the persons' interpretation of organisational situation than on the actual characteristics of the organisation. This category regards climate as an attribute of the individuals' working in the organisation. Schneider (1973) postulated that:

"The concept of climate...may best be described as personalistic; climate is an individual perception. There was no attempt to restrict the climate definition to

perceptions shared by members of a work group or organisation. As stated elsewhere (Schneider and Bartlet, 1970)'...what is psychologically important to the individual must be how he perceives his work environment, not how others might choose to describe it (p.510)'.

This quotation clearly shows that climate is treated totally as an individually-based concept with no space left for collective perception of that climate by group members. Therefore, the unit of analysis in this category was the individual per se and could not be extended to the total body of people in the organisation.

If the concept of climate, is viewed as an organisational attribute, it would make it more difficult to be identified other than a broad-spectrum of organisational attributes or components of situational variance. The situational variance in the total organisation includes items such as the organisational context, structure, system values and norms, process and physical environment (James and Jones, 1974). The majority of research on organisational climate is ultimately concerned with human behaviour, satisfaction, and performance. Several researchers have argued that the relationships between elements in the work environment and human behaviour depend on the degree of importance the individual attaches to those elements (Schneider and Bartlett, 1970; and Schneider, 1973). Therefore, what would be of significance to a person is how he perceives his work environment.

The remaining two approaches to climate both emphasises the role of the individual in the perception of organisational climate. When regarded as an attribute of organisation, the suggested term 'organisational climate' can be used. When regarded as an individual attribute, it is recommended that a new designation such as 'psychological climate' is given (James and Jones, 1974). Psychological climate, therefore, seems to be similar to organisational climate although there are differences in the repetitive levels of their explanation (individual versus organisational). The perceptual approach to measuring organisational climate has generated the greatest amount of theoretical and empirical research.

In order to clarify the distinction between organisational and individual or 'psychological' climate, Joyce and Slocum (1979) stated that "whether we speak of an organisation's climate or the climate of a division or subgroup of the organisation, all climates are ultimately perceptual and psychological in nature!" p.317. As climate may exist at the individual 'psychological' level, it may also exist at group and/or organisational level. This leads one to accept, at least for the purposes of the present study, that the appropriate view of organisational level (Field and Abelson, 1982). This leads one to accept, at least for the purposes of the present study, that organisational climate can be viewed as both a personal and organisational variable.

The argument of whether organisational climate reflects the attributes of an **organisation** or of **individuals** in that organisation (Guion, 1973) would be answered by replying that it was neither exclusively. The concept of climate is a joint function of situational and individual variables.

It is proposed to define organisational climate for the purposes of the present research as the 'summary perceptions of the attributes of the work setting'. These perceptions are multidimensional, and descriptive in nature. Furthermore, the perception of organisational climate by members within organisations has become an important way of understanding the effect of organisational practices and procedures on the behaviour of employees. Therefore, it is not surprising to find that most researchers do seem to agree that organisational climate can be measured in terms of employees' perceptions of different facets characterising their work situation. The perceptual approach to measuring climate has been adopted by the vast majority of climate researchers. They advocate using it to measure climate in various organisational settings (Litwin and Stringer, 1968; Meyer, 1968; Thornton, 1969; Friedlander and Margulies, 1969; Schneider and Bartlett, 1970; Campbell et al, 1970; Payne and Pheysey, 1971; Pritchard and Karasick, 1973).

Al-Shammari (1990) suggests that differences in climate perceptions can be related to changes in the orientations and values of organisational members throughout

their service in the work organisation. This implies that workers' values and expectations are not fixed and can change during their working careers.

Schneider and Hall (1972) argued that climate perceptions emerged as a result of individual's numerous activities, interactions, feelings and other daily practices in the organisation. They also suggested that perceived climate could be related to a number of output variables such as job satisfaction and performance.

Assessment of Organisational Climate

A climate literature review revealed a number of instruments that have been developed and used by researchers to measure climate in organisations. In this regards, one can note that all these climate instruments reflect the model of climate held by their developers. However, the instruments that were most frequently cited or used in the literature were those of Halpin and Croft (1963), Litwin and Stringer (1968), Schneider and Bartlett (1970), Campbell et al (1970), Payne and Pheysey (1971), and Lawler et al (1974).

The climate instrument of Halpin and Croft (1963) was designed mainly to study climate in public schools. Its authors used a questionnaire which contained eight dimensions of climate: disengagement, hindrance, esprit, intimacy, aloofness, production emphasis, thrust and consideration. Each one of these dimensions encompassed a group of items (questions) representing that dimension. Finlayson (1975) developed the Halpin and Croft climate instrument for secondary schools in the UK in order to produce standardised parameters which would enable one school to be compared with another.

Litwin and Stringer (1968) made a major practical and theoretical contribution to the area of organisation climate. At the theoretical level, they added to the notion of work environment properties the idea that these properties must be perceived by the

people who live and work in that organisation. These properties were assumed to influence the motivation and behaviour of employees. At the practical level, they developed a 50 item questionnaire (Form B) to measure perceptions of organisational climate along nine dimensions; structure, responsibility, reward, risk, warmth, support, standards, conflict and identity.

Another systematic study of climate factors was reported by Schneider and Bartlett (1968). Their research sample was a group of managers in two life insurance agencies. As a result of factor analysis six climate factors emerged: managerial support, managerial structure, concern for new employees, intra-agency conflict, agent independence and general satisfaction.

Lawler et al (1974) distributed a questionnaire to 291 scientists in 21 sub-samples of 117 research and development organisations. As a result of factor analysis, five climate factors describing organisations were obtained; competence, potence, responsible, practical, risk oriented and impulsive.

In relation to organisational climate in schools, Anderson (1982) in reviewing the literature defines the terms in relation to the interactive life of the school. Little (1982) found, following a study of organisational characteristics, that the staff in successful schools tended to be more communicative with each other and with management. According to Little, school management were in a key position regarding establishing and maintaining a successful school climate.

Bassey and Yeomans (1989) designed an organisational climate instrument which stemmed from the earlier work of Talcott Parsons (1960). Talcott Parsons identified four factors based on the following premises - that suitable resources are acquired for the enterprise; that common goals and shared values exist among members of the enterprise; there is a sense among the members of integration and working together; the enterprise relates to its local environment. Bassey and Yeomans developed their points and drawing on their experience of schools designed a climate questionnaire. It consisted of seventeen items looking at aspects relating to

resources, timetabling, staff deployment, curriculum policies, school rules and procedures, communication and school ethos. This instrument however is still at the pilot stage and is not widely accepted at this stage.

Proctor (1994) asserts that many studies examining school climate have been qualitative in nature, with only a few using statistical quantitative designs - this, he argues, has led to an imbalance in the type of data and results available. Clearly, therefore, it is necessary for studies into school organisational climate to adopt methodologies which are based on both questionnaire and interview techniques.

In their analysis of the different climate instruments, Campbell et al (1970) suggested that these instruments were characterised by four common dimensions which consistently re-appeared across all organisations and thus could be considered the main factors of climate. These major factors were:

(i) autonomy;

(ii) structure;

(iii) reward; and

(iv) consideration, warmth and support.

Payne and Pheysey (1971) reconceptualised the Stern's Organisational Climate Index (1956), which was developed mainly as a measure of the college environment, and applied it to business organisations. Their sample was 120 junior managers from more than 100 different companies. Two main factors were revealed; organisational progressiveness and normative control.

The Payne and Pheysey (1971) instrument is perceived as being particularly appropriate for use in schools (see Method chapter - chapter 7). It provides a number of dimensions, each of which can illuminate aspects of school organisational climate. It was necessary to modify some of the terms and language used to make it more appropriate to the education sector. The instrument, complete with this revision was piloted by the writer with a group of experienced teachers from both

promoted and non-promoted sectors in schools, to test for understanding of the revised questions.

It was decided to use this instrument to measure organisational climate because on examination of the twenty dimensions it was felt that many would have some relevance to teachers and to school organisation. It was felt this would apply particularly to dimensions such as job challenge, management concern for employee involvement, readiness to innovate, and questioning authority particularly since this study intended to focus on organisational and curricular changes. That decision does not however suggest that the B.O.C.I. is the most valid or appropriate instrument to use in this study. An examination of the history of the B.O.C.I. reveals that it was developed essentially from other instruments which were used for different functions in a range of different environments. This is an important point because organisational climate as perceived by the group who developed the B.O.C.I. (Payne and Pheysey, 1971) relates to organisational measurement from the 'standpoint of the relationship between the perception of the environmental and objective measures of the organisations structure' (p.78). Thus two aspects have to be addressed by the instrument - perceptions of the environment and organisational structure. While these factors are of importance some other considerations need to be acknowledged. One is that the authors of the instrument appear to neglect psychological perspectives and particularly personality constructs. Of the 254 items which were extracted from Stern's OCI (1956) and sorted into 24 different groups no mention is made of personality nor psychological constructs. The conceptual areas which were deemed to be appropriate were those which assessed some "fit' into the business organisation' (p.79). Yet organisational climate is the product of interactions between the organisational environment and the individuals within that environment therefore some attention to personality and psychological variables should have been considered.

Additionally the instrument emerged from Stern's O.C.I. (1956), this was a general instrument developed from an earlier more specific instrument - the College Climate Index (C.C.I.). A point which can be made here is that the environmental and

organisational aspects of the workplace and particularly the school will likely be vastly different in the 1990s compared to the mid fifties when the instrument was originally developed. Although the C.C.I. was reconceptualised in 1971 by Payne and Pheysey no new items were added - they in fact selected 254 items from the original 300.

It might also be considered that the number of revisions and reconceptualisations which the scales were subjected to might in fact be detrimental to its face validity, particularly since these revisions meant adaptations to make the instrument suitable for different environments and types of organisations. It is also interesting to note the procedure used by Payne and Pheysey to reconceptualise the O.C.I. into the B.O.C.I. Starting with the 300 original items in the O.C.I. they 'sorted them into groups of items which seemed to have a common meaning or interest' (p.78). This suggests a fairly subjective procedure which in fact resulted in the six broad groups i.e. authority, restraint, work interest, personal relations, routine or control and the wider community. Again the 254 items which were selected from the original 300 were also subjectively sub-divided into 24 conceptual areas. These conceptual areas provided the essential framework for the B.O.C.I. This is an extremely important issue as these 24 areas provide the focus for each of the questions in the B.O.C.I. and on examining the specific questions some doubts may be cast as to whether the questions actually relate to its specific conceptual area or indeed to more than one area. The items which actually make up these different conceptual areas do not appear to have been rigorously tested. For example each item was administered only to 120 middle managers - arguably a small sample, the sample was however spread over 100 different companies which did help at least to sample a spread of different organisational environments.

An analysis of variance between the Aston B.O.C.I. and another similar instrument the Brum B.O.C.I. shows that 15 of the 24 conceptual groupings differed significantly between the two instruments, 13 of these differences at the .01 level. One example of these differences was the conceptual area described as 'leaders psychological difference' and this does bring into question whether the questions relating to 'L.P.D.'

are actually valid. If one examines for example the actual items included in the scale to assess leaders' psychological distance these doubts are confirmed. The L.P.D. items are 'management here are always addressed by their surname'; 'it is necessary to be polite to stay out of trouble here'; 'people here are not likely to accept managerial ineptitude without complaint or protest'; when people dislike policy they let it be known in no uncertain terms'; and 'people avoid direct clashes with senior management at all costs'.

It can be argued that all of these items do not directly and solely relate to leaders' psychological distance. For example ' when people dislike policy they let it be known in no uncertain terms' may be influenced by other factors within the organisational environment other than leaders' psychological distance. This assertion in fact can apply to other questions contained within this scale. The dimensions identified by Payne and Pheysey should therefore not be accepted fully as the most appropriate measures of organisational climate.

In view of the validation procedures and particularly the fact that the B.O.C.I. began as a scale measuring college characteristics any interpretations of responses from the use of the B.O.C.I. should be treated with some caution.

In the present study however organisational climate is not the only variable influencing the outcome as other measures such as the stress measure (Psystress) and the personality scale (E.P.I.) were also considered alongside the B.O.C.I. If the study were to solely focus on organisational climate then other climate and culture instruments in addition to the B.O.C.I. would need to have been considered.

It was also decided for this study, not to include an independent questionnaire on leadership style. The literature has shown that organisational climate is a variable independent of management style. It refers to 'macro' perceptions (Litwin and Stringer, 1968) people have of their work environment while leadership refers to 'micro' perceptions of a specific situational dimension. Although clearly there will be

a partial relationship between 'organisational climate' and leadership behaviour, the two do appear to be conceptually independent of each other.

Indeed the instrument selected for this study, 'The Business and Organisational Climate Index' shows a number of dimensional factors that relate to the behaviour characteristics of leaders in organisations.

Payne and Pheysey's Business and Organisational Climate Index is considered appropriate for use in schools because its dimensions are revealing of aspects of the school organisational climate. Some modification was needed for some of the language and terms to make it appropriate for the education sector.

It identifies 20 climate dimensions which are revealing of the school organisation. These are: leader's psychological distance, questioning of authority, egalitarianism, management concern for employee involvement, open-mindedness, emotional control, future orientation, scientific or technical orientation, intellectual orientation, job challenge, task orientation, industriousness, altruism, sociability, inter-personal aggression, rules orientation, administration efficiency, conventionality, readiness to innovate, community.

In reviewing the literature a number of general points have been raised about factors of the school organisation which cause stress for teachers. Payne and Pheysey's Business and Organisational Climate Index identifies precise areas of school organisation with make up its organisational climate and should thus enable specific climate to be highlighted. This would help in the development of the training programme which accompanies this study (see chapter 11).

Organisational Culture and Organisational Climate

It is important to differentiate between organisational culture and organisational climate. In this study climate was chosen because it was felt it relied more on the perceptions of the individuals within the workplace and could be implemented more readily and was more within the scope of the intervention programme than culture which is clearly a more enduring and all encompassing variable.

Handy (1993) refers to organisational culture as a pervasive way of life or set of norms found within an organisation. The culture of an organisation therefore relates to the deep-set beliefs about the way work should be organised, authority exercised, degree of formalisaton and other aspects including control, planning and incentives. It can be suggested therefore that an analysis of the culture of organisations is a valuable area of research because of the growing awareness that cultures are powerful in influencing behaviour. Handy describes four main types of culture - power, role, task and person and that each of these can be described as a different but effective types of organisational culture.

The power culture depends on a central power source in which management have a key role. The role culture describes a bureaucratic organisation which has a heavy emphasis on procedures and rules.

The task culture is one which is job orientated which means that groups within the organisation can be formed for a specific purpose and abandoned when the task is complete. The person culture describes the organisation which exists to support and help the individuals within the organisation develop. In relation to this four factor classification described by Handy, schools can display elements of all four within their organisations. It is possible therefore for a school to be task, person, role or power in its culture.

Handy suggests that the culture which emerges in an organisation depends on a number of factors including history, size, technology, goals and objectives, the environment and the people. Culture therefore refers to the characteristics of an organisation. Organisational culture has received considerable recent attention because it is seen as a method of examining the informal structures within organisations.

Kilmann, Saxton and Serpa (1985) define organisational culture as the shared philosophies, ideologies, values, assumptions, beliefs, expectations, attitudes and norms that knit an organisation together. One of the key concepts in culture therefore is the notion of 'a shared philosophy'. Clearly the more widely the philosophies are shared within the workforce, the more influential the culture within the organisation.

Gray and Starke (1988) suggest that organisational culture can be identified through rites and ceremonies, for example, how the organisation deals with specific events. It can also be identified through norms, in terms of working habits and rewards, and also through symbols such as the methods of communication used by the organisation. The myths which prevail within the organisation are also important, these often provide a historical insight into the organisation. The socialisation process also relates to culture, this can be witnessed in the treatment of new members of the workforce and also of some importance is the language used by the workforce such as the use of jargon. The final aspect of culture in Gray and Starke's factors is the taboos of the workplace, these can often be identified by the manner in which management are addressed by the workforce.

Cultures within organisations can change over time, particularly with the introduction of new members, management changes and changing values. It should be noted however that cultures are complex because of the different facets which contribute to a culture from within the organisation and also the outside social factors which can influence the cultures of organisations. It is suggested that effective cultural change

can take years although some superficial changes can be made relatively quickly (Gray and Starke, 1988).

In relation to identifying and measuring organisational culture Wilkins (1983) describes this process as essentially a cultural audit, very similar to a financial audit. This suggests that an assessment of culture should be an all embracing exercise in order to obtain some measure of the collective benefits of the workforce which in essence contribute to the culture of the organisation. Hellriegel, Slocum and Woodman (1996) suggests these collective beliefs consist of the following

- routine behaviours - how people interact with each other and the frequency of these interactions.

- norms - these are the values shared by the workers within the organisation.

- dominant values of the organisation.

- philosophy - that is the underlying views which underpins the organisation.

- rules of the organisation.

- feeling or climate conveyed by the organisation.

It is necessary to identify each one of these factors as they only provide a view of the organisational culture if they are considered collectively as none of these factors individually can provide a measure of culture.

Thus in this study organisation is measured through organisational climate and although the instrument used, the B.O.C.I., is fairly comprehensive built both in the number of questions it asks of respondents and the number of conceptual factors it identifies, it still falls considerably short of assessing the culture of the organisation.

It can be suggested therefore that if the aim of the investigation was to develop an appropriate whole school intervention then it may have been more useful and more possible to promote change, if organisation culture was measured instead of only one element - organisational climate.

As suggested earlier however it was felt that climate would be more amenable to change than culture. Indeed Drucker (1991) questions whether the deep core values of organisational culture are amenable to change at all. As climate is essentially the feelings or perceptions of the workforce it was felt these would be more amenable to change, particularly within the scope of this present study.

Organisational climate is discussed in detail in an earlier section in this chapter but it will be referred to again here particularly in relation to the differences between organisation culture and climate. Organisational climate can be defined as a relatively enduring quality of the internal environment of an organisation that is experienced by its members, influences their behaviour and can be described in terms of the values of a particular set of characteristics of the organisation. The climate therefore within an organisation is both a consequence and a determinant of motivation within the workforce and it is therefore important that management have an understanding of the climate in the workplace. This is particularly important if the organisation is undergoing changes.

It was felt for this research that organisation climate may be a more appropriate aspect of an organisation both to measure and attempt to influence changes. Organisational culture, as already indicated, is more all embracing and more enduring than climate. Gray and Starke (1988) suggest that it may take a number of years to influence culture because of the complexities of the concept of organisational culture. It should however be pointed out that it is desirable in the implementation of a whole school programme in schools to obtain some indication of the culture of the school. This kind of information can provide relevant pointers to both the construction and implementation of the programme. It was hoped however that the present study by identifying climate perceptions would also help to influence

desirable change, particularly since the instrument, despite its shortcomings (discussed earlier) is comprehensive in its attempt to identify the perceptions of the workforce in relation to both the working environment and the management.

Organisational and Educational Change

In recent years a major new source of stress has been introduced into teaching as the government has implemented wide ranging reforms and changes in education in the attempt to enshrine news values and ideologies. The pace and extent of these innovations has been recognised as a source of stress in a number of studies (Dunham 1992; Tollan, 1987; Tollan, 1990; Capel, 1989; Cole, 1989; Brown and Ralph, 1993; Cooper and Kelly, 1993).

Dunham's study identifies a number of sources of stress which have resulted from the educational changes, such as having to teach children of a much wider range of abilities and coping with major curricular change.

The issue of 'control' is very significant for teachers (Capel, 1989). Pupil unpredictability and bureaucratic decision-making have been identified as stressful for teachers precisely because they lessen their control over the situation. However, recent government policy has had the effect of reducing this control in relation to the curriculum. This is seen in the introduction of the National Curriculum in England and Wales and the 5 - 14 Programme in Scotland. A core curriculum has been introduced making it compulsory for pupils to take certain subjects. Standardised testing is also being introduced for 7, 11 and 14 year olds and school results are now published which has led to league tables of school results. School boards have been established (School Boards) Scotland Act, 1989 which gave parents a say in the running of schools. At the same time expenditure and budgeting matters have been under the control of the central regional education authority and individual schools have had little real power in this respect. This, however, changed

(Education Act 1993) with Devolved Management of Resources in which the schools now have more responsibility for budgeting matters, and how they allocate and utilise their resources. Teachers are faced with increased role conflict as they have become more accountable to a variety of sources and are losing a great deal of their individual autonomy, which has led to questions of their role effectiveness (Trendall, 1989; Cole, 1989; Esteve, 1989; Badger, 1994).

Cole (1989) talks of an 'identity crisis' for teachers as society in general places more blame on teachers for the failings of its children. He says that to a great extent teaching has lost the respect it once had and that this is in part due to society evaluating worth and status in terms of income. Teacher morale is in many cases low and disillusionment has been heightened by the fact that the changes have been 'imposed' on them and they have not been given an opportunity to express their opinions or make any suggestions (Cherness, 1980; Capel, 1989).

Cooper and Kelly (1993) conducted a major piece of research among 2,638 headteachers and found items associated with educational change such as resource management, role of education authority and staff relationships to be significant factors. The researchers acknowledge that their study was conducted before the full extent of the recent Education Legislation had become known, but indicate that these legislative developments have resulted in a substantial extension of the factors show in their study to be causes of concern to the group in this large scale survey. They suggest that

"the impact of developments such as the National Curriculum, local management of schools, assessment and testing arrangements and open enrolment...at such a rapid rate...such changes of role and function are already showing that the levels of stress damage in the occupational group (in this survey) may by now be only the tip of a much larger iceberg"

O'Brien and McGettrick (1995) asked principal teachers from forty five schools which aspects of support for curricular change they had experienced and which had proved

most helpful. The responses showed that the sample (165) valued staff development of a practical direct nature with quality support materials relevant to the curriculum. It was interesting in this study that respondents experiences of school management of curriculum change varied from "didn't get any support from management whatsoever" to the situation where whole-school in-service workshops on managing change were practiced. The general responses from this research seemed to indicate that teachers appreciate 'experts' developing relevant materials and conducting quality in-service programmes in schools on relevant curricular issues.

Henkin and Wanat (1994) developed the concept of problem solving teams (PST) and their influence with regard to organisational performance in restructured schools. They provide a case study example in which they suggest the following as essential for team effectiveness: committed management; teachers trained in job-specific skills and problem solving skills; a mission with defined responsibilities and adequate authority to identify both causes of and solutions to problems; a clearly delineated purpose; possessing the required resources in terms of manpower and technology to analyse and solve problems; open communication between team members at all times; small team of about six people and close co-operation with the other teachers in the school. Their study found that problem solving teams appeared to play an increasingly important role in terms of quality improvement processes and general organisational performance and were an effective vehicle for change in schools. This was particularly the case when there was some need for a re-definition of 'common codes of co-operation' (p.135). Interestingly Henkin and Wanat found that problem solving teams may counter the impact of mechanistic structures that 'inhibit the flow of information, keen individuals and groups isolated and reinforce preconceptions. Problem solving teams are clearly an interesting concept particularly during periods of re-organisation or indeed in helping a school prepare for re-organisation.

In relation to re-structuring a school organisation, the National Association for Secondary School Principals (1992) an influential leading group in the United

States, identified collaborative leadership and management through school decision making and team work as essential elements of restructuring.

Huczynski and Buchanan (1991) describe mechanisms which relate to organisational change. These include interdependencies which are facets of an organisation, thus change in one aspect would create pressures for adjustments in other aspects: conflicts and frustrations, which arise if the objectives of the managers conflict with the needs and aspirations of employees; time lags which refers to some parts of the organisation changing more rapidly than others.

Resistance from organisational change can come from a number of sources. Such sources described by Bedeian (1980) include parochial self-interest. This refers to individuals attempting to maintain the status quo with which they are content - such changes may be perceived in terms of loss of power, approval, status and security. Another factor influencing resistance is misunderstanding and lack of trust. This could arise due to lack of adequate communication regarding the changes and can increase defensiveness, thus reducing further effective communication about the changes.

Other factors relating to resistance to change cited by Badeian include contradictory assessments among the staff as to the benefits, or otherwise, of the changes and a low tolerance of change. In relation to low tolerance of change Badeian argues that some individuals have a very low tolerance of ambiguity and uncertainty - factors which can accompany change. This raises an interesting dimension in respect of individual's cognitive styles.

Borg (1990) in a review of the literature, argues that "in the light of recent and ongoing changes in schools and their curricula as well as the prevailing working conditions of teachers, our present understanding of stress in teaching needs to be based on updated information" p.103.

Badger (1994) looked at teacher stress in relation to their perceptions of the way in which an important curriculum innovation - the 5 - 14 programme - was being

implemented in one Scottish region. Badger found that the 5 - 14 programme is an issue which is perceived as stressful among many teachers at all levels and 65% of the sample indicated they felt 'uncomfortably stressed' by the 5 - 14 programme with 25% of all class and headteachers feeling 'extremely stressed' over its introduction.

The specific aspects of the 5 - 14 programme which the sample found stressful were time demands which meant having to work at home to keep up with preparation; unrealistic timescale and having too little control over 'the speed and direction of the programme'. Badger concluded from the study that a re-appraisal of the organisation, support and facing of innovation at school, local authority and national level was necessary.

McHugh and Kyle (1993) argue that the increased pace of change and enhanced levels of competition within education have impacted upon all schools in Britain and have brought added pressures to the profession. They describe in particular the effects of the Education Reform Act, the National Curriculum (5 - 14 Curriculum in Scotland) and the Local Management of Schools. This point is supported by Jones and Hayes (1991) who believe that the local management of schools has increased administrative workloads to a great extent. McHugh and Brennan (1992) suggest that this has caused uncertainty in the teaching profession with the threat of school closures and mergers a further additional source of stress.

McHugh and Kyle (1993) found in their study of schools in Northern Ireland that the key effects of organisational change was that many teachers felt a loss of confidence; were tempted to take time off work; experienced changes in their consumption of tea/coffee and alcohol consumption and had support networks which permitted the discussion of school problems. They concluded that many teachers are experiencing high levels of work related stress and a high proportion of this stress is caused by organisational change.

Their study suggested to them that it is essential that headteachers and their staff acquire and develop sufficient professional and administrative skills which will further add to their coping capacities.

Hart, Wearing and Conn (1995) obtained illuminative data in a large scale study involving 4,072 primary and secondary teachers. Their research programme presented the question "will an effective discipline policy improve student misbehaviour and result in a reduction of teacher stress? The interesting conclusion which was reached was that "overall these students showed that there is little point in trying to reduce teacher stress by reducing student misbehaviour. Rather it is more appropriate to develop a supportive organisational climate that enables teachers to cope with the student misbehaviour that confronts them.

It is therefore suggested in this present study that this premise can be extended to stress management in general and that a supportive organisational climate is an essential prerequisite for dealing with teacher stress.

Chapters one to four of this study have therefore presented the literature background, to this research on 'school organisation, teachers work stress and the effect of an intervention programme'. The next chapter will provide some specific background points which will form the focus for examination in this research.

Although a great deal of research activity has already been achieved in this field the literature review does suggest that areas of confusion and contradiction still exist particularly in relation to dealing with teacher stress within the school organisation. It is hoped therefore this study will help to examine this aspect in a manner which can provide a professionally relevant applied model to help teachers and management deal effectively with work stress from both individual and whole-school perspectives.

Chapter 5

Background to Study

BACKGROUND TO STUDY

This research aims to construct a professionally relevant and appropriate in-service programme which can be implemented with a whole school staff. The development of this programme will be directed by the results from three preparatory studies each focusing on key aspects of work stress in schools. It should therefore be possible to construct an applied model of dealing with work stress in schools. This research therefore aims to undertake an examination of work stress in schools, develop an in-service programme applicable to the whole staff, evaluate the effects of the programme and construct an applied and applicable model of dealing with work stress in schools.

The starting point for this research was initially obtained from the literature which clearly indicated that work stress within the teaching profession was an area worthy of further investigations (Johnstone 1990). Such investigations however could have examined a range of different aspects associated with stress generation and stress responses in relation to the work of teachers in schools (Dunham 1984). It was therefore decided to identify a focus for the research and it was felt on examination of the literature (Dunham 1984, Tollan 1990) that the development of an in-service stress management programme would be an appropriate focus for such research.

The relevance of the above focus was further emphasised as a crucial area of investigation and development because of the educational changes which were taking place at the time the research was initially conceived. These changes

included curriculum innovation such as the 5-14 development programme, the development of on-site support units to accommodate diverse educational needs, the introduction of school boards accompanied by enhanced parental influence and during the period of the research the major organisational change relating to devolved school management. Educational changes therefore provide a framework around which work stress issues can be examined. These changes provided an initial impetus for this research and throughout the period of the research (1990-96) these changes have maintained an impact on the teaching profession, an impact which has in fact increased, through the effects of re-organisation and a perpetuation of curricular innovation to the extent that in 1994 the largest teaching union, Educational Institute of Scotland issued a directive to all teachers requesting them not to be involved in any further new developments. This was the trade union's response to the education changes. It was felt by the Union to be necessary following the results of an EIS commissioned report on teachers' workload and associated stress (Johnstone, 1993). It was felt therefore that this research study should consider the changes in education and investigate aspects of work stress to develop a training package which would consider the effects of organisational and curricular changes in relation to the work context and against the background of the research already accomplished in the field of work stress in teaching.

It was felt therefore that two important issues could relate to the focus of an in-service programme on work stress - <u>educationally-orientated</u> issues such as those

involving the curriculum, innovation and teaching and organisational issues such as those relating to organisational change and organisational climate.

To achieve this therefore three research studies were planned with the aim of examining those issues in relation to work stress in schools. The three studies contributed to the development of the in-service programme and a fourth study was planned to implement and evaluate the effects of the programme. It was expected this would lead to the development of an applied model of dealing with work stress in schools.

These studies are reported on in the subsequent chapters and a summary of the studies, results and their implications can be found in Chapter 16. In order to set the scene for the studies undertaken they will briefly be referred to below:

Study 1: The inter-relationships between stress factors in teaching:

This study examined stress factors utilising the model of 'psystress' (Hinton and Burton 1992). Particular emphasis was placed on organisational change and its relationship between stress variables. This study was conducted with a group of seventy teachers in a comprehensive secondary school.

Study 2: The roles of perceived organisational change, personal planning and perceived responsibility and concern:

This study examined teacher work stress in relation to their

perceptions of the importance of organisation and planning, both at a personal and a school level. This study involved a sample of forty teachers from a secondary school. The results of the study,like the previous one were seen to have considerable implications for the development of the in-service stress management programme.

Study 3: The relationship between stress factors and dimensions of the school organisational climate:

This study examined organisational climate and particularly its relationship with teacher work stress. Particular dimensions of organisational climate which can be grouped together were examined in relation to the development of the in-service stress management programme. This study was conducted with the staff from six different primary schools with a total sample of 54 teachers.

Study 4: The intervention study:

This study involved the implementation of the in-service stress management programme which had been developed following an examination of the results of Studies 1, 2 and 3.

The programme was based on three organisational aspects - organisational change; personal organisation and planning and organisational climate. It was implemented with the whole school staff in a primary school. To compare the effectiveness of the programme two other types of interventions were administered in two other primary

schools. These were an individual counselling programme dealing with the same issues as those considered in the whole school programme and a curricular-focused programme which was entirely directed to a relevant curriculum issue - dealing with literary difficulties. This third group did not receive any direct stress management intervention.

It was decided to implement the programme during the Autumn term of the school year. Salo (1995) found clear evidence for the accumulation of teacher stress during the Autumn term. This study of Salo's was a replication of an earlier one (Kinnunen 1988) and the results are broadly consistent with Capel's study (1989) which show the accumulation of stress during the school year. The practicalities involved for the organisation of the in-service calendar from the schools point of view meant that the Autumn term would also be more suitable for them (see Chapter 12 - Procedure).

These factors - the practicalities and the timing of the programme within the school calendar need therefore to be considered when examining the effects of the intervention programme.

Chapter 6

Aims, Objectives and Hypotheses

AIMS OF STUDY

The general aims of the study are:

- To test the application of the model of psystress (Hinton and Burton 1992) to the teaching profession.

- to examine particular variables relevant to the generation, responses to and prevention of stress in teaching.

- to plan, develop and implement a professionally relevant in-service stress management programme as a whole-school package to take account of teacher stress, organisational climate and organisational change.

- to evaluate the whole-school in-service package compared to an individual counselling approach and a curriculum focused approach.

- to develop an appropriate model for dealing with teacher stress management.

OBJECTIVES

1. To examine the relationships between stress generating variables and stress responses as identified in the model of psystress (Hinton and Burton 1992).

2. To examine the relationship between organisational and curricular change and teacher stress.

3. To investigate factors relating to organisational climate and their relationship with teacher stress.

4. To examine the role of social supports in stress generation and prevention.

5. To develop a programme for dealing with teacher stress and organisational change from a whole-school perspective.

6. To implement and evaluate that programme.

7. To develop and implement a framework for individual counselling with teachers to take account of organisational climate and change.

8. To develop and evaluate the effects of implementing a curriculum focused programme in relation to 'literacy difficulties' to a whole-school staff.

9. Compare the effects of the whole-school stress management programme with the other methods such as an individual programme and one dealing with literacy difficulties.

10. To consider all the relevant aspects of this study in order to develop an appropriate model for dealing with teachers stress.

HYPOTHESES

Specific hypotheses will be shown for each of the four studies in this research. In view of the literature, aims and objectives it is possible however to present a general hypotheses which embrace all four studies.

GENERAL HYPOTHESES

1. That the model of psychological stress (Psystress) is an appropriate one for examining stress generation and stress responses in the teaching profession.

2. Organisational factors, particularly organisational climate and organisational change represent key aspects of teacher work stress and stress management in schools.

3. Stress management can be effectively addressed through a whole-school programme, focusing on school organisational climate and organisational change.

4. A model for stress management in schools can be developed to highlight the role of organisational and curricular aspects.

Chapter 7

Method

METHOD

Introduction

This chapter will describe the general methodology of this research and the rationale for the selection of samples and the construction of the measures used.

The research utilised both qualitative and quantitative strategies through administering four series of questionnaires, conducting a series of semi-structured interviews, the development and implementation of two different stress management intervention programmes, a control group programme focussing on literacy development and a feedback session with the two groups with whom the stress management programme was implemented.

The development of the stress management programme was largely determined by the responses from the questionnaire and interview studies.

Subjects

Four separate groups of subjects were used including both primary and secondary sectors in order to obtain a comprehensive index of the educational changes currently affecting teachers and how the school as an organisation appears to be dealing with these changes. Since the stress questionnaires had been extensively

piloted with different groups of workers and professionals it was felt that the questionnaires would be applicable to both primary and secondary teachers.

In total 212 teachers were involved in the research. Further details of the subjects are shown in the chapters describing each of the studies (see Chapters 8, 9, 10, 12).

Measures

A summary of the measures used in the questionnaires are shown below, together with the abbreviations which are to be used in discussing the results of the studies in this research. (All the abbreviations used in this research can be found in the Glossary at the end of this volume.)

Measures Used - Design and Summary

The Cognitive Appraisal Stress Test (CAST)

The CAST scale measures Perceived Coping Incapacity (PCI) (Hinton and Burton (1995). Subjects are instructed to indicate how strongly they agree or disagree with statements relating to their attention, concentration and decision making abilities by marking a 10-point ratings scale. The larger the total score obtained the greater the subject's Perceived Coping Incapacity.

The Social Supports Scale (SOCSUP)

The SOCSUP scale was developed by Hinton (1991) in order to determine subjects perceptions of the social supports they receive. There are 4 questions in the SOCSUP scale, 2 of which relate positively to social supports and 2 of which relate negatively to social supports. Thus the more positive a score the subject obtains, the more they perceive themselves to have good social support.

The Psychosomatic Symptoms Scale (PSYSOM)

PSYSOM was developed by Hinton and Rotheiler (1987) and Hinton et al (1988). The scale was constructed by examining the 30 most common psychosomatic complaints from over a thousand teachers who had left work because of job stress. A scale of measurement is included which combines aspects of intensity, frequency and duration for each symptom.

The General Motivation Scale (GEMOS)

GEMOS was devised by Hinton et al (1989). The scale relates to general motivation in work and specifically to motivation to take action. There are 4 positive and 4 negative statements relating to motivation to take action at work and subjects are asked to indicate on a 10-point ratings scale whether they strongly agree or disagree with the statements. High scores on this scale demonstrate the respondent is highly motivated to take action at work.

The Perceived Responsibility and Concern Scale (PERES)

PERES was developed by Reid (1992) (see chapter 9). Subjects are instructed to indicate whether they believe they have excessively low or excessively high personal responsibility for a number of school factors by marking a 10-point ratings scale. The subject's scores are then measured in terms of how much they deviate from the optimum score.

The Perceived Non-satisfaction of Needs Scale (PERNOS)

PERNOS was developed originally by Hinton (1990) and was administered in Study 1 and 2 which led to its adaptation for Study 3 in this research. For each need subjects were asked to indicate, via a 10-point rating scale, the extent to which they think the need is important and the extent to which they feel the need is satisfied.

The Emotional Response to Stress Test (ERST)

ERST was developed by Hinton and revised following its use in a number of research projects (Hinton et al, 1988). Subjects are given a list of emotional states and are asked to assess how they generally feel emotionally at work by circling the most appropriate number in a 10-point response scale. A high score indicates that the subject is experiencing emotional stress at work.

The Eysenck Personality Inventory (EPI)

The EPI was included to partial out the scores high in the Neuroticism factor.

Work Behaviour Stress Response Scales (WRST 1 and 2)

WRST1 and WRST2 were developed by Morgan (1991) in order to determine how subjects behave at work in response to stress. WRST1 consists of 6 positive and 4 negative statements relating to behaviour at work, and asks subjects to circle the appropriate number on the 20-point response scale if any of the statements apply to them. WRST2 asks subjects to indicate the frequency of which certain work behavioral stress responses apply to them. Subjects score from 7 points if the response occurs more than once a day to 1 point if the response never occurs.

The Emotional Defensiveness Scale (EMOT.DEF)

The EMOT.DEF scale (Spielberger) measures how subjects react in their interactions with others. It contains 11 positive statements and 1 negative statement about interactions with others. Subjects are asked if they almost never, sometimes, often or almost always behave in the ways described when they interact with others. Subjects score 1 point for almost never, 2 points for sometimes, 3 points for often and 4 points for almost always, a high score indicating that the subject has a tendency to be rational when interacting with others.

The Self Medication Scale (SELF MED)

The SELF MED scale was devised by Neilson (1992). Subjects are asked to indicate how frequently they take a number of medications. Subjects score 7 points if the frequency is more than once a day and 1 point if the frequency is never.

The Perceived Organisational Change Scale (POG)

POG was developed by Reid (1990) (see chapter 8). It assesses how teachers are affected by recent organisational changes. It consists of a number of components which are: school administration, curricular factors, pupil ability range, internal and external demands and job security. Subjects are asked to indicate on a 10-point response scale whether they believe the particular change has totally unaffected them or strongly affected them.

The Business and Organisation Climate Index (BOCI)

This was developed by Payne and Pheysey (1971), who reconceptualised Stern's Organisational Climate Index (1956) to apply it to business organisations. (See Chapter 4 for a critical discussion of the BOCI.) Some modifications of the language were carried out to make it appropriate for the education sector. The index incorporates 20 different dimensions of the organisational climate. Statements relating to each of these dimensions are scattered throughout the questionnaire and subjects area asked to say whether the statements are true or false in regards to their school. If the subject's response agrees with the dimension they score 1 point. Thus the larger the score the more the subject believes the particular dimension applies to her/his school. A list of the 20 dimensions are shown below, along with a description of the aspects of the organisational climate that they include.

'Leader's psychological distance' (LPD) refers to the attitude management hold towards their staff and each other. Do they address staff and each other on a personal level, for example by first names? Do they treat staff on an equal basis or

is there a recognised group of privileged people? In general this dimension is asking how approachable management are.

The dimension termed **'questioning authority' (QA)** refers to whether there is a school climate which allows staff to criticise decisions taken by management and also whether staff feel they can fight back if they believe they have been treated unfairly.

The **'egalitarianism' (EG)** dimension refers to whether or not staff are treated on an equal basis. In particular this dimension asks what is necessary for advancement in the school, is personality, pull or social status more important than competence in determining promotion or is there just recognition for merit?

'Management concern for employee involvement' (MCEI) refers to the relationship between management and staff. Whether management is prepared to listen to staff and try to understand their point of view and take it into account, or whether they do not want to know their employees on a personal level and take no account of their opinions.

'Open mindedness' (OM) refers generally to whether people feel they can speak freely within the school. For example, questions in this dimension ask whether mistakes are discussed so that they can be learnt from and whether or not the expression of strong beliefs is common in the school.

The **'emotional control' (EC)** dimension asks whether emotions are expressed openly in the school. Do people feel free to show how they feel? Are people likely to enter into a heated argument? and so on.

'Future orientation' (FO) refers to the importance that is laid on planning ahead in the school. For example, whether or not staff are encouraged to take a long-term view.

'Science and technical orientation' (STO) refers to whether the school is concerned with developing the potential of its staff. Is the school research conscious? Are discussions about educational innovations commonplace in the school? Do members of staff have background in other subject areas?

'Intellectual orientation' (IO) asks whether the school organisation values intellectual stimulation. DO staff engage in intellectual discussions? Are reasoning and logic valued staff qualities? Are senior management considered experts in their respective fields?

'Job challenge' (JC) refers to whether staff are given the opportunity to advance themselves. Are staff given the chance to develop talents and skills? Do management encourage individual staff members to be creative?

'Task orientation' (TO) refers in general to the level of commitment staff give to their work. Questions are asked on whether high standards of achievement are set for staff and whether staff view their work as valuable and challenging.

The dimension relating to **'industriousness' (IND)** asks how busy staff are kept and how hard they have to work. Examples of questions asked are if the work is generally routine and undemanding and if people are always ready to stop work and have a break.

The **'altruism' (ALT)** climate dimension refers generally to how much cooperation there is among staff members. It asks questions such as whether people are always willing to help each other and whether there is sympathy for staff members experiencing personal difficulties.

The **'sociability' (SOC)** dimension relates to how often staff members interact through choice, for example out of school hours. Questions are asked on whether there is a perception of being part of a team among staff and whether there are opportunities for staff to socialise together.

The **'interpersonal aggression' (IA)** dimension asks about relationships between staff members. This dimension refers in particular to the levels of hostility that are present in the school. For example it asks whether quarrels are common and whether there are people who act very moodily or have a chip on their shoulder.

'Rules orientation' (RO) refers to how strictly the rules of the school are administered. Whether people pay strict adherence to school rules, how strictly attendance is checked and whether violations of rules are expected to be reported.

'Administration efficiency' (AE) refers generally to how well organised work is within the school. For example, whether information is circulated efficiently so that staff members can act on it and plan accordingly. Also whether or not work is evaluated frequently.

The dimension termed **'conventionality' (CON)** refers to whether or not staff are expected to dress and behave in accordance with certain conventional standards. For example, whether people are expected to dress pretty much alike and if good manners and social customs are important.

'Readiness to innovate' (RTI) refers to how willing management are to implement new ideas. Whether they react quickly or slowly to new developments in education and whether they are likely to encourage unusual or exciting plans.

Lastly the climate dimension termed **'community' (COM)** refers to the role the school plays in the surrounding community. For example, is the school involved in charity work? Are its activities featured in local newspapers? Does the school management regard service to the community as a major responsibility of the school?

Methodology and Procedure

This research utilised both qualitative and quantitative research methodologies throughout the study. An intervention programme was also developed and implemented and a model to deal with stress management in schools was suggested to take account of the responses from the studies and the intervention programme.

Quantitative Studies

Four separate questionnaire studies were undertaken over a five year period. Some of the questionnaire items used in the first study had already been piloted in previous studies (see Measures Used - this chapter) and others were used for the first time developed specifically for this research. Full details of all the questionnaire components and how they were developed are displayed in this chapter.

Qualitative Study

Semi-structured interviews were carried out on the staff in two schools in which a stress management programme was conducted.

The interview schedule was developed from: informal discussions with teachers; the results of the quantitative studies and insights gained from the initial stages of the implementation of the intervention programme (see Appendix 23).

Intervention Programme

The intervention programme was developed following an analysis of the responses from the first three questionnaire studies (see chapters 8, 9, 10). This is discussed further in Chapter 11. The relationships between different variables were considered and strong relationships such as that between PCI and GEMOS and between different dimensions of organisational climate also influenced the development of the programme.

Consideration of Other Methodologies

Critical Incident Analysis

Cooper and O'Driscoll (1994) suggest that techniques such as critical incident analysis should be considered as an alternative methodology for assessing stress and particularly in linking it with coping. This involves a description of the stressful transaction; responses to the stressors and the behavioral consequences of the responses. It was decided not to use this strategy in a formal manner because of the inherent difficulties in obtaining objective data using this method. Critical Incident Analysis, according to Cooper and O'Driscoll (1994) may have shortcomings due to the inability of the teacher to accurately recall specific details of the incident, particularly since it may have been traumatic for them and this in itself may cause recall distortion. Additionally the researcher has to develop coding categories to record the report of the incident and this can also become fairly

subjective (Cooper and O'Driscoll 1994). There is however considerable merit in considering some of the principles of critical incident analysis since it does provide a first hand report to the researcher concerning the nature and consequences of the stressful event. It was felt therefore that the principles of critical incident analysis should be utilised during the implementation of the programme, particularly during the workshop activity. This would enable teachers to recall 'critical incidents' as an example for some of the workshop activities.

Session Impact Method

Session Impact Method (Reynolds, Taylor and Shapiro 1993) describes a method used in group stress management therapy and involves the participants providing detailed feedback after each session. This feedback can be in terms of depth, smoothness, post-session mood, task impact, interpersonal impact and negative impacts. This feedback is then used to shape and modify subsequent sessions.

It was felt that this type of strategy would not be possible in this research programme for a number of reasons. The principal reason being that the programme had to be written in advance and submitted to the headteacher and the staff as they had to decide on participation. Additionally the headteacher had to submit the programme in full along with the school development plan to senior officials within the Regions Education Department.

It was however decided to hold a feedback session on completion of the programme and some of the aspects used in the session impact method (Reynolds et al, 1993) were utilised for this.

Examples of all the questionnaires used and the semi-structured interview schedule can be found in the appendix. A copy of the intervention programme, indicating how it was developed, can be seen in Chapter 11. The overhead transparencies used in the feedback session can also be found in the appendix.

Chapter 8

Inter-Relationships between Stress Factors in Teaching

AIM OF STUDY

The purpose of this study was to investigate relationships between stress generators and stress responses among teachers. It was also felt that this study would provide a suitable focus for investigating the effects and perceptions held by teachers of current organisational change within the profession. It had already been acknowledged that factors within school organisation contribute to 'stress' among teachers and that the pace and extent of educational innovation is an additional factor (Dunham 1984, Tollan 1987, Capel 1989, Cole 1989, Borg 1990 and Proctor, 1993). These factors are accompanied by an increase in teacher and school accountability (Esteve 1982) and the 'opening up' of schools to the influence and scrutiny of external groups, particularly parents [(School Boards) Scotland Act, 1989)].

It was therefore hypothesised in this study that educational innovations which contribute to organisational change and teacher re-adjustment would significantly correlate with teachers' perceived need for supports within the school organisation and negatively correlate with the perceived hassles within schools. It was further hypothesised that the potential stresses within the school organisation such as those resulting from administrative demands; curricular changes; integration of special needs pupils; employment security and involvement with external groups would significantly correlate with the need for effective supports.

This study therefore aimed to illustrate the need to examine school organisation and organisational change in the context of teacher stress.

Additionally however this study provided the opportunity to investigate the application of Hinton's model (1987) to the teaching profession. It was hypothesised that there would be significant correlations between stress generators and stress responses. Although specific interest would be in the area of perceived organisational change it was also suggested that significant correlations would be found between the psystress variables perceived coping incapacity, supports, hassles, perceived non-satisfaction of needs, motivation and emotional and physiological responses.

Specific Hypothesis

The specific hypothesis for this study taking into account the particular aims of the study and the general hypothesis of the overall research is shown below.

1. Significant correlations will be evident between the independent variables, organisational aspects, supports and hassles and the dependent variables, physiological, emotional and behavioural responses to work stress.
2. Significant negative correlations will be evident between 'supports' and 'hassles'.
3. Significant negative correlations will be evident between supports and perceived demands from organisational and educational change, particularly administrative, curricular, job security and accountability.

Method

A large urban secondary school was selected, following an interview with the Rector. The catchment area included both established council and modern private estates. Traditionally the school had a clear academic bias, once serving the town's senior secondary school prior to comprehensive reorganisation in the early seventies. The school has undergone considerable changes since then and more recently educational innovations which relate to the organisational and administrative routine of the school have been evident. These include the introduction of an on-site support unit, the changing role of some teacher specialists, such as learning support teachers, the introduction of new certificate courses with elements of internal and continuous assessment, extended remits for members of the school management team and the introduction of pastoral and vocational courses as part of a whole school approach. The whole staff were in some way involved in these changes.

The study was therefore a within schools design and subjects were assessed by means of a questionnaire. The independent variables were stress generators such as hassles, perceived organisational change, perceived non satisfaction of needs of perceived coping incapacity. Support was also an independent variable contributing to the perceived resources. Motivation was a moderator variable. The intervening variable was the extent of teacher stress experienced and the dependent variables were stress responses such as physiological ailments, emotional responses and task performance efficiency. This is highlighted in the PSYSTRESS model shown in Figure 2.

A rating questionnaire was drawn up, based on the findings of previous research (Hinton et al 1988), with an additional section headed 'perceived organisational change'. Questions on "supports and hassles" were scattered throughout a general questionnaire on stress related items.

The general rating questionnaire included a number of factors: psychosomatic complaints; cognitive appraisal stress test (CAST); task performance; general motivation scale; emotional response to stress; perceived non-satisfaction of needs, and supports and hassles. The questions relating to all of these factors have been the subject of a number of research projects and consequently the questionnaires have received ongoing revision (Hinton, 1989).

The variables were examined using a ten point interval scale. Perceived Coping incapacity was measured using the instrument (CAST) Cognitive Appraisal Stress Test). Perceived non-satisfaction of needs (PERNOS) and Task Performance Efficiency (TP) were developed from previous pilot studies (Fotheringham and Gordon 1989). The emotional response to stress test (ERST) was devised using factor analysis from previous studies (Hinton 1989) as was the case with the motivation scale (GEMOS) and Physiological Ailments (PSYSOM).
The Perceived Organisational Change scale was developed specifically for this study (see Appendix 3).

The perceived organisational change questionnaire consisted of a number of different components. It originally evolved from a list of fifty-five items gleaned from

the literature (Cherniss 1990, Dunham 1980, Trendall 1989, Cole 1989). It was then reduced to thirty items by four judges (Tollan 1990). The number of questions were then reduced to cover each of the following areas relating to organisational change: school administration; curricular factors; pupil ability range; internal and external demands; job security and in-service training. A series of interviews were then held with a range of teachers on an individual basis and the questionnaire was then prepared.

The supports and hassles questionnaire, specifically developed for this study, evolved from a series of studies and interviews involving teachers and worker in other organisations. (See Appendix p.13)

The questionnaires for this study were administered towards the end of the Autumn term and the teachers were given one week in which to complete them. The response rate was 90%.

The respondents in the study were all teachers of differing status, age and experience. Of the 70 responses 29 were from promoted and 41 from unpromoted teachers. Experience ranged from 0 to over 15 years. There were 43 male and 27 females and their ages ranged from below 25 to above 55.

RESULTS

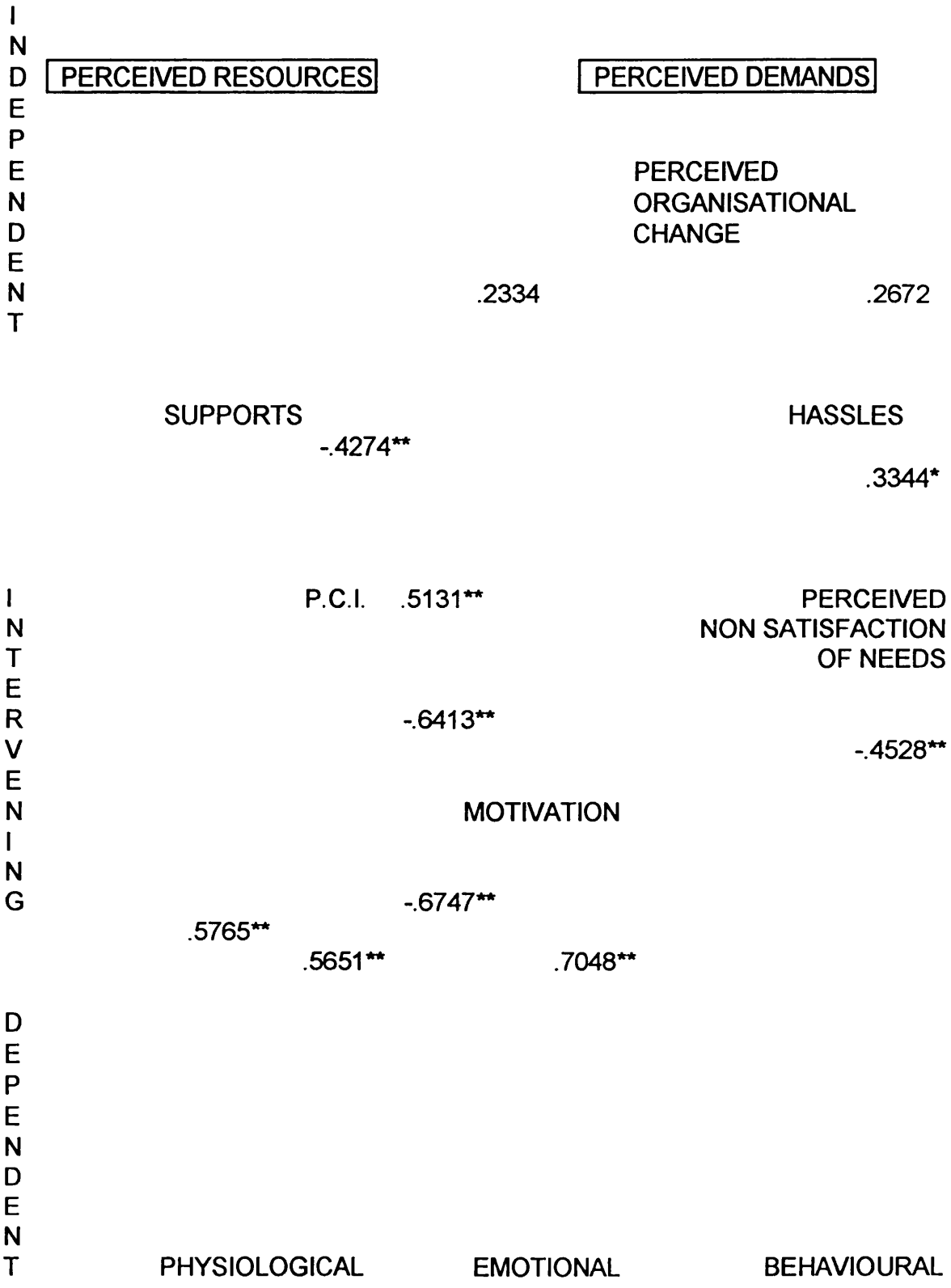
The results support the hypothesis for this study and the stress model to be used throughout this research.

The correlations between the stress variables can be seen in Figure 2 (page 101). These support the 'psystress' model to be used in the research. The correlations between PCI and stress responses were all very strong. A significant negative was found between PCI and the behavioural response of task performance efficiency (-6747 and p <0.001). Emotional responses, specifically 'unease' correlated positively with PC1 (.5651 p <0.001). Therefore when teachers experienced high 'perceived coping incapacity' they also experienced high levels of "unease". The other stress response physiological ailments was also found to correlate significantly with PC1 (.5765 p <0.001). This scale was sub-divided into 'muscle tension' and 'fatigue'. It was found that the teachers in this group showed higher correlations for fatigue than muscle tension. It is also worthy of note that PC1 correlated positively and significantly with perceived non-satisfaction of needs (.5131 p <0.001) and significantly and negatively with motivation (-.6513 p <.001). PC1 also significantly and negatively correlated with the perceived resources namely supports and significantly and positively with perceived demands, hassles, (.3344 p <0.01). (This is described in more detail in Table 1).

A significant negative correlation (p <.01) was noted between supports and hassles (see Table 1). The 'support' responses correlated significantly and negatively with teachers' self perception of stress generation factors (PC1), with stress responses (ERST) and with psychosomatic complaints (Psysom) (see also Table 1).

Fig. 2

'PSYSTRESS' MODEL



2-TAILED SIGNIFICANCE: * .01
** .001

Table 1 **Mean Scores and Supports and Hassles Correlations (n = 69)**

	Supports	Hassles	CAST	ERST	PSYSOM	Fatigue	Making Decisions	Concen-tration	PERNOS	GEMOS	POG
Mean Scores	3.47	8.39	-25.33	14.01	32.11	15.06	-14.42	-16.32	54.00	-20.61	54.47
Standard Deviation	9.00	7.00	17.05	8.35	10.74	6.24	8.00	8.52	7.92	10.51	18.43
Supports	1.000	.31*	-.43**	-.58**	-.35	-.37*	-.45**	-.33*	-.41**	.38	-.22
Hassles	-.31*	1000	-34*	.29	.25	.24	-35*	.23	.31	-.24	.27

p < * = .01
** = .001

The responses on items relating specifically to "supports" correlated significantly and negatively with fatigue ($p < .01$) and highly significantly with decision making ability ($p < .001$). A highly significant negative correlation also existed between supports and perceived non-satisfaction of needs ($p < .001$) and a significant positive correlation between supports and motivation ($p < .001$) (see also Table 1).

The items in the questionnaire relating to hassles correlated significantly and positively with stress generation factors and with decision making ($p < .01$).

The total "perceived organisational change" responses correlated significantly and negatively with supports ($p < .02$) and positively with 'hassles' ($p < .02$) (Table 1).

All of the ten items included in the 'perceived organisational change' questionnaire correlated significantly and positively with the total 'perceived organisational change' responses (nine at ($p .001$ level and one at $p < .01$ level) (see Table 2).

Some individual variables in the perceived organisational change questionnaire, such as increased administration demands, imposed curricular changes and increased demands on time displayed significant correlations with number of years teaching (see Table 3).

Imposed curricular changes correlated significantly and positively with number of years teaching, integration of broad abilities and parental demands (all at $p < .001$) and with increased demands on time ($p < .01$) (see Table 4).

Increased demands on time has been suggested to be a significant aspect affecting teachers' performance in school, stress levels and how they deal with changes (Trendall 1989, Kyriacou 1989, Brown and Ralph 1993). It was interesting therefore to examine the relationship between increased demands on time which was a component within the perceived organisational change questionnaire and other variables relevant to changes and the effects of changes in schools (see Tables 5 and 6). It can be noted that parental demands correlate significantly with time demands ($p < 0.001$) as does integration of special needs pupils ($p < 001$) and coping with broader ability range ($p < .01$). Not surprisingly increased administration demands and imposed curricular changes also show significant correlations with demands on time ($p < .01$). This is an important issue and is examined in relation to the development and the implementation of the stress management programme (see Intervention study). It is also interesting to note the highly significant positive correlations between parental demands and the time occupied with management ($p < .001$). This may suggest that the more demands on teachers from other sources the more time is felt to be necessary to discuss this with management.

One of the recent issues in education has been that of subject merges, which by their very nature, one may hypothesize, could adversely affect teachers' job security.

Table 2 **Intercorrelations of Perceived Organisational Change Variables Scale (n = 69)**

	Increased Demand Teachers' Admini-stration	Increased Curricula Demand	Integra-tion of Broad Ability Range	Integra-tion of Special Needs Pupils	Increased Internal Time Demands	Increased External Time Demands	Parental Demands Org. and Curr.	Parental Demands Ind. Progress	Job Security	Changing Role
Correlation with total Organisational Change	.53**	.52**	.68**	.73**	.67**	.77**	.72**	.76**	.38*	.58**
p <	.001	.001	.001	.001	.001	.001	.001	.001	.01	.001

Table 3 **Correlations between Perceived Organisational Change variables and Number of Years Teaching (N = 69)**

Factor	Variable	r	P<
Number of Years Teaching	Increased Administration Demands	.5628	0.001
	Imposed Curricular Changes	.5804	.001
	Increased Demands on Time	.3593	.01

Table 4 **Correlations with Imposed Curricular Changes (n = 69)**

Variable	r	P<
Number of years teaching	.5804	.001
Integration of broad abilities	.6129	.001
Parental demands	.4133	.001
Increased demands on time	.3451	.01

Table 5 **Correlations - Increased demands on time (n = 69) (Internal)**

Variable	r	P<
Parental demands (Org. and Curr.)	.4305	.001
Parental demands (Ind. Prog.)	.5678	.001
Integration of special needs pupils	.3932	.01
Imposed curricula changes	.3451	.01
Time occupied by management	.3565	.01

Table 6 **Correlations - Increased demands on time (n = 69) (External)**

Variable	r	P<
Increased admin. demands	.3627	.01
Integration of broad abilities	.3773	.01
Integration of special needs pupils	.5324	.001
Parental demands (org. and curr.)	.7025	.001
Parental demands (Ind. Prog.)	.6136	.001

It was interesting to note therefore that there was also a highly significant positive correlation ($p < .001$) between the general cognitive appraisal stress test (PC1) and the item in the perceived organisational change questionnaire relating to 'subject mergers'.

Regarding the issues of in-service training, a significant positive correlation was seen between the perceived value of in-service training and increased demands on time ($p < .02$).

The latter point is of some importance to the study since the product of this research is the development of a whole school in-service programme on stress management. It is important therefore that the time demands on teachers are considered in the development of the programme (see Chapter 12 Procedure).

Discussion

The results indicated that educational changes and their effect on school organisation and teachers' coping resources required some further study. The data showed that this focus could be directed to a re-examination of the existing supports and the development of new supports for teachers. It is interesting that a significant negative correlation existed between supports and non-satisfaction of needs. This is consistent with the finding that school supports can act as a buffer against stress (Lucas, Wilson and Hart 1986). The most effective supports appear to be associated with the interpersonal aspect of school communication network (Trendall 1989, Sarras 1988). This could provide sound support for teachers if it is given sufficient consideration; if not, it could add to existing levels of stress through a process of depersonalisation (Trendall 1989). An examination therefore of this aspect would clearly provide a useful follow-up to this study and become a focus of

the subsequent study on organisational climate and a component of the stress management programme.

The relationship which can be seen from the results between existing supports and perceived non-satisfaction of needs provided some indication of the importance of supports as an intra-school variable. Additionally, the significant positive correlation between supports and motivation underlined this importance and indicated the possible role of supports in preventing demotivation thus minimising the risks of possible burn-out (Zabel & Zabel 1982).

Significant correlations were found between stress generators and stress responses, most at a significant level ($p < 0.001$).

These results support the transactional stress model (Hinton 1987) and particularly its relevance and appropriateness to the teaching work force.

Of particular importance for the development of this research study is the role of supports in school, indeed the hypothesis for this study predicted significant correlations with Supports and Perceived Coping Incapacity. This was supported with a highly significant negative correlation between supports and P.C.I. ($-.4274$ $p < 0.001$). Thus when teachers felt they had a high level of support they felt more able to cope as their perceived resources for dealing with a problem were increased. The opposite is the case for hassles ($.3344$ $p < 0.01$) as these are regarded as perceived demands which diminish teachers' perceived ability to cope. Perceived

non-satisfaction of needs produced highly significant correlations with both PCI and Motivation. If teachers therefore perceived their important needs as being fulfilled they then felt better able to cope (.5131 p <0.001) and were more motivated (-.4528 p <0.001).

Motivation, a moderator variable, was found to have strong correlations with the other variables, particularly with P.C.I (-6413 p <0.001). As teachers experienced increased stress they therefore become less motivated. This supports the theory of 'learned helplessness' implying that if the teachers felt their stress levels too high they would become de-motivated thus resigning themselves to helplessness. Motivation was positively correlated with Task Performance Efficiency (.7048 p< .001). This is not surprising as it seems likely to suggest that a teacher who feels they can cope will perform better. Emotion, particularly "unease" correlated positively with PCI (.5651 p <0.001), therefore when teachers felt they had high levels of stress they felt high levels of unease. Not surprising therefore in view of the results discussed thus far physiological ailments correlated with PCI (.5765 p <0.001). This is consistent with the literature in relation to the effects of stress on physiological well being, often reflected in high absentee rates.

The physiological ailments scale in this study was sub-divided into "muscle tension" and "fatigue". It was found that for this sample fatigue correlated more significantly with PCI than muscle tension (.4653 p <0.001, .5227 p <0.01). This may well be due to the particular stresses inherent in teaching.

The data also revealed, in line with expectations, that promoted staff are involved in a greater amount of administration than unpromoted staff. It is interesting, therefore, that a significant positive correlation was found between parental demands and time occupied by management. Thus, this group of school staff who are by virtue of their dual role as teachers and administrators heavily involved in the organisational implications of educational changes are also virtually the "front line" in dealing with parental demands. It is likely that this group of teachers were also those with the greater teaching experience.

The literature suggests that those teachers with lengthy teaching experience are also those who are more concerned with, and more stressed by, curriculum innovation (Wilkinson 1988). It is interesting, therefore, that in this study a significant positive correlation (.59 $p < .001$) was noted between number of years experience and perceived curricular changes. Clearly, therefore, some further consideration can be directed to the role of promoted staff in both coping with educational changes within their own established remit and in their role of facilitators and part of the support network for other members of staff.

The literature is well documented by studies which show that the "imposed" element of curricular change contributed greatly to teacher stress (Capel 1989, Cherniss 1980 (b)). It is interesting that the item relating to stress from imposed curricular changes was the item in the perceived organisational change questionnaire which received the highest mean rating for how strongly teachers were affected by this aspect of educational change. It is also interesting that a significant positive

correlation was seen between 'imposed curriculum change' and 'integration of broad abilities of pupils' since integration has an imposed element to it. Teachers have in effect less choice over the ability range of their classes and secondary schools now incorporate a number of "special needs" pupils in line with the Warnock Report (1978) which indicated that integration of special needs pupils into mainstream schools was a desirable aim for local education authorities. This policy has taken a considerable time to implement because of the radical nature of the changes but teachers are confronted by an increasing amount of pupils who have special needs and this requires considerable re-adjustment, both for class teachers and school management teams.

Another recent phenomenon in schools has been the threat and practice of subject mergers. Again, perceived stress from this factor would be consistent with the idea that those teachers with a preferred internal locus of control would find such a threat formidable (Capel 1987, Trendall 1989). It can be argued that secondary teachers chose their preferred teaching subject at an early stage in their careers and therefore subject mergers, which can be perceived by teachers as imposed change, can be potentially stressful. It is, therefore, not too surprising to find in this study a highly significant positive correlation ($p < .001$) between the items relating to the 'cognitive appraisal stress test' and stress from "changing role in relation to subject mergers".

Regional education authorities seek to cope with the increasing amount of educational changes through the organisation of in-service courses. In general,

these courses focus on details of the changes and their implications for pupils and teachers. It has been acknowledged that often factors such as 'time management' and 'general stress management', which can help teachers cope with these changes, are of high importance (Wilkinson 1988). It is, therefore, of some relevance that in this study a positive significant correlation has been seen between in-service training and increased demands on time. It is unlikely that this implies that in-service training 'per se' is a demand on teachers' time, since specific non-teaching days have been allocated throughout the school year for the purpose of in-service training. Further study would be necessary to examine and develop the whole issue of time management skills for teachers. This therefore will be a central component in the stress management programme developed for the intervention study for this research.

One of the aims of this study was the validation of the 'perceived organisational change' questionnaire. Although originally it derived some items from the literature, substantial adaptations were carried out to take account of recent educational changes. It was interesting and encouraging, therefore, to find a number of significant correlations between perceived organisational changes and a number of other variables such as supports and hassles.

It is also noteworthy that all the items included in the 'perceived organisational change' questionnaire correlated significantly and positively with the total 'perceived organisational change' scores (nine at the ($p < .001$ level and one at ($p < .01$ level).

Clearly, therefore, a degree of internal consistency existed between the items included in the perceived organisational change questionnaire.

Implications

This study clearly illustrated that a further need existed to examine school organisation in the context of teacher stress. Such a study would incorporate interpersonal supports within schools, the school communication network, school ethos, the role of the management team in curriculum, time management skills teacher supports and liaison with parents and outside agencies and organisational factors.

The results from this study seem to highlight the importance of 'supports' within schools and the important role they play in both teachers' 'perceived non-satisfaction of needs' and in teacher motivation. Clearly the evidence points to the view that well developed 'supports' can help to offset the 'perceived stress' associated with educational and organisational change and therefore minimise the risk of psychosomatic ailments or burn-out.

One interesting aspect to emerge from the study was the demands which appear to be placed on management. It is this group who are in a position to facilitate stress management programmes or develop an organisation which takes account of stress factors, yet they appear to have considerable pressures themselves and indeed in

some cases, such as in liaison with parents, are in the 'front line'. Clearly there are in-service implications for aspects such as time management and development of a school organisation which can accommodate educational and administrative changes with a minimum degree of teacher stress. It would also seem that it is of some importance that management are included in a school based stress management programme.

Additionally, the study showed that the 'imposed' element of educational innovation is potentially a stressful factor. Aspects such as subject mergers, integration of broad ability ranges and curriculum innovation are some of those factors which can be particularly stressful to teachers since they appear to be outwith the teachers' control.

The perceived organisational change questionnaire appears to have achieved some internal validity from this study and clearly some of the items in this questionnaire can be effectively developed for further study.

The study appeared to substantiate the specific hypothesis that a relationship exists between educational innovation and school organisation. Further, that a significant positive correlation exists between stress arising from school organisational change and teachers' perceived need for supports. Similarly, it has also been shown in this study that a significant negative correlation exists, between organisational change and 'hassles', therefore, if school organisational change is to take place, then "hassles" will need to be minimised.

The study clearly underlined the importance of examining the organisational climate within schools to identify the nature of the link with work stress.

The study also showed that the model of stress used, ('PSYSTRESS'), seems to be appropriate for examining teacher stress.

The significant correlations between stress generators and stress responses are consistent with previous studies using the same stress model and other studies relating to the teaching profession.

As this study was seen as part of a developing research study the methodology of the study was examined in order to suggest modifications for the further study. It was felt that in fact few areas of the experiment could actually be altered. It was however felt that the inclusion of two distracters in the PCI questionnaire may help to break up the fairly obvious theme of this section.

It was also felt that perceived non-satisfaction of needs would be divided into "extent of the importance of needs" and "extent to which the needs are satisfied". It was felt that it would be wise to replicate elements of this experiment in another secondary school and a number of primary schools.

Chapter 9

The Roles of Perceived Organisational Change, Personal Planning and Perceived Responsibility and Concern

THE ROLES OF PERCEIVED ORGANISATIONAL CHANGE, PERSONAL PLANNING AND PERCEIVED RESPONSIBILITY AND CONCERN

Methodology

The previous study, inter-relationships between stress factors in teaching focused on factors relating to stress generation and stress responses utilising the model of 'psystress'. This follow-up study aimed to develop the application of this model to the teaching profession in order to develop an intervention programme which could accommodate to both the model of psystress and the current and ongoing curricular and organisational changes within the teaching profession. It was hoped therefore that this study would provide further indicators for the content and the rationale of the proposed intervention study - the stress management programme.

It was felt, therefore, that further study examining the following aspects, could be beneficial:

i) the validity of the 'Perceived Organisational Change' questionnaire.

ii) specific aspects of personal organisational through the construction of a new scale 'Perceived Organisation and Planning Scale'.

iii) and the role of 'responsibility and concern' in relation to teacher stress and organisational factors. This was examined by using a new scale focusing on 'responsibility and concern'.

The importance of factors relating to perceived organisational change in secondary schools, particularly the supports and hassles scale was noted in the previous chapter. The implication of this was that many 'petty' aspects of the teachers' role resulted in teacher stress and therefore innovations such as curricula and organisational change may become major factors in teacher stress.

The other implication from this centred round general organisational factors. The study described in the previous chapter suggested that organisation, both personal and school and particularly organisational change, showed a relationship with aspects of the 'psystress' model and therefore would need to be addressed in a stress management programme. This follow-up study aimed to develop this further by examining teachers' perceptions of their personal organisation and relating this to other areas such as school organisation and stress responses.

Additionally a new questionnaire relating to perceived responsibility and concern was developed because it was felt this could be an important factor relating to organisational climate, which was to be the focus of a further study and a component of the stress management programme.

The specific hypothesis for this study was therefore

1. Significant positive inter-correlations would be evident between the different dimensions of perceived coping incapacity relating to life, home, work and social aspects.

2. A significant positive relationship would be evident between perceived organisation and planning and perceived coping incapacity and perceived organisational change.
3. Significant positive relationships would be seen between perceived responsibility and concern and perceived coping incapacity and perceived organisationl change.

This study took place in an urban secondary school, in the same town and in a similar catchment area to the first study. An initial interview with the Rector took place and the questionnaires, with a covering letter explaining the purpose of the study, were circulated to staff (see Appendix 4 and 5). Participation was voluntary and anonymity was ensured. A seventy per cent response rate was achieved (40 respondents).

Instruments Used (see Appendix 6)

The following questionnaires were used:

(a) CAST (Cognitive Appraisal Stress Test) (P.C.I.)

(b) PERNOS (Perceived Non-Satisfaction of Needs)

(c) POG (Perceived Organisational Change)

(d) POPS (Perceived Organisational and Planning Scale)

(e) PRAC (Perceived Responsibility and Concern Scale)

(f) Eysenck Personality Inventory.

Development of Questionnaires

Both 'CAST' and PERNOS had already been extensively piloted (see Chapter 8) from which a number of revisions have resulted (Hinton 1990: Hinton and Burton 1992).

The Perceived Organisational Change questionnaire was also used in the previous study (see Chapter 8).

The Perceived Organisational and Planning Scale (POPS) was developed for this study following some interviews with a number of teachers on aspects of personal organisation in relation to school work.

It consisted of nine questions which related to aspects of personal organisation and planning. These aspects were identified following a number of interviews with some of the respondents from the previous studies. It was also decided to divide the scale into two sections - the extent the activity was carried out and the perceived importance of the activity.

The Perceived Responsibility and Concern Scale (PRAC) was also developed for the current study following interviews with promoted staff and it was decided to examine this area by focusing on school and departmental aspects, pupil aspects, inter-personal and personal aspects.

The Eysenck Personality Inventory was included to partial out the neuroticism factor.

RESULTS:

Biographical Information

Male members of staff numbered 25, whilst females numbered 15. The mean age of subjects was between 40 and 50 years old. Subjects ranged from between 20 to over 50 years of age. With regard to the subjects' job descriptions: class teachers numbered 23; principal teachers numbered 14 and school management numbered 3. As far as the subjects' total experience as teachers was concerned, the mean number of years was 15-20, with a standard deviation of 7 years. The total teaching experience of subjects ranged from less than 2 years to more than 20 years. Finally, the mean number of years that subjects had spent in their present post was 6-8 years, and the standard deviation was 4 years 6 months. The time spent in their present position ranged from 1-2 years to over 12 years (See Appendix 7).

Perceived Coping Incapacity

The questionnaire measuring perceived coping incapacity was divided into four dimensions - life, work, social aspects and home. It is interesting to note that significant positive correlations were found between these different dimensions - life

and work (.8822 p <.001); home and life (.8611 p <.001); social aspects and life (.7204 p <.0010) (See Table 7); home and work (.6418 p <.001) and social aspects and home (.7762 p <.001) See Table 8).

Table 7 **Cognitive Appraisal Stress Test (P.C.I.) (CAST-LIFE) (n = 40)**

Variable	r	Significance
CAST-Work	.8822	.001
CAST-Home	.8611	.001
CAST-Social	.7204	.001
Perceived Org. and Planning (POPS)	.5001	.001

Table 8 **Cognitive Appraisal Stress Test (P.C.I.) CAST-HOME**

Variable	r	Significance
CAST-Life	.8611	.001
CAST-Work	.6418	.001
CAST-Social	.7762	.001
Perceived Org. and Planning (POPS)	.4309	.01

Table 9 **Perceived Organisation and Planning**

Variable	r	Significance
CAST-Life	.5001	001
CAST-Home	.4309	.001
Perceived Org. Change	.3903	.01
CAST-Work	.3520	.05

Table 10 **Perceived Organisational Change**

Variable	r	Significance
CAST-Life	.2001	.05
Experience	.2502	.05
Perceived Org. and Planning	.3903	.01
Perceived Responsibility	.3500	.02

Clearly, therefore, in line with the specific hypothesis, the cognitive appraisal stress test has some validity in relation to the inter-correlations and also when examined with the measure specifically developed for this study Perceived Organisation and Planning (POPS).

Perceived Organisation and Planning

It was expected (specific hypothesis two) that 'Perceived Organisation and Planning (POPS) would correlate significantly and positively with aspects of perceived stress (CAST) and with school organisational factors. The results supported this view since POPS correlated significantly and positively with CAST life (.5001 $p < .001$); CAST home (.4309 $p < .01$); CAST work (.3520 $p < .05$) and with Perceived Organisational change (.3903 $p < .01$). (See Table 9). This provides some support for the importance of personal organisation and planning and the relationship of this factor with aspects of school organisations and with work stress in general.

Perceived Responsibility and Concern

Surprisingly the results did not surpport hypothesis three since no significant correlations were found between perceived responsibility and concern with any of the work stress dimensions. Since the previous study identified correlations between management-related factors and work stress one may have expected some correlations between P.C.I. and responsibility and concern. It should be noted however that only three members of the school management responded to the questionnaire so this may have accounted for the lack of relationship between perceived responsibility and concern and work stress.

The results do indicate that management appear to be very aware of their responsibility since a significant, positive correlation could be seen between job description and perceived responsibility ($p < .001$) and with perceived concern ($p < .01$).

Perceived Organisational Change

It was noted in the previous study that perceived organisational change is an important dimension in perceived stress among teachers (see Chapter 8). It was interesting to note therefore the significant positive correlation between Perceived Organisational Change and CAST life (<.05). But surprisingly no significant correlations were evident between CAST work and Perceived Organisational Change. The new scale however which was developed which focused on Personal Organisation and Planning correlated significantly and positively with Perceived Organisation Change (<.01) (specific hypothesis two) (see Table 10).

The results from this study, therefore, provided additional support and direction for the themes which were to be included in the development of the in-service programme.

Discussion

This study was seen as a follow-up to the previous one to identify further the relationship between work stress and a number of different variables, pertinent to teachers. To briefly re-state the results, in line with predictions, greater stress was found amongst teachers who experienced considerable discrepancy between the perceived importance of personal organisation and planning, and the actual extent to which these activities were carried out. Additionally, and also as predicted, the above discrepancy was found in those teachers who perceived a greater degree of organisational change.

Studies show quite markedly that the relatively recent changes within education have substantially contributed to increased teacher stress (Dunham, 1990). These studies and others have indicated that the pace and extent of educational change have added considerably to the stress experienced by teachers. In addition, the theoretical implications of the widely accepted role of 'locus of control' with regard to stress (Capel, 1987), would suggest that as the educational innovations have involved little teacher participation this would further increase the likelihood of teacher stress. The 'imposed' element of educational innovation is clearly a

stressful factor. Aspects such as subject mergers, integration of broad ability ranges and curriculum innovation are some examples of factors which can be particularly stressful, since they appear to be outside the teachers' control. The concept of 'locus of control' has additional implications when considered in the light of the increased accountability of teachers to external groups. It can be suggested therefore that the perception of extensive changes within education might have a significant effect on teacher stress.

However, contrary to expectations, the data from this investigation revealed that no significant relationship existed between 'perceived organisational change' and work stress as measured by CAST-work. Since the previous study indicated the opposite, it was initially a difficult position to explain. Nevertheless, it seems a possibility that the time in the scholastic year at which the present study was administered may go some way to explaining the results. Kyriacou and Sutcliffe (1977, 78, 80) collated the findings of four studies among secondary teachers. These studies indicated that teacher stress was greater at specific times in the year - being at its lowest in the Summer term. As the present investigation was carried out in the last three weeks of the summer term, perhaps this may have affected the results. In line with the findings of Kyriacou and Sutcliffe, it is therefore suggested that stress that may have otherwise resulted from perceived organisational change, would not have been felt as acutely at this time of the school year. With the important external and end-of-year exams over, and the prospect of the long summer holidays ahead, teachers may have overlooked or underestimated the effect of current educational change. Thus, one clear opportunity for further research

would be to administer the same questionnaires at a different point in the academic year. This also has implications for the implementation and the evaluation of the stress management programme.

It was also surprising that no significant correlations were found between 'perceived responsibility and concern' and any of the work stress dimensions. It was felt that responsibility and concern would relate to work stress, and it was firmly anticipated that teachers who perceived heavy responsibility would report increased stress. When the data revealed that no such relationship existed in this particular study, the possibility was addressed that the class teachers who were in unpromoted positions may have heavily influenced these results, probably because they would not perceive responsibility in quite the same way as the promoted staff. Promoted staff are involved in a greater amount of administration than unpromoted staff. So too, this group of promoted staff are by virtue of their dual roles as teachers and administrators heavily involved in the organisational implications of educational changes. It is possible that since promoted staff have greater participation in organisational discussion and decision making, this may increase their perceived control and act as a barrier to stress. More schools are 'opting-out' and becoming responsible for their own budgets, therefore control of money and resources is increasingly becoming a school matter. Therefore, those teachers who perceived themselves to be in positions of responsibility, and thus arguably more vulnerable to stress, may in fact be less likely to suffer from stress, because of their increased sense of control. This issue is clearly important and will become a focus of the in-service stress management programme.

It was also predicted that 'Perceived Organisation and Planning' would correlate significantly and positively with aspects of work stress. The results showed that a strong correlation existed between these two variables. To briefly re-state the way in which personal organisation and planning was assessed in the questionnaire - by devising a new scale which listed items addressing features of teachers' personal organisation, it was possible to gain a measure of the discrepancy between the perceived importance of the given activities and the actual rate to which these activities were carried out. This is a point of crucial importance when considered in relation to teacher stress, as it is this 'mismatch' between the rated importance and the actual occurrence of organisational activities that produces conflict. Had the items merely assessed the extent to which organisational activities were actually carried out, this would have wrongly assumed that all teachers necessarily believe that personal organisation and planning is valuable. There are individuals to whom planning and organisation is of minimal importance, but who nevertheless function effectively. For these people, the absence of organisational and planning behaviour would not be a stress generator, since they do not rate this activity as a necessary or valuable use of time. Similarly, teachers who regard organisational activities, (such as filing documents, setting goals, and being punctual) as high priorities and who are able to carry out these activities satisfactorily may not be as strongly affected by work stress as those who are not for some reason able to carry out these activities.

Thus the key to understanding the results rests upon the way in which this discrepancy between the subjects' beliefs about the importance of planning and

organisation, and the actual rate to which these activities were carried out, generated work stress.

The prediction was also made that aspects of perceived organisation and planning would correlate significantly and positively with perceived organisational change factors (hypothesis two). The data revealed, that this was indeed the case. It would appear that those teachers who perceived a greater degree of organisational change, also perceived a discrepancy in their personal organisational activities, in the way that has been just described. The most likely explanation for this is that the recent educational innovations have led to the teacher's role becoming increasingly diversified. These innovations involve teachers in a greater degree of administration and organisation which must be completed alongside their usual classroom duties. This may be described as job fragmentation and has been identified as an important factor in teacher stress (Klugman 1979). It is also similar to the 'Teacher Overwhelm' factor identified by Tollan (1990). 'Time pressures' are also frequently cited as common stress producers (Dunham, 1984; Kyriacou and Sutcliffe, 1978) and therefore the extent to which teachers plan and organise the time that they have available is an issue of fundamental importance.

These findings have implications for the development of the stress management programme to be implemented in this research. Most of the attempts to deal with teacher work stress have been conducted through in-service training programmes (Tollan, 1987, 1990; Sarras, 1988). But many in-service training programmes for teachers have been criticised for their 'prescriptive' approach. Approaches to in-

service training have been further developed by examining specifically, teacher coping strategies and recognising that a need existed to introduce counselling and stress coping strategies into initial and in-service education (Kyriacou, 1981). Sevent (1983) suggests that the individual is the most important variable, since no one technique will be successful for an individual in all situations. Therefore, a stress management programme must tackle the problem at many levels. Adams (1981) suggested a three-level approach to stress management by firstly removing or avoiding unnecessary stressors; coping effectively with necessary stressors; and building health to buffer long-term effects of stress. It was the second factor which was pertinent to the findings of the present study, since it was through the employment of strategies of planning and organisation that teachers might be able to cope more effectively with the stressful situations they face.

Summary

Perceived Organisation and Planning showed significant correlations with the general CAST scale measuring perceived coping incapacity and this supports the view that a relationship exists between organisational factors and work stress. (Hypothesis two). This aspect is one of the main themes for the stress management programme and inclusion of aspects of personal organisation and planning are to be considered in this programme (see Chapter 11).

Work Stress

The results regarding the nature of work stress confirmed the established view of the interactional and multi-dimensional aspects of perceived stress (Trendall 1990). Since the literature indicated the importance of school supports (Wilkinson 1990) to help teachers deal with multi-faceted aspects of perceived stress, it was justifiable to consider organisational climate as an important component of the in-service programme. In order to examine this factor in more detail in preparation for the in-service programme a further study was planned (see Chapter 10) focusing on organisational climate.

Organisational Factors

It seems therefore that three organisational aspects can be focussed on in this research:

(i) personal organisation

(ii) organisational climate and

(iii) organisational changes

These aspects are related to work stress and the school support network. This, therefore, provides some justification for the primary focus of identifying these elements within school organisation in an in-service programme.

The results from the two studies described thus far confirm the above and show a need for an examination of teacher work stress from the perspectives of personal organisation, school organisation and organisational climate as outlined below.

- The implications of **personal organisation** including aspects such as time management, staff support and staff training.

- The effect of **school organisation** on communication, staff support, inter-personal links, role factors, curriculum development and curriculum and organisational changes.

- The nature of the school **organisational climate** and its importance in relation to school management, staff morale, motivation, sociability and efficiency.

The literature on work stress highlighted factors such as role overload (Trendall 1989), time management (Carter 1987) administration (Litt and Turk 1985), fragmentation factors (Klugman 1979), interpersonal relations (Lucas, Wilson and Hart 1986), interpersonal support (Trendall 1989), openness of staff discussions (Galloway 1982), leadership skills (Kearney and Turner 1987), school

communications network (Sarras 1988), role conflict (Capel 1989) and locus of control factors (Fielding 1982, Cherniss 1980). The problem it appears with identifying stress factors such as the list above, is that teacher stress is a multi-faceted phenomenon and the identification of isolated factors can be misleading if it is to be used to help identify the most appropriate aspects for the development and delivery of a school in-service stress management programme. This emphasises the comprehensive nature of work stress management programmes and the importance of these preparatory studies described in chapters 8, 9 and 10 in the development of a whole school stress management programme and an applied model for teacher stress management.

Chapter 10

The relationship between stress variables and dimensions of the school organisational climate

The relationship between stress variables and dimensions of the school organisational climate.

METHODOLOGY

This part of the research was concerned with teacher work stress from the perspective of the organisational climate of the school. By administering an organisational climate index and identifying correlations between the climate dimensions and stress variables, it was expected that dimensions of organisational climate would show a relationship with teacher work stress.

Subjects

The staff from 6 primary schools in Lothian Region were the subjects for this study. The 6 schools were selected by Lothian Region Education Department and provided a range of school in terms of size and geographical location. The smallest school had 4 staff members, all of whom completed the questionnaires, and the largest school had 21 staff members, 17 of whom completed the questionnaires. The total response rate for the sample ranged between 70-100%. In total there were 54 subjects in the sample. 37 of the respondents were class teachers, 6 were support teachers, 1 was a principal teacher and 10 were part of the school management. 49 of the teachers were female and 5 were male. The mean age of respondents was

40-50 years old. On average subjects had 20 years or more teaching experience. Subjects had on average only been employed in their present posts for 1-2 years.

Procedure

A research proposal had to be submitted to Lothian Region Research committee which has the responsibility for all research activities involving schools in the area. The proposal which was submitted was accepted (see Appendices 10 - 13) and the committee nominated six schools. I then had to approach the head teacher of the six nominated schools to explain the background and purpose of the research. Following this meeting the head teacher had then to obtain agreement from the staff.

I conducted an introductory meeting with all the staff in all six schools before asking them to complete the questionnaire. It was emphasized that completion of the questionnaire was voluntary. Instructions on the front page emphasized the need for subjects to answer truthfully and without the help of anyone else. These instructions were reiterated throughout the questionnaire. Subjects were also required to complete some biographical details which consisted of their sex, teaching position within the school, age range, total years experience as a teacher and length of service in their present post.

Method

The following questionnaires were used to obtain the information for this study: (see Methods Chapter 7).

PCI:	Perceived Coping Incapacity
SOCSUP:	Social Supports Scale
PYSOM:	Psychosomatic Ailments Scale
GEMOS:	General Motivation Scale
PERES:	Perceived Responsibility and Concern Scale
PERNOS:	Perceived Non-satisfaction of Needs Scale
ERST:	Emotional Response to Stress Scale
EPI:	Eysenck Personality Inventory
WRST1:	Work Behaviour Stress Response Scale 1
WRST2:	Work Behaviour Stress Response Scale 2
EMOT.DEF:	Emotional Defensiveness Scale
SELF MED:	Self Medication Scale
POG:	Perceived Organisational Change Scale
BOCI	Business and Organisational Climate Index.

Hypothesis

The specific hypotheses of this study were:

(1) That the model of 'psystress' is an appropriate one for examining aspects of teacher work stress.

(2) That dimensions of organisational climate will correlate significantly with factors relating to teacher work stress.

Results

The following abbreviations are used in the results section:

PCI	=	Perceived Coping Incapacity
SOCSUP	=	Social Supports Scale
PYSOM	=	Psychosomatic Ailments Scale
GEMOS	=	General Motivation Scale
PERES	=	Perceived Responsibility and Concern Scale
PERNOS	=	Perceived Non-satisfaction of Needs Scale
ERST	=	Emotional Response to Stress Scale
WRST1	=	Work Behaviour Stress Response Scale 1
WRST2	=	Work Behaviour Stress Response Scale 2
EMOT.PERES	=	Deviation Score from Perceived Responsibility Scale
EMOT.DEF	=	Emotional Defensiveness Scale
POG	=	Perceived Organisational Change Scale
EPI	=	neuroticism scale of the Eysenck Personality Inventory

Climate Dimensions:

lpd	=	leader's psychological distance
qa	=	questioning authority
eg	=	egalitarianism
mcei	=	management concern for employee involvement
om	=	open mindedness
ec	=	emotional control
fo	=	future orientation
sto	=	scientific and technical orientation
io	=	intellectual orientation
jc	=	job challenge
to	=	task orientation
ind	=	industriousness
alt	=	altruism
soc	=	sociability
ia	=	interpersonal aggression
ro	=	rules orientation
ae	=	administration efficiency
con	=	conventionality
rti	=	readiness to innovate
com	=	community

All the results reported below were at the 0.01 level of significance for 50 degrees of freedom. A number of significant correlations were also noted at the 0.05 level of significance.

Perceived Coping Incapacity (PCI) correlated significantly with a number of the variables. A significant negative correlation was noted between PCI and the Social Supports Scale (SOCSUP), and PCI also correlated significantly and negatively with the General Motivation Scale (GEMOS), significantly and positively with the Psychosomatic Ailments Scale (PYSOM) and also with Perceived Non-satisfaction fo Needs (PERNOS) and the Emotional Response to Stress Scale (ERST). Significant correlations were obtained between PCI and both the work stress behaviour response scales WRST1 and WRST2 (see Table 12).

The Social Supports Scale (SOCSUP) correlated significantly and negatively with the Psychosomatic Ailments Scale (PYSOM). SOCSUP also correlated both significantly and negatively with the Perceived Non-Satisfaction of Needs Scale (PERNOS) and the Emotional Response to Stress Scale (ERST). Significant positive correlations were observed between SOCSUP and the general Motivation Scale (GEMOS) and between SOCSUP and teaching position (TP). It was also noted that SOCSUP correlated significantly and positively with three of the organisational climate dimensions, which were management concern for employee involvement (mcei), job challenge (jc) and administration efficiency (ae) (see Table 3).

The General Motivation Scale (GEMOS) demonstrated significant and negative correlations with the Perceived Non-satisfaction of Needs Scale (PERNOS), the Emotional Response to Stress Scale (ERST) and the work behaviour stress response scale - WRST1. GEMOS also correlated significantly and positively with the organisational climate dimensions management concern for employee involvement (mcei), scientific and technical orientation (sto), intellectual orientation (io), job challenge (jc) and readiness to innovate (rti) (see Table 14).

Results - (see Appendix 19 for raw data)

Table 11:

Variables	Mean	Standard Deviation	Skewness
PCI	-23.093	15.542	-0.394
SOCSUP	7.407	7.56	-0.674
PSYSOM	33.426	10.234	0.539
GEMOS	18.074	12.698	-0.449
PERES	51.593	17.076	0.233
PERNOS	34.852	10.804	0.22
ERST	29.185	15.839	0.847
WRST2	21.611	5.954	0.001
WRST1	-2.981	12.09	-0.088
DEV.PERES	30.704	7.713	-0.472
EMOT.DEF	31.759	4.922	0.199
SELF.MED	32.611	9.868	0.478
POG	45.593	12.875	-0.567
lpd	2.963	1.149	0.600
qa	4.074	1.779	-0.377
eg	6.407	1.765	-1.218*
mcei	6.148	1.583	-0.332
om	4.981	1.754	-0.883
ec	3.259	1.814	0.777
fo	4.444	1.513	-0.223
sto	4.778	1.745	-0.236
io	5.148	1.698	-0.117
jc	5.111	1.621	-0.47
to	5.093	1.762	-0.518
ind	6.444	1.341	-0.236
alt	6.315	1.515	-0.677
soc	5.185	1.844	-0.548
ia	1.593	1.62	1.164*
ro	4.593	1.524	0.259
ae	4.130	2.395	0.128
con	4.185	1.854	-0.023
rti	5.440	1.656	-0.707
com	5.167	1.437	-0.333
EPI	11.37	5.063	0.331

* Indicates that these results are very slightly skewed, however because the amount concerned is fractional the data has not been altered.

Table 12 PERCEIVED COPING INCAPACITY (Number 54)

Variable	r	Significance
SOCSUP	-.47	.01
GEMOS	-.573	.01
PSYSOM	.404	.01
PERNOS	.535	.01
ERST	.543	.01
WRST1	.455	.01
WRST2	.383	.01
T.P.	-.253	.05
M.C.E.I.	-.338	.02
J.C.	-.328	.02
A.E.	-.256	.05

Table 13 SOCIAL SUPPORTS

Variable	r	Significance
PSYSOM	-.392	.01
PERNOS	-.483	.01
ERST	-.378	.01
GEMOS	.435	.01
T.P.	.377	.01
M.C.E.I.	.532	.01
J.C.	.435	.01
A.E.	.43	.01

Table 14 GEMOS (MOTIVATION)

Variable	r	Significance
PERNOS	-.45	.01
ERST	-.529	.01
WRST1	-.519	.01
M.C.E.I.	.454	.01
STO	.37	.01
IO	.381	.01
J.C.	.371	.01
R.T.I.	.369	.01

Table 15 PERNOS

Variable	r	Significance
ERST	.575	.01
WRST1	.409	.01
MCEI	-.512	.01
STO	-.366	.01
AE	-.494	.01

Table 16 ERST

Variable	r	Significance
PYSOM	.43	.01
WRST1	.363	.01
MCEI	-.456	.01
IA	.447	.01

Table 17 WRST1

Variable	r	Significance
WRST2	.541	.01

Table 18 **WRST2**

Variable	r	Significance
WRST1	.541	.01
FO	-.385	.01

Table 19 **EMOT.DEF.**

Variable	r	Significance
STO	.378	.01

Table 20 **P.O.G.**

Variable	r	Significance
EXPER	.476	.01
SERV	.403	.01
IA	-.41	.01

Table 21 **L.P.D.**

Variable	r	Significance
R.O.	.509	.01
CON	.429	.01

Table 22 **Q.A.**

Variable	r	Significance
E.C.	-.491	.01

Table 23 MCEI

Variable	r	Significance
OM	.504	.01
STO	.504	.01
IO	.476	.01
JC	.707	.01
AE	.507	.01
COM	.354	.01

Table 24 O.M.

Variable	r	Significance
EC	-.473	.01
STO	.523	.01
IO	.464	.01
JC	.425	.01
SOC	.427	.01
COM	.368	.01

Table 25 I.O.

Variable	r	Significance
JC	.666	.01
AE	.394	.01
RTI	.533	.01
COM	.523	.01

Table 26 A.E.

Variable	r	Significance
R.O.	.439	.01
CON	.521	.01
JC	.458	.01

Table 27 I.A.

Variable	r	Significance
IND	-.445	.01
SOC	-.423	.01

Table 28 SOC

Variable	r	Significance
ALT	.384	.01
COM	.358	.01

Table 29 PERES

Variable	r	Significance
T.P.	.53	.01
EXP	.357	.01

Table 30 F.O.

Variable	r	Significance
EC	.496	.01
STO	.424	.01
IO	.459	.01
JC	.364	.01
RTI	.259	.05
COM	.321	.02

The Perceived Responsibility and Concern Scale (PERES) was noted as correlating both significantly and positively with teaching position held (TM) and the total years of experience as a teacher (EXPER) (see Table 29).

The Perceived Non-satisfaction of Needs Scale (PERNOS) correlated significantly and positively with the Emotional Response to Stress Scale (ERST) and the work behaviour stress response scale - WRST1. Significant negative correlations were also obtained between PERNOS and management concern for employee involvement (mcei), between PERNOS and scientific and technical orientation (sto) and between PERNOS and administration efficiency (ae) (see Table 15).

Significant positive correlations were noted between the Emotional Response to Stress Scale (ERST) and the Psychosomatic Ailments Scale (PYSOM) and between ERST and the work behaviour stress response scale - WRST1. ERST also correlated significantly and negatively with the organisational climate dimension management concern for employee involvement (mcei) and significantly and positively with the organisational climate dimension interpersonal aggression (ia) (see Table 16).

The work behaviour stress response scales WRST1 and WRST2 correlated significantly and positively. WRST2 correlated significantly and negatively with the climate dimension future orientation (fo) and WRST1 correlated significantly and negatively with biological sex (BIOG) (see Tables 17 and 18).

The Emotional Defensiveness Scale (EMOT.DEF) was found to correlate significantly and positively with the organisational climate dimension scientific and technical orientation (sto) (see Table 19).

The Perceived Organisational Change Scale (POG) demonstrated significant and positive correlations with the total years of teaching experience (EXPER) and the length of service in the present post (SERV). POG also correlated significantly and negatively with the organisational climate dimension interpersonal aggression (ia) (see Table 20).

Total years teaching experience (EXPER) was observed to correlate both significantly and positively with teaching position held (TM), age (AGE) and length of service in the present post (SERV). Age and length of service in the present post were also found to correlate significantly and positively.

The neuroticism scale of the Eysenck Personality Inventory (EPI) was noted as correlating with a number of variables. EPI 'n' scores correlated significantly and positively with Perceived Coping Incapacity (PCI), the Psychosomatic Ailments Scale (PYSOM), the Perceived Non-satisfaction of Needs Scale (PERNOS), the Emotional Response to Stress Scale (ERST) and the work behaviour stress response scale - WRST1. EPI 'n' scores also correlated significantly and negatively with the Emotional Defensiveness Scale (EMOT.DEF) and with the organisational climate dimensions future orientation (fo) and scientific and technical orientation (sto).

The correlation matrix also revealed that there were a number of significant correlations between the organisational climate dimensions. The dimension termed leader's psychological distance (lpd) was noted as correlating both significantly and positively with rules orientation (ro) and conventionality (con) (see Table 21).

A significant negative correlation was observed between the organisational climate dimensions questioning authority (qa) and emotional control (ec) (see Table 22).

Management concern for employee involvement (mcei) correlated with a number of organisational climate dimensions. Significant and positive correlations were obtained between management concern for employee involvement and open mindedness (om), scientific and technical orientation (sto), intellectual orientation (io), job challenge (jc), administration efficiency (ae) and community (com) (see Table 23).

The dimension open mindedness (om) displayed a significant negative correlation with emotional control (ec). Open mindedness also correlated significantly and positively with scientific and technical orientation (sto), intellectual orientation (io), job challenge (jc), sociability (soc) and community (com) (see Table 24).

Intellectual orientation (io) correlated significantly and positively with job challenge (jc), administration efficiency (ae), readiness to innovate (rti) and community (com) (see Table 25).

Significant positive correlations were obtained between adminstration efficiency (ae) and rules orientation (ro), conventionality (con) and job challenge (jc) (see Table 26).

The organisational climate dimension interpersonal aggression (ia) was found to correlate both significantly and negatively with the climate dimensions industriousness (ind) and sociability (soc) (see Table 27).

Significant positive correlations were also obtained between the climate dimensions sociability (soc) and altruism (alt) and between sociability (soc) and community (com) (see Table 28).

A 't' test procedure was also conducted to examine if any difference existed between the small school and the large school. The results are displayed below.

Table 31 Results of t-tests to determine whether significant differences exist between 2 of the schools.

	Small School		Large School			
Variables	Mean	Std.dev	Mean	Std.dev	t	p
PCI	-29.1	14.3	-17.5	14.4	-2.14	<0.05
SOCSUP	11.33	4.68	3.59	7.07	3.55	<0.001
mcei	6.75	1.36	5.35	1.50	2.62	<0.01
jc	5.85	1.21	4.53	1.62	2.54	<0.01

Role of Organisational Climate

It was felt that further analysis was necessary to provide more information on the role of organisational climate in order to develop an appropriate in-service programme for teachers.

The correlations between the 'Psystress' variables - P.C.I.; SOCSUP; PYSOM; GEMOS; PERES; PERNOS; ERST; WRST1; WRST2, with the twenty organisation climate dimensions were examined. The intention was to select no more than ten organisational climate dimensions which correlated significantly with some of the Psystress variables and conduct a factor analysis on the data.

Nine organisational climate dimensions were selected which correlated highly significantly with some psystress variables. These were job challenge (<0.01 GEMOS); management concern for employee involvement (<0.001 SOC.SUPP; <0.01 GEMOS; <0.001 PERNOS; <0.01 ERST); open mindedness (<0.01 PERNOS); interpersonal aggression (<0.01 ERST); readiness to innovate (<0.01 GEMOS); administrative efficiency (<0.01 PERNOS); industriousness (0.02 WORST1, WORST2) altruism (<0.05 SOC.SUP); open mindedness (<0.01 PERNOS, 0.,01 SOC.SUPPORT); scientific and technical orientation (<0.01 PERNOS, <0.01 GEMOS).

It was also felt that these dimensions related well to those aspects which were expected to be included in the intervention programme.

A factor analysis was then carried out on these nine organisational climate dimensions. Three factors were established from the Principal Components Analysis of the nine climate dimensions. Factor 1 represented 41.3 of the Proportionate Variance Contributions, factor 2 32.2 and factor 3 26.4. The structure of the three factors which was obtained from the varimax rotation of the results are presented on the following pages.

It should be acknowledged that factor analysis is not as objective as most statistical methods and many commentators suggest that there are a number of problems associated with factor analysis. Chatfield and Collins (1980) for example list six such problems. At the same time however factor analysis is useful for gaining insights into the structure of multivariate data.

Essentially the purpose of factor analyses is to describe the covariance relationships among many variables into a few underlying but observable random groupings. A number of different procedures can be used to obtain a factor analysis. One such procedure includes firstly performing a principal components analysis and through plotting the factor scores note any suspicious observations. Then one could perform a maximum likelihood factor analysis including a varimax rotation. It would then be possible to compare the factor analysis solutions in order to ascertain any consistency in groupings and loadings.

It is important however to avoid reading too much into a correlation coefficient because causal relationships cannot be inferred from correlations alone. As factors

are derived from correlations the same argument would apply to factor analysis as with correlation coefficients. Similarly there is a danger with factor analysis of attempting to interpret the factors to fit with the initial hypothesis of the research (McNemar , 1951).

In interpreting the significance of factor loadings it has been suggested (Child, 1970) that provided the sample is not too small (N= 50 at least) loadings greater than $\pm$ 0.3 can be considered. In the factor analysis conducted for this study two aspects were considered - the number of variables and the size of the sample. It is suggested for factor analysis that the sample should be at least five times greater than the number of variables which are being used for the factor analysis. In this case there were 54 subjects in the sample, therefore the number of variables were limited to the nine organisational climate variables which were identified as being the most appropriate for the school setting and for the purposes of the intervention study.

FACTOR 1

Three items with a factor loading of + or - 0.50 are contained within factor 1 which accounts for 41.3% of the variance in the sample.

The items are presented in hierarchical order (Table 32).

Table 32 Structure of Factor 1

ITEM	FACTOR LOADING
Management concern for employee involvement	0.86
Job Challenge	0.837
Administrative efficiency	0.74

The term **'leadership insight'** will be utilised to encompass the dimensions in this factor. Job challenge is an important aspect of maintaining motivation and correlates significantly and positively with motivation as measured by the GEMOS scale (<0.01). The management therefore have some responsibility to ensure that 'challenge' is present and this can be accomplished partly through showing some concern for employee involvement. Combining these factors would display management to be caring but also insightful in realising that concern for employee involvement would help to ensure job challenge thus maintaining motivation and minimising teacher work stress. The correlation between PC1 and GEMOS is significant and negative (<0.001).

It is also proposed that school administration is an important element in the construction of the intervention programme. It correlates significantly and negatively with perceived non-satisfaction of needs (PERNOS <0.001). This dimension is also a responsibility of the school management. It is important for staff to perceive the administration as efficient and therefore administration efficiency may be an

important factor in decreasing work stress (significant negative correlation were found between PC1 and administrative efficiency <0.05), motivation (<0.03) as well as job satisfaction (<0.001).

The term **'leadership insight'** therefore may be an appropriate term for factor 1.

FACTOR 2

Four items with a factor loading of + or - 0.50 are contained within Factor 2 which accounts for 32.2% of the variance. The items are presented below

Table 34 Structure of Factor 2

ITEM	FACTOR LOADING
Altruism	0.826
Readiness to innovate	0.667
Scientific and technical orientation	0.629
Open mindedness	0.501

The term which could describe this factor is **'innovatory climate'**.

Both altruism and open mindedness relate to how aware the workforce is of the needs and views of colleagues. This promotes an exchange of views within a constructive and supportive atmosphere. This provides teachers with a feeling of being valued and providing a meaningful role in the development of any proposed innovation. This was found in a study undertaken by Tollan (1990) which indicated that the improvement in group discussion which took place following an intervention programme was largely responsible for the improvement in school ethos.

Both readiness to innovate and scientific and technical orientation relate to the actual conditions for innovation and these together with the other two dimensions in this factor provide the overall climate for innovation. For example teachers in a school staff may feel 'ready to innovate' but if there is a lack of open mindedness and goodwill (altruism) then the proposed innovation may fail through staff disagreement and interpersonal aggression.

Not surprisingly a significant negative corelation (<0.05) was evident between interpersonal aggression and open mindedness.

It is felt therefore that it would be appropriate to term this factor **'innovatory climate'**.

It was also felt that it may be interesting at this stage in the research study to conduct a factor analysis on the Psystress variables.

FACTOR 3

Two items with a factor loading of + or - 0.50 are contained within factor 3 which accounts for 26.1% of the factor variance.

The items are presented below

Table 33 Structure of Factor 3

ITEM	FACTOR LOADING
Interpersonal Aggression	-0.772
Industriousness	0.883

The term which could describe this factor is **'workplace ethos'**. This implies that interpersonal aggression is minimised when the workforce is motivated and interested in the work. Both these variables show highly significant correlations with variables relating to satisfaction of needs and work related stress. Interpersonal aggression correlates positively with perceived non-satisfaction of needs (<.05 as well as emotional response to stress ERST <0.001). Industriousness correlates negatively with work related stress (WRST1 <0.04, WRST2 <0.04). Proctor (1993) found using a 'school ethos scale' that scores for low anxiety schools were constantly higher regarding "cheerfulness" and "supportiveness" in the ethos scale. One would expect therefore that if the school staff were industrious and this had a positive effect on interpersonal aggression, this would be equivalent to Proctors' 'low anxiety' schools which had a cheerful and supportive school ethos. It seems therefore that it is appropriate to name this factor **'work ethos'** because of its importance to school supports and work stress.

The results of this Principal Components Analysis using the Varimax rotations are shown below.

Table 35 Factor Analysis - Psystress Variables - Factor 1

This factor shows 6 items and accounts fo 50.6% of the variance.

ITEM	FACTOR LOADING
PCI	0.736
SOC.SUPP	-0.763
ERST	0.777
PERNOS	0.696
GEMOS	-0.656
PSYSOM	0.619

Table 36 Factor Analysis - Psystress Variables - Factor 2

This factor shows 2 items and accounts for 31.2% of the variance.

ITEM	FACTOR LOADING
WRST1	0.876
WRST2	.77

Table 37 Factor Analysis - Psystress Variables - Factor 3

This factor shows 2 items and accounts for 18.2% of the variance.

ITEM	FACTOR LOADING
DEV.PERES	0.909
PERES	0.513

The 3 factors display an extremely interesting pattern and appear to confirm the psystress model which underpins this research study.

The six items in factor one display the framework of the model with stress generation and stress responses included and incorporates the importance of social supports and motivation. It is worthy of note therefore that these principal variables within the Psystress model should be contained within the same factor.

Factor 2 shows the relationship between the two work related stress variables (WRST1 and WRST2) and similarly Factor 3 shows the role of responsibility and concern and indicates that it is a separate factor from those included in the psystress model. Indeed responsibility and concern may relate more to items within the organisational climate dimensions such as "task orientations" (<0.05) and intellectual orientation (<0.02).

Discussion

As a development from studies one and two, this study aimed to examine aspects of organisation, particularly organisational climate, within schools.

The first hypothesis of this study stated as in studies one and two that Hinton's (1992) theoretical model of teacher stress would be a valid and appropriate model of examining work stress among teachers. Perceived Coping Incapacity is viewed as the primary stress generation factor in Hinton's model. Other factors which contribute to stress generation are perceived non-satisfaction of needs and perceived social supports. The present study identified a significant positive correlation between Perceived Coping Incapacity (PCI) and perceived non-satisfaction of needs (PERNOS) and a significant negative correlation between Perceived Coping Incapacity (PCI) and perceived social supports (SOCSUP). These correlations indicate that where there are high levels of perceived non-satisfaction of needs there will also be high levels of Perceived Coping Incapacity and where there are low levels of perceived supports there will be high levels of Perceived Coping Incapacity. These results would be predicted by Hinton's stress model.

In Hinton's model the stress response is manifested physiologically, behaviourally and emotionally. Physiological stress responses are measured by the Psychosomatic Ailments Scale (PSYSOM) and the Self Medication Scale (SELF.MED), behavioural stress responses are measured by the work behaviour

stress response scales (WRST1 and WRST2), and emotional stress responses are measured by the emotional response to stress test (ERST). In accordance with Hinton's model, where there is Perceived Coping Incapacity there will be corresponding stress responses. The present study supports this contention. Significant positive correlations were noted between PCI and PSYSOM, between PCI and WRST1, between PCI and WRST2 and between PCI and ERST.

An important component of the stress process, according to the psystress model, is the level of general motivation, which is seen as a moderating variable in the process. The lower general motivation is, the higher Perceived Coping Incapacity will be. In line with this, the data from this study produced a significant negative correlation between PCI and the General Motivation Scale (GEMOS).

The factor analysis which was conducted on the psystress variables further support the model. All the psystress variables, apart from the two behavioural ones WRST1 and WRST2 are in the same factor (factor 1). It is also interesting that WRST1 and 2 should be linked in the same factor (factor 2). This highlights the appropriateness of the instruments constructed and indeed the strength of the model.

These results therefore confirm the view suggested by the two previous studies that the psystress model is applicable to the teaching profession. The model correctly predicted the significant correlations that were obtained. Thus hypothesis (1) of the present study can be accepted: The theoretical model of stress (PSYSTRESS) has been shown to be a valid model of examining work stress among teachers.

From the Results Section it can be seen that a number of significant relationships were revealed in the correlation tables.

Hypothesis two of this part of the research, the relationship between organisational climate of teacher work stress, will now be discussed.

In the literature review it was stated that school supports can act as a buffer against stress (Lucas, Wilson and Hart, 1986). In Hinton's stress model lack of perceived social supports can be an important stress generation factor. The correlation matrix revealed a number of significant relationships with the Social Supports Scale (SOCSUP) and the other variables. SOCSUP correlated significantly and negatively with the Perceived Non-satisfaction of Needs Scale (PERNOS), demonstrating that teachers believe that it is important for them to have social supports. The absence of social supports may affect teachers' satisfaction with their work. This is demonstrated further by the fact that SOCSUP obtained significant and negative correlations with the Psychosomatic Ailments Scale (PSYSOM) and the Emotional Response to Stress Scale (ERST). This shows that lack of perceived social supports can be related to physiological and emotional stress responses, as would be predicted by Hinton's model. Motivation is an important moderating variable in Hinton's stress model and SOCSUP obtained a significant and positive correlation with GEMOS, the General Motivation Scale. Lack of social supports can increase the likelihood of demotivation and possible burnout (Zabel and Zabel, 1982).

SOCSUP correlated significantly and positively with the climate dimensions job challenge (jc), management concern for employee involvement (mcei) and administration efficiency (ae). Job challenge refers to staff having the opportunity to develop skills, being encouraged for creativity and generally being challenged by their work. This demonstrates that an important support against stress for teachers is for their work to be challenging. Hinton (1991) and Cox (1980) stated that the perceived demands of the work situation are important in determining levels of stress and Cox emphasized that an underload of demands could be just as stressful as an overload of demands.

'Management concern for employees' involvement' refers to how approachable management are, for example whether they consult staff in decision making. The correlation between this dimension and SOCSUP illustrates the point that levels of interpersonal communication within the school organisation seem to be one of the most effective supports (Trendall, 1984); Sarras, (1988). Dunham (1980); Galloway (1982) and Wilkinson (1988) stated that to increase social supports in schools and reduce work stress, teachers needed to be able to discuss problems and air their opinions. Kearney and Turner (1987) suggested that the approachability of school management contributed significantly to levels of stress.

Sarras (1988) said that staff not being told directly about decisions could increase stress and this can sometimes be due to poor school administration. The correlation between SOCSUP and administration efficiency thus indicates that teachers feel more supported if they are kept informed of what is going on in school. Thus school

organisational factors are important in determining the level of social supports perceived by teachers.

The influence of motivation on the stress process is emphasized by a number of significant GEMOS correlations (General Motivation Scale). GEMOS obtained a significant and negative correlation with the Perceived Non-satisfaction of Needs Scale (PERNOS). This indicates that low levels of general motivation increase perceived non-satisfaction of needs, which is a primary stress generation factor. GEMOS also correlated significantly and negatively with the work behaviour stress response scale (WRST2) and the Emotional Response to Stress Scale (ERST). Thus low levels of general motivation lead to increased behavioural and emotional stress responses. These correlations substantiate Hinton's claim that general motivation is an important moderating variable in the stress process. They also indicate that teachers with low general motivation will be less able to function efficiently in their jobs because of the corresponding stress they will experience. Motivation in the teaching profession is an area which requires attention and will be an important aspect in the intervention programme.

GEMOS (General Motivation Scale) also correlated significantly and positively with the organisational climate dimensions management concern for employee involvement (mcei), readiness to innovate (rti), scientific and technical orientation (sto), intellectual orientation (io) and job challenge (jc). The correlation with management concern for employee involvement illustrates further the importance of interpersonal communication within the school organisation. Staff will feel more

motivated if management are approachable and will listen to their opinions. Dunham, (1980, 1992) emphasized that teachers would experience more stress if they felt unable to influence their superiors. Again this is an important aspect and one which will need to be addressed in the intervention programme. The factor analysis conducted in this study identified two factors which relate to this - factor 1 'Leadership Insight' and factor 3 'Innovatory Climate'. Both these factors relate to the need for management to prepare for innovation by creating an appropriate climate for innovation. This can be achieved if management show sufficient insight to be aware of the needs and demands of the staff and particularly an appropriate forum for discussion and decision making.

The organisational climate dimension 'readiness to innovate' refers to how receptive management are to new ideas, educational changes and forward plans. This correlation indicates that staff are likely to feel more motivated in an environment which is flexible and conducive to change as opposed to an environment which is static and takes little notice of what is going on around it. Related to this are the correlations between GEMOS, 'scientific and technical orientation', 'intellectual orientation' and 'job challenge'. In general these 3 climate dimensions refer to how stimulating the job is made for teachers. 'Scientific and technical orientation' refers to whether management encourage staff to participate in research and try out new teaching methods. 'Intellectual orientation' refers to whether or not staff are encouraged to seek intellectual stimulation; and 'job challenge' refers to whether or not staff are given the opportunity to be creative and develop their skills. These correlations illustrate that motivation will be higher in teachers where the school

organisation seeks to encourage staff to develop their full creative potential and makes their jobs challenging and stimulating. These correlations can be related to the dimensions of 'management concern for employee involvement' and 'readiness to innovate' because a school organisation which encourages discussion and is open to change is also likely to be one which is open to staff widening their horizons and being stimulated by their jobs. Organisational factors therefore seem relevant in determining levels of general motivation among teachers.

The Perceived Responsibility and Concern Scale (PERES) correlated significantly and positively with both teaching position (TM) and the total number of years teaching experience (EXPER). Analysis of the raw data suggests that it is school management and those teachers with the greatest years total teaching experience who perceive the most responsibility and concern.

The Perceived Non-satisfaction of Needs Scale (PERNOS) correlated significantly and positively with the Emotional Response to Stress Scale (ERST) and the work behaviour stress response scale (WRST1). These intercorrelations provide further support for Hinton's model of stress. Perceived non-satisfaction of important needs is considered a primary stress generation factor in the model and this can manifest emotionally, accounting for the correlation with ERST, and behaviourally, accounting for the correlation with WRST1. ERST and WRST1 correlated significantly and positively indicating that the 2 factors are related. ERST also correlated with the Psychosomatic Ailments Scale (PSYSOM), which measures the physiological

response to stress. These correlations are in line with Hinton's stress model, which would predict that relationships would exist between these variables.

Significant negative correlations were obtained between PERNOS and scientific and technical orientation (sto) and between PERNOS and administration efficiency (ae). Scientific and technical orientation refers to whether school management are concerned with developing the potential of their staff. The results have already indicated that this is an important factor for staff in terms of their general motivation. Its negative correlation with PERNOS demonstrates further that it is a prominent feature of teacher's requirements because it indicates that if staff feel they are **not** being given the opportunity to develop their potential, they perceive that an important need is not being satisfied.

'Administration efficiency' refers to how well information is circulated around the school and whether or not work is properly organized and planned. That this dimension correlates significantly and negatively with PERNOS demonstrates that staff perceive an important need is not being satisfied if their school has an inefficient administration. Perceived non-satisfaction of needs generates stress and this supports the point that Sarras (1988) made that a poor school administration can increase levels of stress.

The Emotional Response to Stress Scale (ERST) correlated significantly and negatively with 'management concern for employee involvement' (mcie) and significantly and positively with 'interpersonal aggression' (ia). The importance of

management concern for employee involvement for teachers has been discussed already at some length. Its negative correlation with ERST would be expected. This correlation indicates that school organisations where management have little concern for employee involvement are likely to be those in which teachers suffer from high levels of stress.

The correlation between ERST and interpersonal aggression would also be expected. Interpersonal aggression refers to whether relations are hostile between staff members and whether arguments are common. The correlation with ERST demonstrates that a school climate like this, where staff relations are poor, is likely to lead to emotional stress among some teachers.

The work behaviour stress response scales WRST1 and WRST2 correlated significantly and positively. This indicates that they are related and when one is present the other is also likely to be present. WRST2 also correlated significantly and negatively with the climate dimension future orientation (fo). Future orientation refers to the emphasis that is laid on planning ahead in the school organisation. This correlation suggests that in schools where there is no future planning teachers are more likely to experience work behaviour stress response, such as making mistakes and forgetting to do things. This may be because the school is generally not very well organised. Again this highlights some important points which need to be considered in the development of the in-service school programme.

A significant and positive correlation was noted between the Emotional Defensiveness Scale (EMOT.DEF) and the climate dimension 'scientific and technical orientation'. The Emotional Defensiveness Scale rates subjects on their interactions with others. It asks subjects whether they generally behave reasonably and logically or whether they tend to behave emotionally. Scientific and technical orientation refers to whether or not the school organisation allows, for example, wide discussions and staff research. It is suggested that the correlation with the EMOT.DEF scale reflects the fact that schools where staff members behave towards each other reasonably on the whole, are likely to be the type of schools where rational discussions can take place and research can flourish.

The Perceived Organisational Change Scale (POG) was found to correlate significantly and positively with the total years of teaching experience (EXPER) and the length of time the teacher had served in the present post (SERV). Wilkinson (1988) suggested that teachers with the longest total teaching experience are likely to be more concerned with and more stressed by organisational changes.

A significant negative correlation was also obtained between perceived organisational change and the climate dimension interpersonal aggression (ia). This result suggests that where there is more perceived organisational change there is less interpersonal aggression. Why this should be so is not obvious. However, after re-examination of the raw data it is suggested that this correlation may have occurred by chance because a few subjects who scored particularly highly on the interpersonal aggression dimension did not perceive there to be a high level of

organisational change. Moreover there is a highly significant negative correlation between interpersonal aggression and industriouisness (<0.01) which indicates that when teachers are extremely busy in work tasks, interpersonal aggression is minimised.

The questionnaire completed by teachers in this study included the Eysenck Personality Inventory. The purpose of this was to identify teachers who obtained high scores on the neuroticism scale, because these teachers will have a tendency to view external events as more threatening and stressful. The literature review detailed a number of studies where neuroticism accounted for a large proportion of the variance. In Fotheringham's (1991) study neuroticism scores correlated significantly and positively with PCI, PYSOM, PERNOS, ERST and WRST1 and WRST2, and correlated significantly and negatively with GEMOS and SOCSUP.

In the present study significant positive correlations were noted between EPI and PCI, PYSOM, PERNOS, ERST and WRST1. A significant negative correlation was noted between EPI and EMOT.DEF. Thus high neuroticism scores were related to high PCI, PYSOM, PERNOS, ERST and WRST1 scores and low EMOT.DEF scores. Neuroticism did not correlate with as many variables in the present study as it did in Fotheringham's study. However, the implication remains that neuroticism may have contributed to some of the variance obtained in the present study. An examination of the raw data did not reveal unusually high neuroticism scores in any one school.

The neuroticism scores of the EPI also correlated significantly and negatively with the climate dimensions future orientation (fo) and scientific and technical orientation (sto). This indicates that subjects who had high neuroticism scores tended to have low future orientation and low scientific and technical orientation scores. 'Future orientation' refers to planning ahead and 'scientific and technical orientation' refers to the interest staff have in research, innovations and change. It is suggested that teachers who score high on the neuroticism may not be interested in these areas because they find their present situation stressful enough without concerning themselves with the future and becoming involved in other areas.

Thus a number of correlations have been revealed that provide further support to Hinton's (1991) theoretical model of stress, in relation to perceived stress among teachers. Of greater relevance to this study however, are the correlations noted between stress factors and dimensions of the organisational climate. Dimensions of the organisational climate were identified as playing a role in teacher's perceived social supports, level of general motivation, perceived non-satisfaction of needs, emotional stress responses, work behaviour stress responses and emotional defensiveness. Hypothesis two of this part of the study can therefore be accepted, which states that the school organisational climate will be shown to be influential in generating stress among teachers and this clearly has implications for the development of the intervention programme.

Tables 12 - 30 also revealed that a number of significant relationships existed between various climate dimensions. The dimension termed leader's psychological

distance (lpd) correlated significantly and positively with rules orientation (ro) and conventionality (con). This suggests that schools where management are distant and unapproachable are also likely to be those where strict adherence to school rules is expected and a conventional approach is taken towards dress codes and manners.

This is an important issue since it relates to the formal/informality of the school organisation and this may affect how staff perceive the management, the school organisation and the school ethos.

Questioning authority (qa) obtained a significant negative correlation with the climate dimension emotional control (ec). This correlation implies that a climate where management do not allow any criticism of decisions will promote a rigid atmosphere where staff keep their feelings and opinions to themselves.

Management concern for employee involvement (mcei) correlated significantly and positively with open mindedness (om), scientific and technical orientation (sto), intellectual orientation (io), job challenge (jc), administration efficiency (ae) and community (com). It can be seen that whether or not management are prepared to listen to staff and take their opinions into account has a substantial effect on the whole school environment. Its correlation with 'open mindedness' indicates that management who take staff feelings into account are likely to discuss mistakes openly and allow the expression of personal beliefs. The correlations with 'scientific and technical orientation', 'intellectual orientation' and 'job challenge' illustrate that

approachable management are also likely to encourage staff to develop creative potential, promate intellectual stimulation and try out new skills and talents. Management who are concerned to involve their employees with what is going on in the school need to have an efficient administration, so that information can be circulated smoothly around the school. These factors will all be closely considered in the development of the intervention programme. The correlation with community indicates that management who are concerned with the interests of their staff are likely to be concerned with the interests of the wider community outside the school.

Open mindedness (om) correlated significantly and negatively with emotional control (ec) and significantly and positively with scientific and technical orientation (sto), intellectual orientation (io), job challenge (jc), sociability (soc) and community (com). The climate dimension open mindedness refers to whether or not staff are encouraged to speak freely in the school, for example if mistakes and strong personal beliefs are discussed freely. A climate such as this would not be one where staff keep feelings and emotions under control. Scientific and technical orientation, intellectual orientation and job challenge relate to management encouraging staff to develop skills, talents, to take part in research and educational discussions. A climate of open mindedness is likely to foster this approach. The climate dimension sociability refers to whether or not staff are given the opportunity to socialize together. Community refers to whether the school is involved with the interests of the community outside the school. A school with a climate of openness is likely to encourage these kind of interactions.

The climate dimension future orientation (fo) refers to whether or not planning ahead is regarded as a priority in the school. A school organisation which encourages staff to look ahead is also likely to encourage staff to develop wider interests and generally broaden their horizons, hence the significant, positive correlation with scientific and technical orientation (STO), intellectual orientation (io) and job challenge (jc). Future orientation also correlated significantly and positively with administration efficiency (ae). In order for a school to make long term plans it has to be organised and has to ensure that all members of staff are kept informed of these plans, without an efficient administration this would be impossible. The nature and effect of the school communication system will be featured in the intervention programme but also in order to obtain staff views on this it will be included in the semi-structured interviews. Future orientation correlated significantly and positively with the egalitarianism dimension (eg). This dimension refers to whether staff are treated equally and if there is just recognition for merit. The correlation between these dimensions indicates that in this sample schools which were concerned with planning for the future were also those where staff were likely to be treated on an equal basis.

Scientific and technical orientation (sto) correlated significantly and positively with intellectual orientation (io), job challenge (jc), readiness to innovate (rti), altruism (alt) and community (com). Its correlation with intellectual orientation and job challenge was inevitable given that the three are similar in nature and have been linked together throughout the study. The correlation with readiness to innovate indicates that management who encourage staff to seek wider interests are also those who

are willing to implement new ideas and forward plans. The climate dimension altruism refers to whether there is an attitude of cooperation and helpfulness among staff members. Community refers to whether the school concerns itself with the interests of the wider community. The correlation of these dimensions with scientific and technical orientation suggests that schools where management have an encouraging attitude towards staff are likely to be those where staff have a cooperative helpful attitude towards each other and to those outside the school.

Intellectual orientation (io) correlated significantly and positively with job challenge (jc), administration efficiency (ae), readiness to innovate (rti) and community (com). Intellectual orientation refers to the encouragement staff are given to seek intellectual stimulation, it is closely related to scientific and technical orientation as well as job challenge. In light of this it is not surprising that the same correlations were obtained with intellectual orientation as were with scientific and technical orientation, and the same conclusions can be applied.

Administration efficiency (ae) correlated significantly and positively with rules orientation (ro), conventionality (con) and job challenge (jc). Administration efficiency refers to how well information is circulated throughout the school and whether work is evaluated frequently. The correlation of this dimension with rules orientation suggests that schools which have an efficient administration are also likely to be those where adherence to school rules is expected and attendance is checked frequently. The correlation with 'conventionality' suggests this is also likely to be the type of school where there is an expected manner of dress and formal

relations between staff. Job challenge refers to whether or not management aim to make work stimulating and challenging for staff. Its correlation with 'administration efficiency' may reflect a certain style of management which is very aware of its staff, in that it seeks to have good levels of communication with staff and seeks to make their jobs challenging as well as interesting.

The climate dimension interpersonal aggression (ia) obtained significant and negative correlations with industriousness (ind) and sociability (soc). The negative correlation with industriousness is quite important because it implies that a school climate where hostile relations are common is likely to be one where there is less impetus to work. This may be because staff spend time feuding and arguing, thus wasting time and effort. The negative correlation with sociability is inevitable because if staff are not on good terms with one another they are unlikely to socialize together.

The last two correlations were between sociability (soc) and community (com) and sociability and altruism (alt), both significant and positive. The implications of these correlations are that schools where staff get on well and enjoy each other's company are also likely to be schools where staff cooperate and take an interest in each other's difficulties. These are also likely to be schools where staff members are willing to become involved in community events and projects.

The correlation tables made it possible to identify which of the organisational climate dimensions were related. This study anticipated that groups of dimensions would be

related and this would be of benefit in the development of the in-service stress management programme to be presented to the whole school.

The factor analysis which was conducted on nine of the twenty organisation climate dimensions confirms the relationship between some climate dimensions. Factor 1 for example displays the relationship between 'management concern for employee involvement', 'job challenge' and 'administrative efficiency' and further highlights the role of the management in ensuring an appropriate work climate for teachers to maintain motivation. 'Leadership insight' therefore would appear to be an appropriate term for this factor.

Similarly with factor 2 which contains two factors 'interpersonal aggression' and 'industriousness' and implies that a healthy workplace ethos could help to check and minimise interpersonal aggression. Again this is an extremely important aspect in relation to the development of the intervention programme.

Factor 3 relates to innovation and particularly the conditions for innovation such as open mindedness and the orientation or views of the staff regarding educational developments (scientific and technical orientation). This factor again is extremely important in the development of an in-service programme focusing on dealing with innovation and change.

This study also compared 2 of the schools. Analysis of the scores for each school, on all of the different variables, appeared to reveal that stress scores were higher in

the largest of the schools and lower in the smallest of the schools. Unfortunately the smallest school had only 4 staff members and it is not possible to draw conclusions from a sample so small. To counter this the next smallest school, which has 7 staff members, and the smallest school were combined. These 2 schools were then treated as though they were one complete school. The small school thus had 11 subjects and the large school had 17 subjects. T-tests were then carried out to determine which, if any, of the variables the 2 schools differed (see Table 31).

The t-tests carried out demonstrated that significant differences existed between the 2 schools on Perceived Coping Incapacity and on the Social Supports Scale. Both of these factors are viewed as primary stress generators in Hinton's conceptualization of the stress process. If individuals perceive they are unable to cope with the demands of the situation and they believe that there are no social supports available to them then they will experience stress. The t-tests had thus shown that staff members from the larger school experienced significantly more Perceived Coping Incapacity and perceived significantly less social supports. It was necessary to try and explain why this should be so.

One possible explanation could have been that staff from the larger school had a general tendency to perceive events as more stressful. If this was the case then staff from the larger school should have significantly higher scores on the neuroticism scale of the Eysenck Personality Inventory. However, t-test demonstrated that there were no significant differences between the mean

neuroticism scores of the 2 schools. An alternative explanation had therefore to be sought.

The nature of this study made it logical to try and determine whether the differences between the schools could be explained by differences in the organisational climates of the 2 schools. Thus t-tests were carried out on all the climate dimension scores of the 2 schools. By referring to Table 31 it can be observed that significant differences were noted on two of the organisational climate dimensions, which were management concern for employee involvement (mcei) and job challenge (jc). The smaller school had management who were prepared to listen to their staff and take account of their feelings and opinions. The management of the smaller school also provided a more challenging atmosphere for staff and encouraged them to develop their talents and acquire new skills.

It is suggested that the fact that these two climate dimensions applied to a greater extent in the smaller school corresponds directly to there being lower levels of Perceived Coping Incapacity and higher levels of perceived social supports in that school. It would follow from this that schools where these organisational climate dimensions do not apply would have higher levels of Perceived Coping Incapacity and lower levels of perceived social supports, as is the case for the larger school.

Thus the comparison of the 2 schools lends support to hypothesis (2) of this part of the study which states that dimensions of the school organisational climate are influential in generating stress among teachers. These results also allow the view to

be drawn, that different organisational and managerial approaches such as those observed in the 2 schools contributed significantly to the different levels of stress factors in the schools.

The organisational climate dimensions 'management concern for employee involvement' and 'job challenge' correlated significantly with a number of the stress variables as well as with other climate dimensions. It is therefore suggested that these two organisational climate dimensions in particular may contribute to stress in teaching and should therefore be considered in the in-service stress management programme.

Before concluding this chapter, the fact that it was the smallest and the largest of the schools that differed significantly needs to be considered. It may have been that the schools differed simply in terms of their organisational climate and that this bore no relation to their size. On the other hand the size of the school may have had a direct influence on its organisational climate. It is perhaps the case that because smaller schools have fewer staff members the management are more able to relate personally to their staff and consult with them. The fact that they know staff on a more personal level may also allow management to ensure that their staff's work is kept as interesting and as challenging as possible.

SUMMARY

The primary aim of this part of the research was to investigate the relationship between organisational climate dimensions and measures of work stress. The results of this study made it possible to establish the existence of significant relationships between dimensions of the organisational climate and teacher's perceived levels of social supports, their level of general motivation, their perceived non-satisfaction of needs, their emotional response to stress, their work behaviour response to stress and their level of emotional defensiveness. The conclusion can therefore be drawn that school organisational climate is an influential area in work stress among teachers and therefore must be an area to be addressed in an in-service programme to school staff.

Further analysis suggested that the climate dimensions management concern for employee involvement and job challenge play a prominent role in stress generation among teachers. This conclusion was reached because it was found that a school high on perceived coping incapacity and low on perceived social supports was particularly low on these climate dimensions, as compared to a school low on perceived coping incapacity and high on perceived social supports, which was high on these dimensions.

The implication of these conclusions is that the way a school is organised and managed will play a major role in determining the levels of stress experienced by teachers. Specifically the attitude management hold in regards to involving their

staff with what goes on in the school and whether they seek to make work interesting and challenging for staff, will have an influence on teacher work stress.

The results of this part of the research also suggest that attention needs to be focused on management's attitude and approach towards their staff. Management must be willing to get to know their staff individually and this involves listening to their opinions and taking account of their needs. It is suggested that relationships between staff and management could be improved if management saw staff on an individual basis at least once a year to discuss any difficulties they were experiencing and also to discuss areas of personal interest which could help broaden their outlook and improve their perspectives. By doing so management would be demonstrating their concern for staff in terms of their well-being and also their careers. In this way it is hoped that the climate dimensions 'management concern for employee involvement' and 'job challenge' could be improved within schools. The intervention programme, which is described in the next chapter, therefore considered the results of this part of the research and utilises opportunities within the programme for these potentially important areas to be a principal focus in addressing whole-school needs in relation to work stress and organisational and curricular innovation.

Chapter 11

Development of a School Stress Management Programme

DEVELOPMENT OF A SCHOOL STRESS MANAGEMENT PROGRAMME

Whole School Intervention - Definition, Characteristics and Theoretical Origins

A whole school intervention programme should address the relevant components of organisational climate and school culture. The focus of whole school programmes should therefore be directed towards an understanding of personal and interpersonal strategies as well as an analysis of organisational structure, resources, climate and culture.

The starting point for whole school intervention should be the product of initial meetings with the whole school staff during which the areas to be addressed will emerge. Thus the programme will be generated by the staff themselves. Dunham (1995) suggests that three important questions need to be addressed before a whole school programme can commence. These questions which should be directed to the school staff are - 'What does your work involve?'; 'Which parts of your work do you find acceptable and enjoyable?'; and 'What pressures of your work cause the greatest problem for you and your colleagues?'.

The responses from questions such as those above would generate information on work pressures and provide some insight into whole school issues. In addition to these questions, Dunham asked staff to rank the top ten sources of occupational stress from a list of potential sources which had been earlier identified from a sample of 1,790 teachers (Travers and Cooper, 1990). It is interesting to note that the top

five of these sources of stress relate to changes and support - e.g. constant changes, national curriculum, lack of information about changes, lack of non-contact time and lack of government support. This type of exercise should provide some insight into the staff pressures and provide some direction for the whole school intervention. In Dunham's study members of staff also cited lack of senior management competence and understanding and lack of support from colleagues as additional sources of stress. These would clearly provide important pointers for the development of an intervention programme. It is important however that a stress audit is conducted with the whole school staff.

Dunham suggests that if a full staff audit is conducted and a whole school intervention programme is conducted the organisational resources of the school should be strengthened. In Dunham's study for example some of the outcomes of the intervention included the following - active encouragement in the setting up of support groups; training in stress management techniques and on identifying stress causes and reactions and that the stress management training should be a component of the staff development 'inset' programme and should follow a stress audit of the whole school.

The important point to consider in relation to the above is that these recommendations emerged from the actual intervention programme which was itself generated by the school staff. This is particularly relevant to this current research although the method used here to obtain base line information is the responses from the psystress self report instruments. It may be argued therefore that failure to

conduct an actual staff stress audit specifically for the intervention programme at the first meeting identifies a weakness in the actual programme and can have implications for the results and effectiveness of the programme. It should however be noted that consistent with one of the recommendations from Dunham's research the intervention programme was seen as a component within the school's overall 'inset' programme. This actual necessitated including the programme in the school's development plan for the following year and the development plan being approved by the education authority.

Using the 'Psystress' and the 'Business Organisation Climate Index' (BOCI) to obtain the information which may otherwise have been obtained from a stress audit placed considerable responsibility on these instruments to accurately obtain an indication of stress and organisational pressures. In relation to this the criticism made of the Psystress model (see Chapter One) and the Business Organisation Climate Index (BOCI) (see Chapter Four) should be considered. In summary though it can be noted that both these instruments were developed for purposes other than the conducting of school stress management training and indeed none of the instruments were actually developed specifically with teachers in mind.

It seems therefore that the rationale and the procedure for the development of the whole school intervention may well be flawed and certainly open to criticism. The whole school intervention may in fact not have actually identified whole school issues because of the manner in which the programme was developed and implemented. Instead the intervention programme used in this research may be

described as a whole staff programme because it assembled a number of aspects related to stress management and school organisation and packaged these for an in-service intervention to the whole staff. This is clearly different from a whole school programme.

Other types of stress management programmes could have been used as the principal intervention strategy in this research. These include programmes focusing directly on personal coping strategies through both palliative and direct action strategies. The former using relaxation techniques and the latter providing a prescriptive formula for each individual to follow. It is however suggested here that to effectively tackle stress in school an intervention programme needs to go beyond the personal and even the interpersonal and focus on the organisation of the school and in particular the role of social supports and the school management.

The present programme did not focus on the range of school factors which Dunham would suggest are necessary for whole school intervention and this may have some implications for the evaluation of the effectiveness of the programme.

Stress, Organisational Culture and Whole School Intervention -

Theoretical Issues

The principle of utilising a whole school intervention can be justified theoretically. Robson (1984) provides evidence of 'quality circles' within staff meetings which can

form recommendations to be implemented by the whole school. Studies also show the importance of the role of school management in this type of intervention and in particular in the prevention of stress (Dunham, 1995). The management therefore need to be motivated to support staff throughout the programme and the management themselves need to be personally and organisationally equipped to facilitate a whole school intervention. The view is encapsulated in for example, Adair's 'Three Circle Model' (1983) which indicates that for effective management the team leader must attach importance to three essential factors - the task, the team and the individuals in the team. The model therefore implies that the team leader needs to identify actions that help achieve the tasks, actions that help build and maintain team spirit and actions that develop and motivate individuals.

Maslow's model (1943) can also be used to justify a whole school intervention strategy. His staircase model of motivation which includes physiological state, safety, social factors, self-esteem and self-actualisation can be used to identify important elements within the school, such as respect, achievement and recognition, all of which have a role to play in a whole school intervention.

The development and implementation of a whole school programme should also be viewed within a framework which encompasses organisational culture. Handy's (1988) classification and description of different types of culture provides an example of a theoretical perspective which supports the implementation of a practical whole school intervention. The classification includes; power culture which is related to the role and importance of management; role culture which especially provides security

and stability; task culture which implies that a whole school intervention is necessary because tasks relate to the individual and the organisation; and person culture, which implies that the organisation supports the person. Clearly a whole school intervention programme would incorporate elements of those factors within Handy's classification.

Educational changes can have an influence on school culture and these can also help to provide some rationale and justification for implementing a whole school intervention. Dunham (1995) shows how the Education Reform Act (1988) strengthened the power culture and role culture in a school and simultaneously weakened the person culture. This is an important consideration because the present study takes place during a period of educational change and this will likely have an effect on the school culture. If school culture is to be influenced through a stress management intervention then the intervention would need to involve the whole school.

Whole school intervention can achieve positive changes in support and culture which other types of interventions may not (Dunham, 1995). For example an individual counselling model of intervention can certainly provide support for an individual teacher but this type of intervention does not take into account the cultural and climatic aspects of the whole school, factors which are essential for the development of personal and organisational supports. Dunham (1995) describes for example a set of guidelines for effective teamwork which includes clearly defined roles, positive ethos, open staff interaction and positive actions in implementing

decisions. These objectives could not be achieved as successfully with an individual counselling approach because they essentially rely on staff interaction and collective decision making.

It is also important to consider that in Dunham's study the programme emerged from the participants of the training programme. It is suggested therefore that a pre-packaged programme for whole school intervention will not have such a powerful effect in the implementation of change and supporting staff as one which is generated by the whole staff themselves during the initial stages of the programme.

A whole school programme therefore is one which considers a range of different factors. These factors include learning styles, management skills, management styles, motivation, school culture, teamwork, effective meetings, time management, implementing change effectively and developing personal organisational coping strategies. In order to deal effectively with teacher work stress one would need to address these factors and it can be argued that a pre-packaged programme would not deal with these effectively even if the whole staff were involved. Each school would display different cultures, climates, personalities and management styles and these factors in themselves may prevent a pre-packaged programme from being effective.

The present study failed to achieve the objectives outlined above, as those necessary for the implementation of a whole school programme, principally because it utilised the responses from a number of questionnaires. These responses

provided some evidence to support the stress model of 'psystress' used in this research but did not provide the type of information which would be necessary to develop a whole school programme. Furthermore three of the studies in this research took place in different schools and it may be argued that the findings from these schools may not have been specifically relevant to the school in which the whole school programme was delivered. Milstein and Golaszewski (1985) in a year long study examined different types of intervention programmes and suggested that different types of programmes lead to different results. They also suggested that the number of teachers participating and the support provided by the school management would influence the outcome. It is interesting as far as this current research is concerned that Milstein and Golaszewski noted that the organisational based programme was more effective than the individually based programme in changing teachers perceptions of student issues, responsibilities and resources. The individually based programme did little in fact to change the teachers perceptions of essentially those elements which may be described as organisationally based stressors. This study by Milstein and Golaszewski and the work of Dunham in particular provide further support for the rationale for the intervention programme proposed in this current research.

In developing the whole-school intervention programme a number of aspects examined in the studies reported on in this research were taken into account. These included personal organisation, supports and demands, organisational change and climate, curricular demands, communication within the school, staff social interaction, role of management and the role of the individual within the organisation.

The importance of these factors is further supported by studies from the literature, particularly Dunham (1992), Tollan (1990) and Proctor (1993).

The Whole-School Intervention Programme - Summary

The programme was divided into four sessions, each session principally dealing with one particular aspect. Session one focused on Personal Organisation. It was felt that it may be easier to engage the interest of the group if the initial focus was personalised and the group was able to directly relate this session to their workload. The outcome of this session was to provide the teachers with some guidance and a task which they could implement immediately. For this reason it was felt that an exercise on time management would be appropriate from the point of view of its relevance and practicality. This was in fact subsequently supported by the interviews which accompanied the implementation of the programme. These indicated that time management was a major consideration recognised by the teachers as an important element, but one in which they had little experience or training.

The second session was on school organisation. This is a central theme to this research. The study on the relationship between the different variables associated with teacher stress (chapter 8) highlighted associations between organisational change and the other variables. This was also evident in the subsequent studies on personal organisation and organisational climate (chapters 9 and 10). Additionally,

interviews carried out should show that different sub-groups existed within the school staff, for example support staff and school management, with different types of demands placed on them.

It was felt, therefore, that the intervention programme should address the roles of the different professionals involved in the organisation of the school and particularly how each group interacts with each other within the organisation of the school. The workshop activity in this session was directed to enhancing communication between members of the school staff and attempting to obtain some understanding of the difficulties each faced in carrying out their roles.

The theme of organisational supports was extended in session three. One of the recommendations from the recent study by Proctor (1993) looking at organisational aspects of the school in relation to teacher stress was that inter-personal and social supports should be given a high profile in a stress management programme. It was, therefore, felt that a programme appendix with follow-up exercises and activities should be constructed, using some activities which had already been developed and evaluated (Dunham 1992: Huzinski 1990). This appendix was aimed at fostering and developing some of the strands which the main programme highlighted - particularly concerning roles coping with change and inter-personal supports.

The fourth session focused on organisational climate and the relationship with organisational supports and organisational change. The study of organisational climate (chapter 10) had shown its relationship with teacher work stress and the

need for school supports. It was felt that particular dimensions of organisational climate, such as management concern, job challenge, social supports and readiness to innovate should be given the main focus. In addition to discussing organisational climate this session also developed the theme of organisational change, particularly concerning factors dealing with this within the organisation.

A fifth session was added to the programme at the request of the staff and headteacher. This involved a general summing up and reporting back. This took place six weeks after the end of the programme. Since the staff wanted the reporting back to focus on their particular school, it was important to obtain some qualitative data based on open-ended type questions. This was therefore obtained from the semi-structured interviews and from the questionnaires administered.

The programme was divided into different sections - programme outline, which provided an overview of the fours sessions, the programme workbook which described the components of the programme and the appendix which provided the additional follow-up activities. A 'feedback' component was also added to the programme and analysis of the responses from the semi-structured individual interviews of all staff.

The next section will present the programme outline and the programme workbook which was distributed to all participants. (for programme appendix and feedback presentation, see appendix 27 and 39).

TEACHER WORK STRESS,

ORGANISATIONAL CLIMATE AND SCHOOL SUPPORTS -

A WHOLE-SCHOOL PROGRAMME

Programme devised by Gavin Reid,

Department of Professional Development and Community Education,

Moray House Institute, Edinburgh.

PROGRAMME OUTLINE

BACKGROUND

Recent educational innovation relating to both the curriculum and school organisation may create some anxieties and work stress among staff (Reid, 1989, 1990. 1992. 1993: Proctor, 1993).

Schools currently face the challenge of administrative changes stemming from the impending devolution of responsibility for school resources and general management from the central regional authority to individual schools themselves. Additionally, curricular innovation has been ongoing now for a number of years and this has been reported as contributing to teacher work stress.

This whole-school programme in dealing with organisational climate, change and school supports will attempt to address some of the anxieties and work stress which may accompany curricular, administrative and organisational changes.

FOCUS

The focus for this whole-school programme will be on the following:

- personal organisation
- inter-personal support
- school organisation
- organisational climate.

Previous research studies (Reid 1989 - 1993: Proctor 1993) investigating teacher work stress and school supports show that the following factors may be of some importance:

- perceived non-satisfaction of needs
- social supports within school
- motivation
- job challenge
- staff involvement in decisions
- school administration

- inter-personal communication within school
- readiness to innovate
- role of school management
- personal organisation

The programme can be delivered in a flexible manner, to suit the requirements of individual schools.

The four sessions will, therefore, focus on these aspects and attempt to:

- develop an awareness of the different facets of school supports
- identify important features within the school organisational and organisational factors which may minimize the effects of work stress which may accompany major organisational change.
- provide feed-back to the whole staff on suggested approaches for developing a school framework or policy on school supports.

- **Framework for sessions:**

The framework for the four sessions consists of:

- **Personal Organisation**

  - time management

- planning and preparation
- diary and record keeping
- information gathering/general awareness.

- **School Organisation**

  - organisational components
  - organisational models
  - vulnerable aspects of organisations
  - staff interaction within organisational structures.

- **Inter-Personal Support within Organisation**

  - nature of inter-personal support
  - features of a supportive organisation
  - inter-personal support and teaching

- **Organisational Climate**

  - Role of management
  - Organisational climate dimensions
  - Assessing climate

The four sessions will include individual, small group and whole staff workshop activities with follow-up exercises for each session.

Information in relation to the school organisation and the school staff will be collected through questionnaire and interview. This will allow a final feedback session to take place after the programme has been completed.

Teacher Work Stress,

Organisational Climate and School Supports -

A Whole School Programme

Programme devised by Gavin Reid,

Moray House Institute, Edinburgh.

PROGRAMME WORKBOOK

Aims and introduction

Studies show that work stress in the teaching profession can be related to a number of factors. These factors include:

- perceived non-satisfaction of needs
- the need for social supports within school
- motivation
- job challenge
- lack of staff involvement in organisational decisions
- school administration
- interpersonal communication within the school
- readiness to innovate
- nature of school management
- organisational climate
- organisational change.

These sessions will therefore address these factors and relate them to school supports and organisational climate.

SESSION 1 - PERSONAL ORGANISATION

Each individual has a preferred level of personal organisation. To one individual this might be a highly structured, finely tuned organisational plan which leaves little room for flexibility, while another may prefer a much looser form of personal organisation. This is an individual preference. One particular form of personal organisation is not necessarily better than another. The effectiveness of a particular style depends on a number of factors, such as the school context, the demands placed on individuals and how their particular style fits in to the organisation of the school. So therefore in one type of organisation, your own particular style may be appropriate, but in a different organisational structure, it may be quite inappropriate. It is important, however,

- that you are aware of your preferred style
- that your preferred style is sufficiently effective to help you deal with the organisational demands of your job you do not feel de-skilled or devalued because of your preferred style.

Some aspects of one's personal organisation which need to be considered are:

- time management

- planning and preparation
- diary and record keeping
- information gathering preferences
- other personal preferences.

This session of the programme will look at these factors in the form of activities which will help you consider your own particular style and how this relates to the administrative and organisational demands of the school.

The first task below is on time management.

TASK:

- **Time Management**

  Rank the list below 1 - 7 e.g. 1 being the method you most prefer and 7 the least preferred>

  - Do you divide your working week into:
    - Tasks to be completed
    - Tasks to be completed and times when these will be done
    - Time available to do tasks as they appear
    - Week by week management timetable
    - Daily time management program,me

- Parts of day time management
- No real thought given to time management

- When you have completed the above, draw up a plan for the next week showing the tasks you need to complete and when these would be completed.
- When you have completed this, comment on your time management schedule, indicating the difficulties you may incur in its implementation. How might you overcome these potential difficulties? In what way can personal planning help to overcome these difficulties?

- **Planning and Preparation**

The next task follows on from the previous exercise in time management and it relates specifically to planning and preparation. How important is planning and preparation to you personally - does it present you with problems? What kind of problems?

Make a list of the difficulties which need to be overcome in planning and preparation.

Activity: initially in twos, then in whole group.

Discuss the difficulties you encounter in:

- planning and preparation

- diary and record keeping
- information gathering and school communication

- Should these aspects be important and if so why?
    - How can the gulf, if one does exist, between intentions and reality be overcome?
    - Can personal organisation be separated from school organisational factors?
    - List some possible time management strategies. Which do you prefer and why?

- **Diary and Record Keeping**

    - How important is this to your job?
    - Do you consult your diary entries daily, more than once a day, weekly or seldom?
    - Does keeping a diary present you with difficulties?
    - If so, make a list of these difficulties.

- **Information Gathering**

    - Do you consider yourself to be generally aware of what is going on in your school?

- Do you sometimes miss out on information? If so, why?
- How do you like information presented - for example:
- notice board
- memos

SESSION 2 - SCHOOL ORGANISATION

The aim of this session is to allow group members to identify different aspects of the school organisation, and particularly to examine the role of different groups within the organisation.

- **Different groups**

  - Education Authority
  - Headteacher
  - Deputy Head
  - Assistant Head
  - Teachers
  - Specialist teachers
  - Teaching auxiliaries
  - Parents
  - Administrative staff

- Janitors
- Domiciliary staff
- Pupils

- **Vulnerable aspects of school organisation - Activity**

  (see Programme Appendix - Appendix 27)

- **Staff interactions within organisation - Activity**

  (see Programme Appendix - Appendix 27)

  - Identify methods of interacting with others in your organisation. Compare your response with one other person.
  - List alternative means of interacting and discuss these with another person.
  - List all the methods in rank order, and discuss in whole group.

SESSION 3 - INTER-PERSONAL SUPPORT

Recent research (Procter, 1993) indicates that social supports within schools is one of the most valuable preventative measures for class teachers in relation to occupational stress.

This session will, therefore, focus on issues relating to inter-personal supports within school. Some examples of inter-personal supports include:

- ready access to management
- management concern for staff welfare
- staff concerned with colleagues' welfare
- peer approval
- management approval
- whole staff social activities
- common staff identify

- **Inter-Personal Support Diary**

Activity

Construct a personal diary for the last two weeks, showing how

(i) you have received inter-personal support

(ii) you have provided inter-personal support

SESSION 4 - ORGANISATIONAL CLIMATE and ORGANISATIONAL CHANGE

- **Role of Management and Managing Change**

(Activities in Programme Appendix)

(see Appendix 27)

- **Organisational Climate**

Organisational climate refers to those factors which relate to the functioning and the ethos of the school, particularly in relation to staff supports.

Some of the organisational climate dimensions include the following:

- leadership style
- questioning of authority
- egalitarianism

- management concern for employee involvement
- open mindedness
- emotional control
- future orientation
- scientific or technical orientation
- intellectual orientation
- job challenge
- task orientation
- industriousness
- altruism
- sociability
- inter-personal aggression
- rules orientation
- administration efficiency
- conventionality
- readiness to innovate
- community involvement.

Activity

- In groups of two, comment on these dimensions within your school. Indicate how they affect you personally and the school in general. Try

to list them in order of importance. How might you attempt to improve the dimensions which you feel are important.

- Feedback to whole group on climate dimension. Show how these can be assessed and addressed.

You should at this point identify priorities for the school in relation to organisational climate and managing organisational change. Try to arrange your feedback and prioritising in the following way:

CLIMATE DIMENSION	PRIORITIES FOR ADDRESSING THIS DIMENSION	HOW?

SESSION 5

FOLLOW-UP AND TUTOR FEEDBACK SESSION.

This tutor feedback session will take place around six weeks after the end of the programme. This feedback will focus on the general responses from the interviews with staff and from the observations made by the tutor during the sessions (see Appendix 39 for copy of O.H.T.'s used during the feedback session).

This chapter has shown how the in-service stress management programme was developed and implemented. It can be noted that the programme was essentially an experiential one, a feature of which was group discussion working towards an understanding of different positions of responsibilities within the school organisations. Many of the activities were contained in the programme appendix which all participants received and the summative feedback session attempted to pull together the different stands and views projected throughout the programme.

Chapter 12

Intervention Study - Procedure

INTERVENTION STUDY

Procedure

The aim of the intervention study was to develop and evaluate three different programmes which could be implemented under different conditions in three schools.

Two programmes were on teacher work stress, organisational climate and school supports, one of these was an individual stress management programme and the other a whole school programme (see appendices 23, 25, 26, 27). The third programme was on literacy difficulties (control group programme), (see appendix 35).

The three conditions were therefore; whole-school intervention; individual counselling and whole school control group (literacy programme).

It was seen as desirable to identify three schools matched for as many factors as possible. The three schools which were selected were therefore all within the same size range - the middle range of school sizes with between 12-20 members of staff. (With a staff of under 10 a school would be described as small in size or over 20, large). It was felt therefore that the middle range would be appropriate and practical for this study. Other important considerations were the base line level of P.C.I. and the desire of the staff to be involved in the study.

The P.C.I. responses from the base-line data were compared using an analysis of variance to determine any significant differences between the three schools in P.C.I. The results are displayed in Table 38.

Table 38 **Baseline Analysis of variance between the three schools on P.C.I.**

Variable	ss	df	ms	F	p
PCI	81.556	2	40.778	.187	.8311 (n.s.)

The results indicate that there was no significant difference in P.C.I. between the three schools. This is an important aspect in relation to the anticipated changes which may take place during the implementation of the programme. Clearly if one of the schools showed a significant difference in P.C.I. this may have had some implications for the results following the implementation of the stress management programme.

It was also important that participation should be on a voluntary basis and also that all staff should be willing to participate. It was important therefore to identify schools where whole school voluntary participation was possible.

Other important considerations related to current conditions of employment of teachers and the regional policy for schools. Teachers current conditions of service provide them with a democratic right as staff to decide on the nature of the in-service training. If the majority of the staff voted against any particular aspect of training

then it is very likely the head teacher would uphold that decision. The staff in all three schools identified had therefore to vote on the implementation of the programme in their school. A complication however, arose in the form of a trade union directive (E.I.S.) which suggested that members undertake no new initiatives during session 1994-95. This programme was deemed by the head teachers to be a new initiative and therefore it was not possible to implement the programme as had been intended during 1994-95 section. Trade union contact was established by both myself and my thesis supervisor to explain the nature of our enquiry and to establish union support for the following session. This was accomplished and the point was made to the staff in the schools that the programme had trade union support and participation did not contravene any trade union directive.

The regional education authority have strict guidelines regarding staff development and in particular school development plans. Each school has to submit a school development plan in May/June of each year for the following session. This plan would indicate how the schools intend to use the 'planned activity time'. This is time allocated to each school for staff training and it necessitates early closure of schools (usually half-day every two weeks). This development plan has to be approved by staff before being submitted to the directorate of the educational authority. It is then examined and approved. The intervention programme for this research therefore was included in the school development plan, approved by the staff and subsequently approved by the directorate of the regional education authority.

Dates and times were then arranged with the three schools for the implementation of the programme. All three programmes took place within the first term - that is from August - December 1995. Due to the time lag since the previous data was obtained from the schools it was decided to update the base line data to take account of some staff changes which had taken place during session 1994-95.

The base line data was obtained prior to commencing the programme from teachers in all three schools. This is displayed in the Results in Chapter 13.

On completion of the programme letters of thanks were sent to all schools and a feedback session was arranged for the school which completed the whole school intervention programme (see Appendix 39).

Chapter 13

Intervention Study - Results

RESULTS:

Semi-Structured Interviews

- **Individual Counselling Group**

Semi-structured interviews (see appendix 23) were conducted with the teachers from the individual counselling group. The results from these provided a framework for the counselling sessions thus making it possible to focus on some of the concerns of individual teachers during the counselling session.

The interview schedule focused on the following: school meetings; communication; social support; motivation; classroom support and staff factors.
The results of the interviews are outlined below:

Staff Meetings

The responses showed that staff meetings were of an informal nature. Teachers were able to express opinions freely and these were usually listened to and considered by the management. Some teachers did remark however that they still required a degree of confidence to air their views at staff meetings. Two teachers made the comment that staff meetings were conducted in too informal a manner and that sometimes very little was actually achieved. Interestingly enough one teacher actually described staff meetings as formal. Although the majority of staff did view staff meetings as informal there was a consensus among the staff

interviewed that the school management did attempt to formalise the actual outcome of the meetings. This was achieved through the preparation of the agenda and the decision making process during the meetings. One teacher actually described it as 'mock democracy' indicating that the actual decision regarding the agenda for the meeting actually rested ultimately with the school management.

In relation to how helpful staff found meetings the majority of those interviewed indicated that meetings provided a good forum for exchanging ideas - they indicated that this was possible because of the informal atmosphere of the meetings. The staff therefore viewed staff meetings as a form of school support which provided an opportunity for staff interaction.

One teacher however described the meetings as not worthwhile indicating that decisions had already been made before the meetings.

Communication

The school communication system consisted principally of a daily bulletin to staff. All teachers commented on how helpful this was in relation to providing information. Some teachers however made the comment that the daily bulletin provided only basic, almost routine information. A problem seemed to exist in disseminating information which originated from outwith the school -for example information about regional courses. It was also felt by some staff that certain groups within the staff

such as nursery nurses and learning support teachers may be inadvertently omitted in the dissemination of information.

Social Support

It appears that no formal structure of social supports existed in this school although some informal staff social instruction was evident. These informal social events appeared to have been welcomed and well supported by staff. Almost all the responses indicated a degree of disappointment that no formal social support structure existed within the school. It was also noted by staff that a social convener would have to be appointed if more formal social support were to be developed.

Innovation

The important area of educational and organisational innovations and how these innovations are introduced was discussed during the interviews. The principal issues related to how the innovations were actually introduced, whether opportunities for discussion existed and if staff had sufficient control to reject these altogether.

In this school virtually all the staff agreed that innovations were carefully introduced usually as an agenda item in staff meetings and subsequently more formally through staff in-service training.

Only five of the seventeen interviewed agreed that opportunity for discussion existed and nine teachers actually commented that it was pointless discussing curricular and organisational innovations because they were going to be implemented whether "they liked it or not".

Classroom Support

The theme of teacher support was further discussed in the interviews from the perspective of actual classroom support.

All teachers interviewed agreed that additional classroom support would be beneficial. They also felt that the criteria for deciding on which teachers should receive additional support should be made more formal. At present this decision was made fairly informally and almost arbitrary by the management team. It seemed to rest on informal arrangements between class teachers and school management. Some teachers were able to enlist parent helpers, but this was informally introduced through the teacher's own efforts. The issue which concerned most teachers interviewed regarding this was that the distribution of additional support was decided on a top-down basis as decisions were entirely the responsibility of the senior management. One teacher indicated that there was no real outlet for complaint as the whole issue was inclined "to become too personal".

One teacher indicated that classroom support was a whole school issue and teachers therefore should be able to offer support to other teachers. This is an

interesting response and one which touches on one of the principal issues in this research - school supports.

Only one teacher indicated that this form of staff support would not be welcome. This teacher indicated that she preferred to be on her own and not involve other people.

Staff Factors

In relation to staff factors it was fairly clear that the school was informal in relation to factors such as staff dress code, punctuality and absence procedure. Virtually all staff described the school climate as informal and friendly.

In relation to training many teachers voiced concern over lack of information about courses. Although the content value of training courses met with a mixed reaction teachers indicated that courses proved beneficial in helping teachers exchange ideas with each other, although teachers indicated that often there was insufficient follow-up after courses.

In relation to work stress factors all the teachers indicated that curriculum innovation was the main concern although other factors were also mentioned such as dealing with pupils with special needs, role overload and time pressures.

Semi-Structured Interviews - Whole School Group

Results

The same interview schedule as that given to the individual counselling group was also administered to the whole school group.

The responses were very similar to the other group in that staff meetings and the school climate were described as informal. The communication within the school was also described as informal.

In relation to social supports there was no formal structure within the school but a number of informal, voluntary events were held throughout the school term.

Innovations were introduced in a similar way to that in the 'individual counselling' school although lack of ownership and control was mentioned by a number of teachers in relation to curriculum and innovation.

The school climate was also similar to the other school in the study according to the interview responses although some teachers remarked on the increasing distance of the school management from the other teachers due to additional administrative responsibilities of the management team. It seems that the increased organisational and administrative responsibilities made the school management team more inaccessible.

Some of the responses which were obtained from the interviews involving the whole school group included:-

- the view that there was an increase in job fragmentation
- lack of ownership, particularly relating to innovations
- lack of control and autonomy
- increased need to be listened to
- awareness of personality differences within staff
- management distance due to role overload
- the disruptive influence which resulted from continuously innovating
- need to identify a member of staff to deal with staff counselling.
- need to feel able to voice dissent within a non-threatening environment
- need to be aware of time management
- need to be aware of the importance of personal organisation
- the implications from increased curriculum innovation
- need for school management to be seen to be accessible

RESULTS

Questionnaire Study

- **Base Line Data**

There was a total of 48 teachers included in the study. This represented 100% of the teachers from the three schools in the study.

School 1 received the whole school programme and had 12 teachers; school 2 which received the individual counselling programme had 17 teachers and school 3 which received the literacy programme had 19 teachers.

The statistical analysis was carried out using the Statview programme for the Macintosh. All the data was examined for skewness to ensure that there was no excessive skewness.

The results of this are shown in table 39.

Table 39 Correlation Matrix for PSYSOM variable, combined PC1 and PERNOS Scales and Organisational Climate Variables - Pre-Intervention

	PCI + PER	SOC SUP	GEM OS	ERST	ORG Change	WRST 1	WRST 2	PSY-SOM	MAN CON	SOC	J.C.
PCI + PER											
SOC SUP	-.27*										
GEM-OS	-.59**	.47**									
ERST	.35*	-.41**	-42**								
ORG Chan.	-.01	-.16	-.18	.25							
WRS-T 1	.10	.24	-03	.13	-.07						
WRS-T 2	.18	.07	-26	-.05	.15	.22					
PSY-SOM	.13	-.40**	-24	.48**	.17	-.13	.18				
MAN CON	-.04	.44**	.22	-.20	.07	.08	.03	-.10			
SOC	-.6	.11	.09	-.26	-.09	.19	.21	-.27	.20		
J.C.	-.02	.38**	.37**	-.24	.20	-.03	-.04	-.10	.66**	.23	
RT 1	-.06	.10	.40**	.05	-.01	.06	-.29	.07	.24	.02	.39**

N = 48
* p<.05
** p<.01
Key - See Page 296

It was decided to amalgamate the two scales PC1 and PERNOS and examine the strength of the correlations using this combined scale. This was done by transforming both scales to standard scores and combining by scales. Table 39 shows the correlation matrix using the combined scale. It can be noted that significant correlations were evident between this new scale and GEMOS, ERST and SOC SUPP. When the first intervention correlations were examined (see Appendix

29a) some of these correlations were enhanced - WRST 1 (.39 <.01); WRST 2 (.43 <.01); ORG CHANGE (.30 <.05). Comparing the combined PC1 and PERNOS scale with the correlations using the separate scales shows enhanced correlations with ERST (.35 <.01 Combined; .25 <.05 Separate and WRST 2 .43 <.01 Combined; .33 <.05 Separate) (see Appendix 28 and 28(a), 29 and 29(a)).

The results of the pre-intervention study (Appendix 28 and Table 39) showed the expectant significant negative correlations between PCI and GEMOS (-.594 < 0.01) and also significant positive correlations between social supports and motivation (GEMOS) (.473 <0.01) and social supports and management concern for employee involvement (.439 <0.01). Also, consistent with expectations there was a significant negative correlation between social supports and emotional response to stress (-.405 <0.01) and with psychosomatic ailments (PSYSOM) (-.316 <0.01). Also as one would expect there was a significant positive correlation between P.C.1 and Pernos (-.496 <0.01) and a significant negative correlation between Pernos and Gemos (.421 <0.01). There was also a significant positive correlation between motivation and job challenge (.372 <0.01).

In view of these correlations it was felt that it would be useful to examine the relationship between the 'psystress' variables with each one of the organisational climate dimensions using a factor analysis procedure.

FACTOR ANALYSIS

In order to provide some additional information which may be useful for the development and implementation of the intervention programme a factor analysis was conducted. This was completed by selecting each one of the predictor variables in turn - that is those relating to organisational climate and organisational change together with the psystress variables.

Since age and experience displayed a highly significant correlation (.792 <.001) it was decided to construct a 'maturity' scale by combining the age and experience scores and transforming them to a standard score and combining this score to a 'maturity' score. This would mean that there would be seven psystress variables and one predictor variable in each of the factor analysis. The factor analysis was conducted on the data from forty eight teachers (more than five times the number of variables necessary for factor analysis).

The results of the factor analysis are shown in tables 40-45.

FACTOR ANALYSIS

Table 40 **Organisational Change**

FACTOR 1

ITEM	FACTOR LOADING
SOCSUP	-.795
GEMOS	-.666
ERST	.724
PSYSOM	.686
PERNOS	.739

FACTOR 2

ITEM	FACTOR LOADING
P.C.I.	.693
WRST1	.667
WRST2	.698

Table 41 **Climate Dimension - Management Concern for Employee Involvement**

FACTOR 1

ITEM	FACTOR LOADING
SOCSUP	.845
GEMOS	.666
ERST	-.689
PSYSOM	-.624
MAN CONC.	.539
PERNOS	-.668

FACTOR 2

ITEM	FACTOR LOADING
P.C.I.	.749
WRST1	.599
WRST2	.674

Table 42 Climate Dimension - Sociability

FACTOR 1

ITEM	FACTOR LOADING
SOCSUP	.749
GEMOS	.713
ERST	-.746
PERNOS	-.702

FACTOR 2

ITEM	FACTOR LOADING
P.C.I.	.669
WRST1	.6
WRST2	.688
SOC	-.537

Table 43 Climate Dimension - Job Challenge

FACTOR 1

ITEM	FACTOR LOADING
SOCSUP	-.671
ERST	.548
PSYSOM	.806
PERNOS	.859

FACTOR 2

ITEM	FACTOR LOADING
P.C.I.	.77
WRST1	.57
WRST2	.718

FACTOR 3

ITEM	FACTOR LOADING
JOB CHALLENGE	.889
GEMOS	.527

Table 44 **Climate Dimension - Readiness to Innovate**

FACTOR 1

ITEM	FACTOR LOADING
SOCSUP	-.621
ERST	.697
PSYSOM	.895

FACTOR 2

ITEM	FACTOR LOADING
WRST1	.854
WRST2	.518
RT1	.829

FACTOR 3

ITEM	FACTOR LOADING
PCI	.774
GEMOS	-.683
PERNOS	.838

Table 45 **Maturity Factor**

FACTOR 1

ITEM	FACTOR LOADING
PCI	.823
GEMOS	-.774
PERNOS	.761

FACTOR 2

ITEM	FACTOR LOADING
WRST1	.748
WRST2	.591
MATURITY	-.745

FACTOR 3

ITEM	FACTOR LOADING
SOC SUP	-.653
ERST	.714
PSYSOM	.871

Clearly a pattern can be discerned on examination of the results of the factor analysis.

In the organisational change factor analysis factor 1 shows the importance of the role of social supports in relation to emotional response to work stress. The factor analysis involving management concern for employee involvement showed this dimension sharing the same factor as social support, motivation, perceived non-satisfaction of needs and emotional responses to stress.

The factor analysis relating to job challenge saw this, not surprisingly, sharing the same factor as motivation (GEMOS).

The 'readiness to innovate' climate rather interestingly shares the same factor as WRST1 and WRST2. This is of some importance in relation to the evaluation of the intervention programme and will therefore be discussed in the next section.

It was also interesting that "maturity" should be inversely related to work stress (WRST1 and WRST 2) particularly as often the teachers with the most experience rank among the senior management.

POST-INTERVENTION DATA

Following the completion of the intervention programme, the individual counselling programme and the literacy programme, post-intervention data was collected from all participants. It was hoped this would help to examine the effect of the programme in relation to the difference and changes in the scores from all the 'psystess" variables and organisational climate dimensions.

The table below shows the means and standard deviation scores for the total sample in comparison to the pre-intervention results.

Table 46 Mean Scores Pre- and Post-Intervention

Variable	Pre-Intervention		Post Intervention	
	Mean	Std. Dev.	Mean	Std. Dev.
PCI	-17.396	12.959	-23.146	12.91
SOC SUPP	5.917	6.974	8.271	5.534
GEMOS	14.708	11.812	16.229	11.499
ERST	33.521	16.779	30.583	16.798
PERNOS	35.062	8.067	26.75	6.299
ORG CHANGE	50.625	11.108	52.729	9.905
WORST 1	3.083	12.488	-5.542	11.537
WORST 2	23.333	5.443	21.708	5.391
PSYSOM	36.854	11.727	34.938	10.515
MAN CON	5.938	1.577	6.5	.989
SOC	5.188	1.633	5.583	1.609
JOB CHALLENGE	4.979	1.828	5.583	1.555
RTI	5.771	1.403	6.646	1.211

It can be noted that changes had occurred in the scores on the psystress and organisational climate variables between the pre-intervention and post intervention

period. A one sample 't' test procedure was used on all variables for the total sample to examine the significance of these changes.

Table 47 One Sample 't' Test (Total Sample)

Variable	Exp (whole school)		Exp (Ind. Couns.)		Control (Literacy Group)		t	P (2-tail)
	M	S.D.	M.	S.D.	M.	S.D.		
PCI	-8.083	22.976	-9.211	16.518	-.235	19.354	-2.422	0.0193
SOC SUP	.417	9.07	2.053	8.1	4.059	7.677	-2.354	0.2557
GEMOS	3.038	19.005	1	13.848	1	11.197	.254	0.8004
ERST	-7.667	22.568	-5.526	16.229	-1.235	15.683	-2.178	0.0344
PERNOS	-9.917	3.777	-3.053	6.485	-13.059	7.276	-8.512	0.614
ORG Change	.167	21.607	-2.158	5.669	8.235	15.659	.508	0.0003
WRST 1	-7.083	23.423	-10.474	15.932	-7.647	13.148	-3.938	0.0239
WRST 2	-2.583	8.754	-2	8.055	-.529	7.099	-2.335	0.2185
PSYSOM	-4.333	20.061	-2.684	15.72	.647	14.3	-1.247	0.0854
MAN CON	.167	1.697	.579	1.502	.824	2.007	-1.757	0.0354
SOC	-.083	2.539	.632	1.95	.471	1.419	-2.166	0.2436
Job Challenge	.333	2.57	.474	2.389	.941	2.164	-1.181	0.6423
RTI	1.333	1.723	.526	1.577	.941	2.221	-0.468	

Some significant differences were noted in the changes in some variables among the total sample of teachers from the three schools. For example PC1 (< .01); PERNOS (<.001); ERST (< .03); WRST 1 (< .0003); WRST 2 (< .02); Man.conc. (< .08); SOC (< .03), all showed significant changes between pre-and post intervention. It is interesting to note that all the changes were in the desired direction indicating less work stress in terms of stress generation and stress responses after the programmes compared to before the programmes. It is also interesting that the organisational climate dimensions' management concern for employer 'involvement' and 'sociability' showed a significant improvement after completion of the programmes. In order to determine which of the three groups were influencing these changes a one sample 't' test was carried out on the 'change - difference' from each of the three schools. The results of these are displayed in Table 48.

Table 48 School 1 (Whole School Programme)

One Sample 't' test - 'change-difference' (D.F.11)

VARIABLE	MEAN	S.D.	t	PROB
PC1	-8.08	22.98	-1.37	0.20
SOC.SUP	.42	9.1	-.22	0.83
GEMOS	3.08	19.01	0.38	0.71
ERST	-7.67	22.57	-1.37	0.21
ORG.Change	.17	21.60	-0.13	0.90
WRST 1	-7.08	23.42	-1.12	0.26
WRST 2	-2.58	8.75	-1.42	0.18
PSYSOM	-4.33	20.06	-0.92	0.38
MAN CON	.17	1.70	0.67	0.52
SOC	-.08	2.54	-1.48	0.17
JOB CHAL	.33	2.57	-.90	0.39
RT1	1.33	1.72	-1.70	0.12
PERNOS	36.67	35.625	3.47	0.01

It can be noted that one significant change occurred in the whole school group (PERNOS). It is important to note however that almost all the other changes which did occur are in the direction indicating some improvement. This applies to the variables - PCI; ERST; PSYSOM; WRST 1; WRST 2; GEMOS and RTI. The exceptions being the three organisational climate dimensions job challenge; sociability and management concern, the organisational change factor and social supports. None of these changes were significant.

The results of the 'change-difference' in the individual counselling group are shown below.

Table 49 School 2 (Individual Counselling Programme) One Sample 't' test - 'change-difference' (D.F.16)

VARIABLE	MEAN	S.D.	t	PROB
PC1	-.24	19.35	-.26	0.80
SOC.SUP	41.82	30.45	5.53	0.01
GEMOS	4.06	7.67	1.64	0.12
ERST	1	11.20	0	0
ORG.Change	-1.24	15.68	-.59	0.56
WRST 1	8.23	15.66	1.91	0.07
WRST 2	-7.65	13.15	-2.71	0.01
PSYSOM	-.53	7.10	-0.89	0.39
MAN CON	.65	14.3	-.102	0.92
SOC	.82	2.01	-0.36	0.72
JOB CHAL	.47	1.41	-1.54	0.14
RT1	.94	2.16	-0.11	0.91
PERNOS	.94	2.22	-0.11	0.91

The results from the individual counselling group also showed changes in the direction indicating an improvement after the programme. In the variable WORST1 this change was significant indicating a decrease in work related stress after the programme (<0.01) and similarly with perceived non satisfaction of needs (<0.01). In the organisational change factor the change was also significant after the programme (<0.07) but this indicated an increase in awareness or work-stress related to organisational change. The other results although in the desired direction were not statistically significant.

School 3 was used to implement a literacy programme under similar conditions as the whole school programme was implemented. The results of this intervention are shown in the table below:

Table 50 School 3 (Literacy Programme)
One Sample 't' test - 'change-difference' (D.F.18)

VARIABLE	MEAN	S.D.	t	PROB
PC1	-9.21	16.52	-2.70	0.01
SOC.SUP	36.42	22.77	6.78	0.01
GEMOS	2.05	8.1	-0.57	0.58
ERST	1	13.85	0	0
ORG.Change	-5.53	16.23	1.75	0.09
WRST 1	2.16	5.67	-2.43	0.03
WRST 2	-10.47	15.93	-3.14	0.01
PSYSOM	-2	8.06	-1.62	0.12
MAN CON	.2.68	15.72	-1.02	0.32
SOC	.58	1.50	-1.22	0.24
JOB CHAL	.63	1.95	-0.82	0.42
RT1	.474	2.39	-0.96	0.35
PERNOS	.53	1.58	-1.31	0.21

Although the literacy programme was not directly related to stress management, it did deal with an area of the curriculum which has been shown to be stressful for teachers (Jordan 1995, Reid 1996). The changes which this group made, many of which are significant, should perhaps be viewed in this context. Three of the psystress variables showed significant changes indicating a reduction of work stress after the programme (PCI, <0.01), (PERNOS <0.01) and (WRST 1 <0.001). It is also interesting to note that 'organisational change' showed a significant reduction after the programme (<0.03).

As in the other programmes, that is, the whole school programme and the individual programme all the 'psystress' variables have shown improvements in the desired direction. Interestingly, the changes in the organisational climate dimensions are negative, though not statistically significant. It seems, however, that the changes which did occur during the period of intervention (see Table 47) were mainly the result of the improvements shown by the literacy programme group, though some significant improvements were displayed by the individual counselling group, particularly in relation to WRST 1, PERNOS and PC1. A pre- and post test comparison of the significance of difference of mean scores on the combined PC1 and PERNOS scale does not reveal any significant improvement for any one group over the other (t = -.307 NS). Nevertheless it is encouraging that in all groups the changes which did occur were in the desired direction.

It is also interesting that significant correlations were noted between the PSYSTRESS variables and some enhancement of these correlations were evident when the combined PC1 and PERNOS scale was used. The results clearly have implications for the development of a model for stress management in schools (see Chapter 12) and for further development and follow-up activities to the programmes conducted. These will be discussed in some detail in the next chapter.

Chapter 14

Intervention Study - Discussion

INTERVENTION STUDY - Discussion

Introduction

The questionnaires administered provided a considerable amount of information in relation to the 'psystress' model and the role of organisational climate. The interviews and the interactions during the implementation of the programmes provided an extended opportunity for elaborated responses. There was no indication throughout the interviews or throughout the programme that the teachers were apprehensive in any way about responding and appeared extremely open with their comments on the school, the organisation and indeed themselves. This is in fact consistent with the view expressed by Proctor (1993) who found that teachers were now more likely to openly discuss work stress with others than previously, very likely because there is less stigma attached to work stress.

The chapter will therefore discuss the quantitative data from the questionnaires and the qualitative data obtained from the interviews and during the implementation of the programme.

Interviews

School Organisation

The interviews conducted in the two schools which received the stress management programme appeared to show that the teachers viewed the school organisation as fairly informal, even though some formal frameworks existed. This informality may have arisen from the accessibility of the school management and the informality of staff meetings which are important in relation to the conduct of the school. It seems also that teachers may have been able to indirectly influence management decisions through the opportunities provided for debate at staff meetings. The agenda however which plays on extremely important function in staff meetings and ultimately the running of the school seemed however to be more the responsibility of the management.

Despite this however, in both schools there appeared to be a desire by management to involve staff as much as possible in most aspects concerning the governing of the school. This does seem to be acknowledged by staff and indeed welcomed.

Perhaps an interesting aspect in relation to this and particularly management accessibility was that the teachers appeared to have become accustomed to management being accessible - this has been welcomed, but the flip side of this was that with an increasing amount of responsibilities, through, for example, organisational and curricular changes, management have become less accessible.

This was commented on by some teachers. The management team in both schools used in the stress management programme were aware of being less accessible to staff and directly attributed this to the changes in organisation and the curriculum.

An argument may therefore be put forward for suggesting that the success of an informal organisational system rests to a great extent on the ease of accessibility of senior management and that such accessibility is essential in helping teachers deal with work related potential stressors. There was some evidence therefore in this research that this accessibility is in danger of being eroded. In view of this it is perhaps appropriate to consider the views expressed by Trendall (1989) which suggest that informal supports in themselves are not sufficient and that these should be supplemented by a formal support structure.

Locus of Control

Another important aspect to emerge from the interviews concerns the area of locus of control (Capel 1989). Some teachers felt they did have sufficient control over the manner in which innovations were introduced and had opportunities to discuss and vote on these at staff meetings. This is contradicted however by the views of some of the teachers interviewed who felt these discussions were in reality "mock democracy" and consequently ineffectual in relation to controlling the introduction of change in the school. This perhaps related to the teachers' 'locus of control' and whether they view democracy in decision making as important.

Communication

The dissemination of information was viewed as an important aspect and there was concern voiced by a number of teachers in both schools that some important information, for example regarding courses, may not in fact be adequately disseminated. It also appeared that some sub-groups within the school such as learning support and nursery nurses may be inadvertently missed in the dissemination of some information.

Social Supports

There appeared to be strong support for establishing a system of formal social supports. The informal social supports which did exist were appreciated but a formal system would provide a clearer framework of support for teachers. The previous study on organisational climate (see chapter 10) highlighted the importance of social supports, particularly in relation to motivation, perceived coping incapacity, psychosomatic ailments and organisational climate. It is therefore of some importance that social supports be given a high profile within schools and be developed in a formal manner. This also supports the views of (Lukkner, 1990) who found that reducing isolation proved to be a significant strategy in dealing with teacher stress. It would be expected that a formal framework of social supports would help to reduce this isolation. This whole area of social supports provided a

focus for the whole school intervention programme which viewed social supports as a buffer against work stress (Lucas, Wilson and Hart, 1986).

Communication within the school can be seen as a school support (Wilkinson, 1986). In the two schools studied the daily diary seemed to be the form of communication. This formal type of communication would clearly help to inform teachers of what as going on in the school. The teachers in the stress management programme indicated that they felt supported when they were kept informed about what was going on in the school.

Regarding the introduction of curriculum innovations it appears that considerable efforts were made by school management to introduce innovations in a manner in which all staff would be involved, particularly in the discussions regarding implementation of new ideas. At the same time however, there was an underlying feeling amongst staff that they had no executive power and that any points raised in discussions would have little real impact on the eventual form and implementation of the innovation.

Classroom Support

The issue of classroom support is an increasingly important aspect. There is evidence of high levels of integration of pupils with special needs in mainstream schools (Jordan, 1995) and in many cases such children require extra classroom assistance. It appears from the interviews that the deployment of additional staff in

the form of classroom support rests exclusively with the management team. Although it is not unusual for deployment of additional staff to rest with the school management what is of some concern is the lack of outlet for grievance concerning this deployment. One teacher actually described it as a 'top down model' with no opportunity to complain because one may be perceived as either a trouble-maker or incompetent. It is also interesting that in the organisational change questionnaire those questions relating to the need to cater for a wide ability range did reveal that teachers showed some concern that this could be a stressful aspect of the job, particularly without additional support. One teacher in fact indicated that extra classroom support should not be left to the management team to decide but should be a whole school decision. In reality this depends on the management's desire to share these responsibilities with staff. It may also be worth considering the views to emerge from a recent study (Hart, Learing and Conn, 1995) which suggests that additional resources may be more appropriately utilised in providing a supportive organisational environment rather than additional classroom support. Certainly the view to emerge from the teachers interviewed in this current study is that adopting a whole school perspective in dealing with aspects such as school organisation would be welcomed. It may however be argued that by allowing all staff to be involved in discussions relating to for example, classroom support the management team are opening up to potential criticism and this criticism may be strengthened by the fact that it may come not from one individual but a group from within the teaching staff. An 'open' consortium of disaffected teachers may be more difficult for the management team to deal with compared to responding to individual teachers requests in private.

A whole school approach therefore can have enormous benefits to all staff but in order for this practice to be effective it must be a consistent and clear feature of the organisation and decision making process of the school.

Whole School Group

There were few differences in the interview responses from the two schools which experienced the stress management programme. In the whole school group however the issue of lack of ownership in relation to curricular innovation was particularly highlighted. This may raise a concern since the literature suggests that the perception of ownership is an important factor in motivation and commitment to succeed. This group of teachers also reinforced quite strongly the importance of supportive management involvement with the whole school staff. The view to emerge from this interview was that management, due to their increased responsibilities were finding it more difficult to 'keep in touch' with the feelings of staff.

It was also interesting that the whole school group also mentioned the increase of job fragmentation as a factor of concern in their present work load. There is clear evidence (Sarros, 1988) that this can contribute to work stress. According to the staff interviewed job fragmentation appears to be a current trend in teaching.

It is also interesting that the pace of curriculum innovation was also seen as a potential source of stress from the teachers in the whole school programme. This factor was considered in the construction of the questionnaire on 'perceived organisational change' and is clearly one which education authorities need to consider.

It can be argued that this continuous innovation, job fragmentation and the effect of management overload prompted some staff to indicate that a staff counsellor would be advantageous. It is expected that this would provide a formal link for staff without going through the school management team. It is very likely that members of the school management team would not be the most suitable counsellors. Some staff indicated the need to be able to voice dissent within a non-threatening environment. A staff counsellor may in fact provide a suitable outlet for this (see Appendix 16 for the regional initiative to this).

In general the interviews highlighted the implications of increased curriculum and organisational innovations in relation to potential work stress factors. They also illustrated the importance of aspects such as personal organisation and time management and above all the need for school management to be accessible, perhaps even the nomination of a member of staff to perform the role of staff counsellor.

Intervention Programme -

Questionnaire Study

The results of the questionnaire studies appear to support the use of the model of 'psystress' for use within the teaching profession. The data consistently supports the inverse relationship between perceived coping incapacity (PCI) and motivation (GEMOS). This means that when teachers experience high work stress levels, motivation is low. This is what one would expect to find in examining these two factors. This factor in itself clearly provides headteachers and school management teams with a strong argument for implementing school stress management programmes.

Although correlations do not imply a causal relationship the views of the teachers in the interview study indicated that the effect of, for example, continuous innovation was disruptive and affected motivation. This is supported by Tollan's study (1990) which identified the factor "teacher overwhelm" in a study of teacher work stress.

Hinton's model of 'psystress' also recognized the relationship between social supports and motivation. This relationship is also identified in this research. This was certainly found in the interviews and in the feedback during the implementation of the intervention programme when staff indicated the importance of school-orientated social supports for teachers.

Other correlations such as those between ERST (emotional response to stress) and PSYSOM (psychosomatic ailments), between GEMOS (motivation) and J.C. (job challenge) and PC1 and PERNOS (Perceived Non-Satisfaction of Needs) are as expected, and are consistent with both the 'psystress' model and previous studies in this research.

Factor Analysis

The factor analysis between the 'psystress' dimensions and the organisational climate dimensions highlighted some important points for consideration.

The importance, for example, of social supports and sociability appears to be an important aspect highlighted throughout this study and this is confirmed with reference to factor one of the factor analysis (see previous chapter). Zabel and Zabel (1982) recognised the importance of social supports particularly in relation to demotivation and burnout. The factor identified in the previous study (see chapter 10) "innovatory climate" relates to social supports from the point of view that establishing social supports in school can help to strengthen the innovatory climate. Social supports within the 'psystress' dimension correlates positively and significantly with the climate dimensions, 'open mindedness' and scientific and technical orientation (<. 02) both of which are included in the "innovatory climate" factor. These also correlate, though less significantly, (<. 05) with the other two climate dimensions, 'altruism' and 'readiness to innovate'.

It is worthy of note that the climate dimension 'management concern for employee involvement' shares the same factor with five of the variables from the 'psystress' model - social support (SOC SUP), emotional responses (ERST), psychosomatic factors (PSYSOM), motivation (GEMOS) and perceived non-satisfaction of needs (PERNOS). This is entirely expected and consistent with the hypothesis for this study. It seems therefore that management concern for employee involvement appears to be an influential variable, particularly in relation to social supports and motivation and therefore would be an important element in a whole school intervention programme. It should be noted that in this study the Head Teacher and other members of the management team were involved throughout the programme and clearly saw the need to involve all teachers in the school in the programme. It was for this reason that the programme was included in the schools forward plans for staff development which meant that all teachers in the school would need to participate.

The other side of this aspect is that if the management team were to be less accessible, due to workload, they may be seen to be less concerned for staff and staff involvement in school issues.

The organisational climate dimension, sociability also shares the same factor as some 'psystress' variables. It is worthy of note that this dimension, sociability is inversely related to PCI and the work stress dimensions WRST1 and WRST2. This is consistent with the findings of Glowsinski and Cooper (1985) who considered that teamwork was an important factor in developing social support and Boyle et al

(1995) who also suggested that poor colleague relations need to be addressed if work stress is to be effectively dealt with. Further support for this view can be found in the study by Lukkner (1990) who found that reducing staff isolation was the most significant strategy for dealing with teacher work stress.

It is also interesting that the climate dimension job challenge shows a relationship with motivation (GEMOS). This is entirely consistent with the literature and with the 'psystress' theory which indicates that some form of job challenge is necessary to maintain motivation (GEMOS). Difficulties for teachers may arise however when that challenge becomes overburdening and is converted into a situation which can be described as role overload - a factor which can contribute to work stress (Trendall, 1989).

In a similar way to job challenge, readiness to innovate also shows a relationship with motivation. It appears that 'readiness to innovate' is an important concept in change and particularly in the prevention of work stress factors emerging from that change. Clearly, if a school staff did not feel they had a readiness to innovate then job motivation would be reduced. This point therefore provided an important aspect for the intervention programme - that was to examine how ready the staff felt for the proposed changes.

One of the views expressed in the interviews conducted indicated that the current practice in schools involved almost incessant innovations which provided little time for consolidation. This meant that many different types of innovations were going on

at the same time. This is consistent with the results from Badger's study (1994). This practice can also contribute to the 'fragmentation effect' (Kyriacou, 1990) which was described earlier in this chapter. This does not provide an environment conducive to innovation.

It seems therefore that 'readiness to innovate' is an important factor in relation to motivation and motivation is a mediating factor in the 'psystress' model (0.573 <0.01 with PCI). This would imply that management and administrators need to ensure that an innovatory climate exists before innovations are thrust upon teachers. This innovatory climate - which is represented by the 'readiness to innovate' climate dimension can play an important role in the eventual success or otherwise of an innovation.

The literature appears to be fairly inconsistent as far as teaching experience is concerned and its relationship with work stress (Johnston, 1989). It was therefore decided to amalgamate the age and experience columns (see results chapter) in order to obtain a 'maturity' factor. It was noted that this factor was negatively related to work stress (WRST <.01). This would imply that teachers with the least experience rate higher in work related stress measures. The literature is unclear in this aspect with contradictory studies evident (Nias 1985, Lachlan 1984, Johnston 1989, Salo, 1995). Salo's study showed that age and experience did not bear any influence on work related stress experienced by teachers. It is interesting therefore that in this research there is a significant negative correlation with work stress and maturity. Further examination of the results should that this was consistent in all

three schools and was not due to the influence of any one particular school. This may be due to new teachers being ill-prepared to enter a profession heavily involved in innovation.

When considering the effects of the whole school intervention programme a number of factors need to be considered. These include the length of the intervention, the nature of the programme and the possible longer term effects of the programme. There is no doubt that intervention programmes of this type need to be approached and implemented in a sensitive manner. It is first necessary to provide the school management with the opportunity of considering the implications of the programme for themselves and its possible effect on the school. In this case the management team accepted the whole school programme would be an appropriate way forward but had still to put this to the staff. The sensitive nature of the programme therefore imposed some restrictions because it had to be acceptable to both staff and management. Due to the pressures on staff in terms of staff development some limits had also to be placed on the time which was allowed for the programme. Schools are provided with a set amount of in-service time and some care was taken to ensure that the time taken with the intervention programme was balanced with other relevant curricular activities. It is worth pointing out however that the stress management programme occupied the total in-service allocation for the school term August - December. This means therefore that while the stress management programme was being implemented staff were not experiencing other forms of in-service activities so it might be argued that during the period of the implementation staff in-service was not balanced but if taken from an academic year standpoint - that

is from August to the following June, there was a balance. Staff however completed the questionnaire a short time after the end of the programme. This is worth noting in view of the results which can be seen for the school staff who received the literacy programme. (This will be discussed later in this chapter.) It was also necessary because of the planning requirements of the other activities in the in-service calendar to ensure the stress management programme was contained within one school term. On reflection it may have been more effective if it were possible to implement it throughout the whole of the academic year. This would have enabled staff to try out the ideas obtained from the intervention programme, for a longer period and evaluate more effectively aspects such as social supports. This was the model successfully implemented by Dunham (1992). Although this was not possible in this study, due to the reasons outlined above, this should not necessarily detract from the value and results of this study.

The effectiveness of the programme therefore may not be totally apparent over the one term of its implementation and this factor therefore needs to be considered when examining the 'before' and 'after' differences. Additionally the small size of the sample may account for the lack of significance in some of the results. In view of this therefore it is important to note the direction of the changes and particular trends in the changes.

It is interesting to note, for example, that significant changes took place in the individual counselling group in work stress (WRST1 <.01), PERNOS <.01 and organisational change (<0.7). In the individual counselling sessions teachers were

given the opportunity to voice concerns and discuss aspects of their workload which caused them some anxiety. It can be suggested that this type of activity is similar to the "supports" described by Tollan (1990) which were seen to be an effective form of stress management. The work related stress questions (WRST 1) asked general questions in relation to work stress such as how work problems are tackled, organisation, communication, work reactions in relation to speed, care, consistency and reliability.

It can also be suggested that although this group did not receive the whole school programme the management showed a commitment to support staff through accepting and making provision for the individual counselling programme. Additionally because the meetings with staff were on a one to one basis the teachers did not feel intimidated by the presence of others, particularly management. In the whole school programme the management participated throughout and this may have had some influence on the outcome of the intervention. It might be suggested therefore that it may be more beneficial to include some individual counselling provision within the framework of a whole school programme.

The control group for this study received a programme relating to literacy difficulties (see appendix 35). It was originally envisaged that this intervention would provide control group data, since the teachers in this group were not receiving any direct stress management input. In actual fact, the results can illustrate that this type of intervention may indirectly help to reduce levels of work related stress. The actual input, on literacy difficulties, was related to an area of the curriculum which appears

to cause teachers a degree of anxiety (Jordan 1995). It can be suggested therefore that this may account for the significant decrease in P.C.I., PERNOS and WRST 1 (< .01) on completion of the literacy programme.

Clearly it is not possible, given the possibility of other intervening variables, to categorically suggest that this is the reason for the Work Stress reduction. Nevertheless P.C.I., PERNOS and WRST 1 were significantly less after the programme and this point cannot be overlooked and clearly provides an area for further examination.

With the above in mind the head teacher of the control group school was approached to discuss and suggest any possible intervening factors which may account for the changes. This was done in the form of a semi-structured interview. Two points came out of this process. The first was that the literacy programme was extremely well evaluated by staff so they clearly felt it was a good use of their time and the schools in-service allocation. Secondly it was interesting to note that all the staff had gone on a team building week-end several months before the literacy programme was administered. It is possible to suggest that there is a longer term pay-off to such activities as team building week-ends and this may also have affected the results of the programme. At the same time there was no actual evaluation of the team building week-end and it may be argued that this type of activity can generate anxieties and tensions as much as it can alleviate them. The literacy intervention programme is more likely to have more of an effect because it was happening at the time, so it related to the teachers immediate situation and it

was acknowledged by the staff that literacy difficulties and particularly dyslexia, did cause them considerable anxieties. It seems therefore that dealing with a potential stressful aspect of a teachers work such as literacy difficulties may be sufficient for some teachers in helping to deal with work related stress. Although it is unlikely that the literacy programme was able to deal with work relationships and inter-personal supports it may have helped with aspects of the teachers role and workload.

The other change which was evident, in the literacy programme group was in the organisational change factor. The reported stress from organisational change seemed to be significantly less after the intervention compared to before. This may of course be accounted for by other factors during this period but the argument can be presented that this change occurred because the actual organisation of the school was not focused on while in the other two schools it was. Dealing with organisational aspects heightens ones awareness of potential stressors within the organisation and may initially result in increased stress due to ones enhanced awareness of these potential stressors within the organisation. This point was actually made by some teachers in the whole school programme during one of the workshop activities. The fact that organisational aspects - potential stressors - were not focused on in the literacy programme may have influenced the 'before' and 'after' differences in the literacy group compared to the other groups.

Although it was the objective of the whole school programme to deal with organisational stress it is suggested here that initially this focus may result in an increase in stress due to an enhanced awareness but one would hope the

programme would lay a foundation for dealing with work stress in the long term. As mentioned earlier, in this chapter only one significant difference was evident in the two-tailed 't' test on the before and after scores of the whole school group (PERNOS). The closest other variable to significance was management concern for employee involvement. Indeed when a one tailed 't' test was applied the difference seen in this variable reached significance (< 0.05). It can be suggested that since the management team were involved in the whole school programme they were perceived by staff as involving teachers in the functioning of the school. This could also account for the difference in the perceived non-satisfaction of needs scores after the intervention. It may also be noted that P.C.I. was less after the programme than before (< 0.09 [one-tailed]) though this change does not show a high level of significance.

School Ethos

In view of the results obtained from the three schools it was thought that some additional indicator such as school ethos, may be helpful in drawing further comparisons between the three schools. The instrument used to assess school ethos was the same as that used by Proctor (1993) for similar reasons. In Proctor's study the school ethos indicator proved useful in confirming the pattern which had been revealed by the results of teacher stress questionnaires in four different schools.

The school ethos indicator was therefore administered to all teachers in the three schools in this study. The results showed that the three schools were almost identical in the school ethos variables as table 51 shows.

Table 51 School Ethos Indicator (Mean Scores)

VARIABLE	SCHOOL 1 (W)	SCHOOL 2 (I)	SCHOOL 3 (C)
Warm	4	3.941	4
Cheerful	3.833	4.059	4
Friendly	3.833	4.059	4.263
Co-operative	3.833	3.765	4
Relaxed	3.333	3.588	3.526

No significant differences were seen between the three schools so this can rule out school ethos differences as an influential factor in this study accounting for any differences 'before' and 'after' the programmes.

Summary

In drawing together the different facets of the intervention study a number of points stand out. These include:

- the lack of statistically significant measurable success of the whole school programme
- the fact that the above should be qualified by the suggestion that this type of intervention can have longer term benefits which may not be obvious in the short term

- the changes which did take place in the whole school intervention were in the desired direction and this in conjunction with the robustness of the stress model used is a point worthy of note
- the qualitative data from interviews and observations during the implementation of the programme provides useful information on the potential effect of the various interventions used in this study
- some areas such as social supports and readiness to innovate seem to be important in preparing and helping teachers cope with curricular and organisational changes
- stress management programmes need to consider **a blend of all three** aspects utilised in this study - whole school, individual counselling and curricular aspects.

It is perhaps this last point which the intervention study highlights. Teachers need to see the direct relevance of stress management and one way to achieve this is to include some aspect of curricular difficulty or innovation in the programme. At the same time teachers need to feel the programme is meaningful to them as individuals. For this reason an individual element is essential to make the programme relevant to all teachers. Yet the starting point of this research study and the preparatory development work focused on the preparation of a whole school programme. This intervention study does not undermine the importance of this. The relationship between the psystress and the organisational climate variables illustrates this importance. The observations made during the implementation of the

programme e.g. during the workshop activities convinces the writer that interactive dialogue examining organisational issues is a vital component of stress management programmes - a point highlighted in previous Scottish studies (Tollan 1990, Proctor 1993). The intervention study also highlights the need for longitudinal data both qualitative and quantitative.

Paradoxical Control Group Finding

Perhaps one of the most surprising results to emerge from the intervention study was the paradoxical control group findings. It was expected that the control group would not display any significant changes in stress generation and stress responses. This however did not prove to be the case as the control group actually made more improvement in stress reduction than any of the other two groups. This finding prompts a number of questions. For example it can be argued that the programme the control group received was actually a more successful strategy for reducing stress than that received by the other two groups, despite research evidence which suggests that whole school stress management can be an effective intervention strategy (Dunham 1995). At the same time it can be argued that the stress management programme was not effective because of inadequacies in the construction and the implementation of the actual programme. Additionally it might also be considered that the differences in size and management style of the schools involved in the experiment could have some bearing on the results of the

intervention. Dunham (1995) has in fact shown that management style can be a major influence on the success of a whole school intervention.

There are therefore a number of alternative explanations which may provide some reason for the paradoxical control group findings. These explanations will now be discussed more fully.

The suggestion that the whole school stress management intervention programme is flawed is a likely explanation. Dunham (1995) clearly shows that an effective whole school programme should be generated by the school staff themselves. This should be carried out during the first meeting. The programme used in this study was not generated by the staff but was in fact a pre-packaged one compiled by the writer, although it was based on correlational findings from three studies on teacher stress and organisational climate. If one is convinced therefore by Dunham's assertion that programmes should be generated, then some doubt must be cast on the value and hence the effectiveness of pre-packaged programmes.

There is also some doubt on whether the programme was in fact a whole school programme. The programme certainly involved the whole staff but it can be argued that some essential elements of a whole school programme were in fact omitted. This would include aspects such as the role of management, management style and the processes involved in decision making - particularly how decisions can be made acceptable to all staff. This dynamic dimension which involves interaction with staff was missing from the programme and it can be suggested that without this it is

unlikely that any significant changes could have been made, even within a whole staff programme.

The programme which was developed and implemented was a static programme and it appears certainly from the work of Dunham that a dynamic programme is required in order that staff can try out and evaluate suggestions for dealing with the organisation of the school and the stressful effects of dealing with changes within the organisation. Additionally in view of the earlier criticisms of the instrument used - the Business Organisation Climate Index (BOCI) it might be argued that the index used for climate did not provide the information which was necessary to effectively assess organisational climate and provide and indication of the important climate variables which could have featured in the intervention programme.

In relation to the individual intervention/organisational intervention the results of the study conducted by Milstein et al (1985) should be considered. In this study the group receiving the organisational-orientated programme showed improvement on all of the high-stressor issues and the researchers concluded that individually based interventions aimed at relieving teacher stress will not have lasting organisational effects because they focus exclusively on stress manifestations and tend to ignore the need to modify the stress sources. It is suggested therefore that a major source of stress is the organisations within which teachers work. In view of this therefore it is surprising to find that in this current research the control group actually showed more improvement that both the whole school and the individual intervention groups.

In relation to the paradoxical control group results, a point which can be made is that perhaps the control group programme was actually a more effective programme in relation to stress management than the other programmes used. This could imply therefore that by directly and effectively addressing an aspect of the curriculum which can cause teachers some anxiety, stress levels may be reduced. The programme used in this study was a dyslexia one and there is evidence that dealing with dyslexic difficulties in the classroom situation can result in some teacher stress (Reid 1992, Miles 1995). It can be suggested therefore that identifying areas of the curriculum which may generate some teacher stress and providing in-service training to deal with these areas can be an effective intervention strategy which can help reduce teacher stress.

While the above argument may have some merit it should be acknowledged that a curricular intervention approach does not deal with aspects such as management style, the decision making process and other aspects of school organisation which has been associated with teacher stress (Trendall, 1989, Dunham 1995).

It is likely that there are merits in both views and perhaps it can be suggested that a curricular approach should certainly be considered as a stress management strategy, but supplemented with a specific stress management programme focusing on organisational aspects of the school. It should also be noted however that some doubt must be cast on pre-packaged programmes for stress management intervention and that the specific aspects of the intervention should be generated by the staff themselves.

This study however confirmed many of the points and suggestions raised in other similar studies and indeed confirms the rationale behind this research as appropriate in order to take into account the wide ranging needs of the teaching profession. These needs can be met by offering a flexible stress management intervention package to schools which encompasses individual, whole school and curricular dimensions.

Chapter 15

Development of a Model for Stress Management in Schools

DEVELOPMENT OF A MODEL FOR STRESS MANAGEMENT IN SCHOOLS

One of the aims of this research study is to develop an appropriate and effective model to help teachers understand and deal with work stress. The studies undertaken in this research highlight important aspects which need to be considered in the development of the model. These include factors relating to stress generation and stress responses identified in the model of psystress (Hinton and Burton, 1992) and the organisational and curriculum factors examined in the studies in this research.

Schools, however, are dynamic institutions and no more so than in the current climate of organisational change, curricular and role pressures. A model, therefore, cannot be static nor prescriptive instead it ought to be interactive and flexible. It also needs to have a purpose. The purpose of the model outlined here is to help the process of teacher and management collaboration in order to develop inter-personal supports within a non-threatening environment. The main aspects of this model, therefore, includes the model of 'psystress', organisational factors, particularly organisational change and climate and curricular innovation. The school climate and ethos are also important as these will help to determine the most effective type of intervention to deal with teacher work stress. The model, therefore, needs to consider strategies for effective intervention in relation to individual and whole-school stress management programmes.

The model also considers factors outlined above as well as the implications of recent studies from the literature (Proctor 1993, Badger, 1994). It is essentially a reciprocal model linking teacher work stress with stress management intervention programmes (see figs. 3 and 4).

School organisation has already been linked to teacher work stress and stress management programmes (Tollan, 1990; Dunham, 1992; Proctor, 1993) and this provides additional justification for linking these two aspects in this model.

Hinton and Burton's model of psystress is a thoroughly researched one and appropriate in this context because of its interactive and comprehensive nature. Figure 3 outlines the different aspects of the model and relationships between the variables and the reciprocal nature of the model. The implication is therefore that organisation, personal and curricular factors all need to be considered in an overall school strategy for dealing with work stress. The model does appreciate the scope and need for individual stress management within the school context, but recognises that whole-school and individual stress management programmes may not necessarily be seen as independent of each other and can in fact be complementary strategies in the implementation of an effective stress management programme for teachers.

It must also be recognised that some areas of the curriculum can also generate work stress. Dealing directly with this may therefore help to alleviate teacher stress.

A model for stress management in schools should therefore be all embracing thus encompassing whole school, individual counselling and curricular aspects. This combination should provide an appropriate model for school in-service which can be tailored to the specific needs of the school.

In the model presented in figure 3, which is based on the results of this research, the two central aspects are 'teacher work stress' and 'stress management in school'. The model is reciprocal because each of these factors affect the other. For example the awareness of work stress among teachers can result in the demand for a school in-service stress management programme; and a school in-service programme should address and reduce teachers vulnerability to work stress. The stress management programme can be either, or a combination of whole school, individual and curriculum-orientated. The responses from this research indicate that a combination of all three would be the most appropriate. This emphasises the importance of collecting adequate base-line data at the outset of the stress management programme. This would ensure the most appropriate combination of intervention for that particular school.

It has been maintained already that the model for understanding the relationship between teacher work stress and stress management, is comprehensive and reciprocal. Thus one strand of the model relates to organisational factors which relate and influence each other. Therefore the nature of the school organisation can affect teacher stress and the existence of teacher stress can affect the organisation of the school. Similarly organisational change can affect the school organisation

and the nature of the organisation in the school can affect the success or otherwise of organisational change (see Intervention Study). Changes in the organisation can be related and affected by some dimensions of organisational climate and similarly the climate in the school can influence the organisational change. Those organisational factors will influence teacher work stress which will in turn influence the success or generate the demand for stress management programmes in schools.

The other dimension to teacher work stress which can be seen in the model (Fig 3) relates to curricular innovation. This can influence the generation of teacher work stress and similarly the existence of work stress can affect the success or otherwise of curriculum innovation. The supports and demands existing in the school can also have a bearing on the impact of curriculum innovation and vice versa. Both these factors can be influenced by organisational change and organisational climate. The relationship is reciprocal therefore organisational change and climate can affect the influence and impact of curriculum innovation and school supports and demands. These factors will have a bearing on teacher work stress which will in turn generate the need and demand for stress management in schools.

The model is also flexible in that it accommodates the different orientations of stress management programmes. This research has essentially utilised three different orientations - whole school, individual counselling and curriculum focused. The responses indicate that a combination of these three would be the most appropriate strategy for in-service and the insight given to each can be directed to the needs of

the teachers concerned and the particular situation in the school in relation to factors such as 'readiness to innovate' and 'organisational climate'.

This research therefore which underpins the model described here emphasises the need to view teacher work stress and stress management in a comprehensive, all embracing manner to accommodate to organisational, curricular and individual factors, their reciprocal relationships and their impact on stress management programmes in schools.

Role of Supports

This research clearly highlights the need for supports for teachers. Appropriate and effective supports can have an influence on the potential stressors in school. Supports can be built into the system at various levels - for example within the school organisation relating to areas such as climate, policy and the 'role of the management' and in relation to the role of the teacher in providing role clarity, management support, effective communication and positive inter-personal relations with colleagues.

Fig 4 below highlights these factors and illustrates also how the student can also become part of and benefit from an awareness of the role of supports within the school organisation.

Teacher Work Stress and School Stress Management - A Reciprocal Model for Intervention

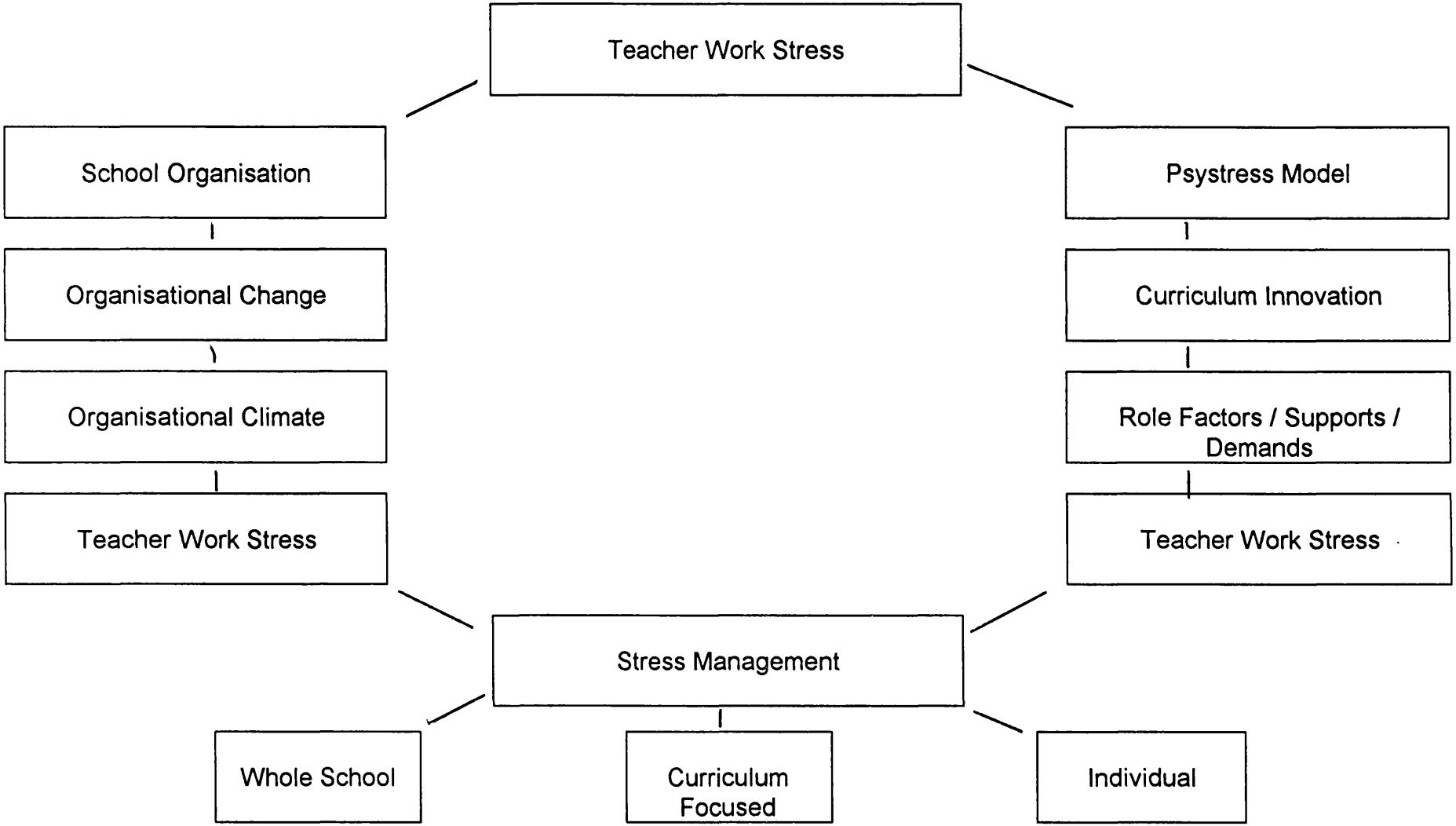
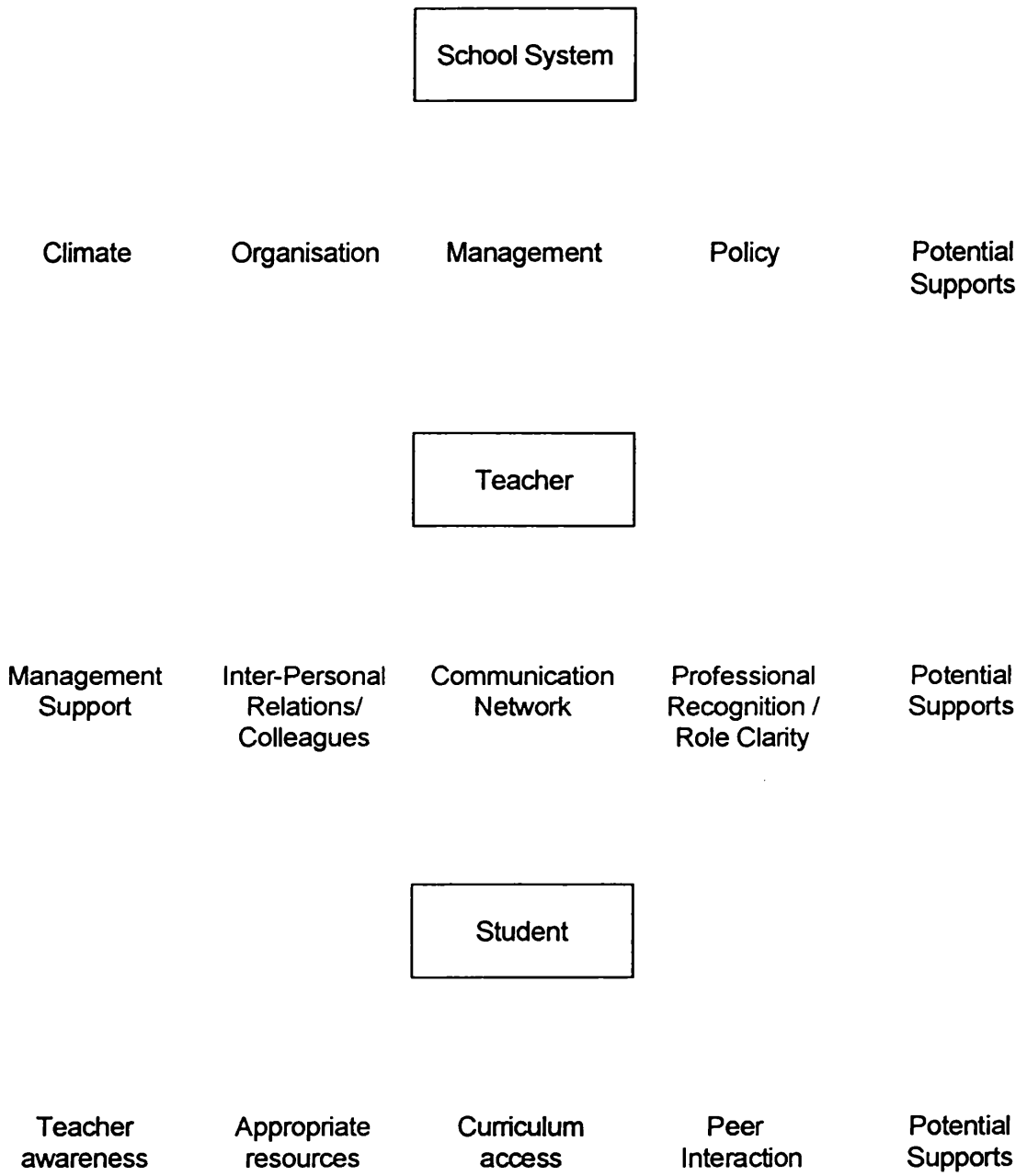


Fig. 4 Model of Potential Supports



Chapter 16

Summary of Studies

SUMMARY OF STUDIES

This chapter will present a summary of the four studies undertaken for this research. These will be shown in a table form which will indicate when and where the studies took place; the instruments used; the purpose, results and implications of the studies and the specific focus which each study provided.

It is hoped therefore that this will provide a clear overview of this research since the next chapter will draw together some conclusions and recommendations which have resulted from this research.

FIGURE 5

School Organisation, Teacher's Work Stress and the Effect of an Intervention Programme

SUMMARY OF STUDIES (1990 - 1996)

DATE	STUDY	PURPOSE	RESULTS	IMPLICATIONS
1. January - June 1990	· Inter-relationships between stress factors in teaching · Sample - Secondary School (Dunfermline High School) 70 teachers (90% response rate) · Instruments · CAST · T.P. · GEMOS · ERST · PERNOS · SUPPORTS/HASSLES · PSYSOM · PERCEIVED ORG. CHANGE	· To examine relationships between stress generators and stress responses · Applicability of 'Psystress' model to teachers · To examine relationship with organisational stress/change and 'Psystress' factors · To examine relationship with psystress and curricular innovations	· Significant relationships between PCI and stress responses · Significant negative correlation between supports and hassles and between supports and motivation · Significant positive relationship between hassles and stress generating factors · Perceived organisational change correlated sig. and negatively with supports and sig. and positively with hassles · All ten items in the perceived organisational change questionnaire correlated sig. and positively with the total perceived org. change	· Some justification for including perceived org. change in further study · This may be done through examining aspects of school organisation and school supports · Psystress model is appropriate to use in further studies

DATE	STUDY	PURPOSE	RESULTS	IMPLICATIONS
2. June 1991 - June 1992	· The roles of perceived organisational change, personal planning and perceived responsibility and concern · Sample - Secondary School (Queen Anne High School) 40 teachers (70% response rate) · INSTRUMENTS · CAST · PERNOS · PERCEIVED ORG. CHANGE (P.O.G.) · PERCEIVED ORG. AND PLANNING SCALE (POPS) · PERCEIVED RES. AND CONCERN SCALE (PRAC) · EYSENCK PERSONALITY INVENTORY	· To identify relevent aspects for the intervention stress management programme · Replicate some aspects of Study One e.g. the application of the 'psystress' model and the relationships between perceived organisational change and other variables · To examine the applicability of the new scales 'Perceived organisational and planning' and 'Respnsibility and Concern'	· Perceived organisation and planning scale displayed significant positive correlations with C.A.S.T. · Perceived organisational change displayed significant positive correlations with Perceived Org. and Planning (POPS) and Percieved Responsibility and Concern (PRAC) · Significant positive correlations found between the four CAST dimensions - life, home, work, social aspects	· Mismatch between perceived importance of organisation and planning and the extent to which they are carried out appears to be an important aspect - this has implications for time management · The above has implications for the development of the intervention programme · Inter-correlations between CAST dimensions highlights the multi-dimensional aspect of occupational stress. This has implications for the intervention programme in relation to social supports

DATE	STUDY	PURPOSE	RESULTS	IMPLICATIONS
3. Sept. 1992 - Sept. 1993	· The relationship between stress variables and dimensions of the school organisational climate · Sample - Six Primary Schools (Lothian Region) 54 teachers (85% response rate) · INSTRUMENTS · CAST · SOC SUP · PYSOM · GEMOS · PERES · PERNOS · ERST · EPI · WRST 1 · WRST 2 · EMOT. DEF. · SELF. MED. · POG · BOC I (Business and Organisational Climate Index)	· To further examine 'Psystress' model with sample of teachers from a different sector (primary schools) · To examine dimensions of organisational climate in relation to teacher stress and organisational change	· CAST (PCI) correlated significantly with SOC. SUPP., GEMOS, PYSOM, PERNOS, ERST, WRST 1, WRST 2 · PCI, SOC. SUP, GEMOS, PERNOS, ERST, P.O.G. all correlated significantly with some dimensions of organisation climate · Factor analysis with organsiational climate and Psystress identified three factors - "Leadership Insight" "Workplace Ethos" "Innovatory Climate"	· Further support for the application of the Psystress model to the teaching profession · Organisational climate dimensions need to be considered in a stress management programme · Role of management, school ethos need to be considered · Factors assoc. with 'Readiness to Innovate' need to be addressed in stress management programme

DATE	STUDY	PURPOSE	RESULTS	IMPLICATIONS
4. Sept. 1994 - Jan. 1996	· Intervention Study · Sample - three primary school (Lothian Region) 48 teachers 100% response rate · <u>INSTRUMENTS</u> · Intervention Programme · Individual Counselling based on interview schools · Literacy Programme · Semi-Structured interviews · PCI · SOC SUP · GEMOS · ERST · PERES · PERNOS · ERST · PPOG · WRST 1 · WRST 2 · PSYSOM · Man Concern for employee involvement · Sociability · Job Challenge · Readiness to innovate · School ethos scale	· To implement whole school programme on stress management · To evaluate the programme and assess its effectiveness in dealing with teacher work stress · To implement an individual counselling programme · To implement a literacy programme	· The whole school programme group showed changes in relation to the Psystress variables in the direction of improvement but only PERNOS statistically significant · The workshop activities provided a forum for staff communication and discussion · Individual counselling group showed significant improvement in WRST 1 (<.01) and PERNOS (<.0001) · Other results were also in the desired direction · Literacy programme group showed significant improvement in PCI, ERST, PERNOS, WRST 1, POG · No significant differences in school ethos · Interviews indicated need for formal social supports · Factor analysis and interviews highlighted importance of readiness to innovate	· School stress management programmes need to consider organisational aspects, individual counselling needs and areas of the curriculum (such as literacy) · Stress management programmes should ideally extend throughout the full school year · Teachers would likely accept and appreciate a formal school staff support system and school management in-service training · Managmeent have an important role to play in staff supports, readiness to innovate and the organisational health of the school

This research has been motivated by the desire to develop, implement and evaluate a whole-school stress management programme. This has been achieved through an examination of the data, in the four studies included in this research. The 'psystress' model has provided the framework for stress generation and stress response variables in the studies described in this research. This model has been specifically examined in relation to organisational factors in schools particularly relating to change. Although the focus has been on organisational factors and organisational change, curricular dimensions have been considered since curricular innovation has featured prominently in education and in the work load of teachers for a number of years now.

The aim therefore of this research was to develop a professionally relevant programme for stress management in schools, taking account of the relationships between the variables in the 'psystress' model and the organisational and curricular dimensions in school.

Study One which examined the relationships between stress factors in teaching showed that the 'psystress' model can be applied to the teaching profession and provided sufficient justification for including organisational change factors in further study. It was noted that 'supports' and 'hassles' showed a significant relationship with 'perceived' organisational change and this provided some indication that identifying school supports in particular could provide a positive and important area in the development of the stress management programme.

Recent Scottish research (Tollan 1990, Proctor 1993 and Badger 1994) has acknowledged the potential contribution of organisational and curricular factors to teacher work stress. This together with current and recent government legislation which resulted in the establishing of school boards, which have made schools more accountable, introduction of the 5 - 14 curriculum, national testing and devolved management of schools, provided further justification for examining organisational factors and the influence of organisational change more closely. This was addressed in studies Two and Three which looked at the roles of organisation and planning, responsibility and concern and organisational climate.

These studies identified a number of key areas for further consideration which provided some justification for their inclusion in the stress management package. One such aspect was the importance of time management. The discrepancy between the extent teachers perceived organisation and planning as important and the extent to which they were able to carry this out is an important consideration. This can pinpoint either vulnerable aspects of the organisation of the school which has made it difficult for teachers to implement their desired level of organisation and planning or difficulties with time management perhaps due to the continuous wave of innovation to hit the teaching professions. It was felt therefore that time management and the organisational structures of the school should be considered in the programme. The literature and this research highlights the multi-dimensional nature of teacher stress and for this reason it was felt that it may be more effective if stress management was tackled from an organisational viewpoint involving all the staff, thus adopting a whole school perspective.

It was therefore important to develop and utilise the programme using a whole school approach. For this reason therefore Study Three focused on organisational climate and the instrument which was used divided climate into twenty dimensions examining in a comprehensive way most aspects of the organisational functioning of the school. Significant correlations were noted between aspects of the 'psystress' model and dimensions of organisational climate. The factor analysis identified aspects such as 'leadership insight', workplace ethos and innovatory climate as being particularly relevant. The stress management programme which was developed therefore sought to consider these factors particularly through the use of the workshop exercises and the workshop dynamics between teachers and management.

It was felt that school ethos was an important consideration and the part played by the school management in influencing the ethos and the general organisational climate of the school.

It has already been acknowledged that teacher work stress is a multi-dimensional phenomenon and for this reason an organisational perspective was adopted in the stress management programme. The individuals within the organisation however also need to be considered and it was therefore felt that for this reason an individual counselling orientated programme should be conducted in one of the schools in this research. This individual programme was based on factors relating to how the organisation may interact with the individual teacher factors such as communication,

school supports and decision making processes were discussed.

To balance these two stress management programmes an additional programme was implemented with the staff from a similar school but providing solely a curricular focus - an examination of literacy difficulties.

These three programmes were carried out in three similar schools over the same period of time. Each group also completed the same questionnaires to provide base line data and also post intervention data.

The results showed that significant improvements were seen principally in the group which received the literacy programme in the areas of perceived coping incapacity; perceived non-satisfaction of needs, emotional responses to stress and work-related stress. The individual counselling group showed a significant improvement in the areas of work-related stress and perceived non-satisfaction of needs and although the whole school group showed only one statistically significant change, the other changes which were evident were all in the desired direction indicating a reduction in work stress.

A school ethos indicator showed no significant differences in the school ethos of the three schools. A difference in school ethos could have influenced the effectiveness or the programmes.

Implications which can be derived from the intervention programme are that stress

management programmes should ideally incorporate elements of whole school dimensions, the facility for individual counselling and also address or provide the means to address relevant curricular aspects.

The intervention programme was conducted over a relatively short period - one school term. For future research the implementation of a stress management programme should be extended to one whole school year. This would provide more opportunity for teachers to benefit from the content of the programme and additionally it would provide a sounder basis for evaluation of the effects of the programme.

Throughout the interviews, which were conducted in the two schools which received the stress management programmes and formed the basis for the individual counselling sessions, the need for school supports was reiterated. School supports can take various forms dealing with organisational, curricular and personal factors. One notion however which was identified in the interviews was that of formal school supports. It appeared that there would be some justification in schools developing a policy of formal school supports. This may help to provide a school climate which is conducive to innovation. The organisational climate questionnaire, the whole school programme and the interviews all indicated that innovation would likely be more successful if teachers and the school organisation were prepared for such innovation. In fact it was felt that one of the outcomes of the whole school programme in particular, was that through discussions of the school organisation

and the needs of individual teachers, there would be a greater level of 'readiness to innovate' within the school.

It was heartening that all three intervention programmes were well received by participants and this indicated that a desire existed amongst teachers for some training and preparation to deal with the current challenges within the teaching profession.

The model developed as a result of this research highlights the reciprocal nature of dealing with such challenges. It is important that no one area should be neglected - organisation, individual and curricular. The reciprocal relationship between these three illustrate that all three need to be addressed in a stress management programme.

For too long now school in-service training has been characterised by a reaction to the increasingly challenging demands being placed on teachers. Schools by acknowledging the need to provide the 'right' school environment for such innovation would be investing their resources wisely by preparing staff and the school organisation for the potentially stressful personal, curricular and organisational factors which have now become an identifiable component of the teaching profession.

This research therefore has sought to highlight these factors by relating the model of psytress to organisational and school factors. Hypothesis One of this research, that

the model of psystress is an appropriate one to apply to the teaching profession has been supported by the results of the four studies. Hypothesis Two, that organisational factors, particularly organisational change and climate represent key aspects of teacher work stress and stress management in schools is also supported by the results of the studies in this research.

Hypothesis Three however was not conclusively supported - that is that stress management can be effectively addressed through a whole-school programme, focusing on school organisational climate and organisational change. There was certainly evidence that the main issues can be addressed using a whole-school approach but the statistical analysis comparing this method with the other two methods used in this research was not conclusive. Despite this however, observations made during the process, the responses from the interviews, workshops and the statistical data were promising, revealing that with some manipulation of the experiment such as implementing the whole-school programme over a longer period may result in a more effective addressing of the issues using this approach.

The fourth hypothesis, that a model for stress management in schools can be developed in relation to organisational and curricular aspects has been supported by this research and the model developed as a result of this research is described as a reciprocal model. This shows the relationships between the different variables in relation to stress management in schools and the need for a comprehensive and flexible approach to this in schools.

In part this study has confirmed the findings of other recent studies (Proctor 1993, Tollan 1990) in relation to the importance and influence of organisational factors in school in relation to teacher stress and stress management. This study however has also included a factor which represents a unique addition to the stress literature. This factor is the use of three different treatment groups of whole-school, individual counselling and curriculum orientated approaches. The model which has been developed from this study has emerged partly from the study of these three groups which concludes that a combination of all three would be the most effective method of tackling stress management in schools.

It is important however to consider the processes involved in the development of the in-service programme. This research has not only focused on the evaluations of the product but also the actual process of the development of the package. The components of the package, with the focus on organisational factors, appears to be justified. This is supported by the results of the studies and the observations made during the interviews and the implementation of the programme. The process described here in the research of developing the programme through the use of the 'psytress' model, represents a further unique contribution to the literature in this field.

It is important that a soundly developed programme contextualised by an applied model of dealing with teacher stress and stress management is readily available for use by the teacher profession. It is hoped therefore that this research has helped to provide this resource and that the organisational implications of teacher work stress will be recognised by teachers, management and policy makers.

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GLOSSARY

Key to Abbreviations

AE	-	Administration Efficiency
ALT	-	Altruism
BOCI	-	Business and Organisation Climate Index
CAST	-	Cognitive Appraisal Stress Test (PCI)
COM	-	Community
CON	-	Conventionality
EC	-	Emotional Control
EG	-	Egalitarianism
EMOT.DEF.	-	Emotional Defensiveness Scale
EPI	-	Eysenck Personality Inventory
ERST	-	Emotional Response to Stress Test
FO	-	Future Orientation
GEMOS	-	General Motivation Scale
IA	-	Interpersonal Aggression
IND	-	Industriousness
IO	-	Intellectual Orientation
JC	-	Job Challenge
LPD	-	Leader Psychological Distance
MCEI	-	Management Concern for Employee Involvement
OM	-	Open Mindedness
PERES	-	Perceived Responsibility and Concern Scale

PERNOS	-	Perceived Non-Satisfaction of Needs Scale
POG	-	Perceived Organisational Change
POPS	-	Perceived Organisation and Planning Scale
PRAC	-	Perceived Responsibility and Concern
PSYSOM	-	Psychosomatic Symptoms Scale
QA	-	Questioning Authority
RO	-	Rules Orientation
RTI	-	Readiness to Innovate
SOC	-	Sociability
SOCSUP	-	Social Supports Scale
STO	-	Science and Technical Orientation
TO	-	Task Orientation
WRST1 and 2	-	Work Behaviour Stress Response Scales

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SCHOOL ORGANISATION, TEACHERS WORK STRESS AND THE EFFECT OF AN INTERVENTION PROGRAMME

(Volume Two)

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APPENDIX

This Volume contains Appendices to the study described in Volume One. The contents of this Appendix Volume are shown on the following pages.

APPENDIX

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SCHOOL ORGANISATION AND PSYCHOLOGICAL STRESS IN TEACHING

Gavin Reid

Many studies have highlighted the prevalence of psychological stress in teaching and the multi-faceted nature of teacher stress (Dunham 1992, Brown and Ralph 1993, Boyle et al 1995). Some studies have also, however, identified school organisational factors as influential variables in the generation and amelioration of teacher work-stress (Tollan 1990, Proctor 1993, Hart, Wearing and Conn 1995). Without doubt the influence of school organisational factors has had an impact in increasing work-stress due to teachers perceiving that they have difficulty coping with the pace and extent of recent curricula and organisational changes. (McHugh and Kyle 1993, Badger 1994).

The research studies described here, conducted by the authors over a five-year period, focus on organisational factors in teaching and their relationship with teacher work stress. Four studies were conducted for this research involving a total of 212 teachers from both the Primary and Secondary sectors. One of the principal aims was to develop and evaluate a whole-school 'stress' package relating particularly to organisational and curricula changes.

The studies also examined the relationship between stress factors in teaching, the roles of perceived organisational change, personal planning, responsibility and concern and the relationship between stress variables and dimensions of the school organisational climate. A further study examined the effects of an intervention programme using three different treatment conditions - whole-school, individual counselling, and one primarily focusing on an aspect of the curriculum.

STRESS MODELS

There are a number of stress models which can be utilised to examine stress in teaching (Seyle 1982, Cox 1988, Karasek 1979, Moos 1988). For this particular research a transactional perspective was adopted by utilising the 'Psystress' model (Theoretical Model of Processes involved in Psychological Stress Causation, Continuation and Change, Hinton and Burton 1992). This model views stress as an intervening variable which forms part of a cybernetic system of transactions between man and the environment.

According to this model, stress results form an imbalance between perceived demands and perceived capabilities and that this occurs through the process of cognitive appraisal. The primary stress generation factor in the model is measured by a self-assessment instrument of Perceived Coping Incapacity (PCI) (Hinton and Rotheiler 1987). The model includes measures of perceived non-satisfaction of needs, social supports, psychosomatic ailments, emotional responses, work behaviour stress responses and a general motivation scale.

The model is appealing because it provides a comprehensive framework for work stress research which considers transactional influences and the systemic context of individuals and their role within organisations.

RELATIONSHIP BETWEEN STRESS FACTORS IN TEACHING

Three studies were undertaken with school staff, from both primary and secondary schools. The method was a within schools design and subjects were assessed by means of a questionnaire.

The results highlighted the relationship between recent educational changes and their effect on school organisation and teachers' coping resources. A significant negative correlation was found between supports and non-satisfaction of needs, and between supports and perceived coping incapacity ($P<0.001$). This is consistent with previous findings that school supports can act as a buffer against stress. (Lucas, Wilson and Hart 1986).

Significant correlations were also noted with perceived coping incapacity and perceived non-satisfaction of needs, and between perceived coping incapacity and physiological emotional and behavioural responses to stress. The results confirmed the established view relating to the interactional and multi-dimensional aspects of work stress (Trendall 1990) and reinforced the importance of school supports.

The results, together with the findings from the study conducted on organisational climate, helped to provide a framework for a staff development programme on teacher work stress.

ORGANISATIONAL CLIMATE AND TEACHER STRESS

Some studies have provided strong evidence for the effects of organisational change and in particular the importance of organisational climate (McHugh and Kyle 1993, Hart, Wearing and Conn 1995). It was felt, therefore that an in-service programme on teacher stress management should include aspects of organisational climate. To obtain more detailed data on the most appropriate dimensions of organisational climate to include in teacher stress management, a study was conducted on teachers from six primary schools, examining organisational climate dimensions in relation to work stress as identified within the psystress model.

Significant relationships were seen between organisational climate dimensions and measures of work stress, particularly relating to social supports, general motivation, perceived non-satisfaction of needs, emotional response to stress and work behaviour. Management concern for employee involvement and job challenge offered to play an important role in relation to stress generation, and this had implications for the role of management within schools and indicated that they had a key role to play in relation to dealing with and preventing teacher stress.

A factor analysis which was conducted on the organisational climate dimensions identified three factors which were named 'leadership insight', workplace ethos', and 'innovatory

climate'. This suggested an influential role for school management in contributing to the workplace ethos, helping to develop an innovatory climate and revealing a need for 'leadership insight'.

A WHOLE-SCHOOL PROGRAMME FOR STRESS MANAGEMENT

Following an examination of the data from the research briefly described above, a whole-school programme was developed for stress management.

The focus of the programme centred round the areas of:

- personal organisation
- inter-personal support
- school organisation
- organisational climate.

The framework for the programme is shown below:

- Personal Organisation
    - time management
    - planning and preparation
    - diary and record keeping
    - information gathering.

- School Organisation
    - Components of School Organisations
    - Organisational models
    - Vulnerable aspects of organisations
    - influence of organisations on staff interactions

- Inter-personal Support within Organisation
    - Nature of inter-personal support
    - Features of a supportive organisation
    - Inter-personal support and teaching

- Organisational Climate
    - Role of management
    - Organisational climate dimensions
    - Assessing climate

PROCEDURE

Prior to implementing the programme, base line data was collected through a number of questionnaires relating to the psystress model and organisational climate. In addition to this interviews were held with school staff.

The programme was implemented over one school term in one primary school. Two other schools were involved in the study, receiving the same base line questionnaire, but different interventions were used. The staff in one of the schools received individual counselling and the other a curriculum orientated programme. The three schools, all primary, were of similar size and catchment and a PCI measure (perceived coping incapacity) indicated that there were no significant differences between the three schools on PCI. All teachers from all three schools were involved.

RESULTS AND DISCUSSION

Following completion of the whole-school programme, the individual counselling programme and the literacy programme post-intervention data was collected from all participants.

In examining the results from the total sample some significant differences were noted. (see Table below:

Intervention Study
One Sample 't' Test

Table 47

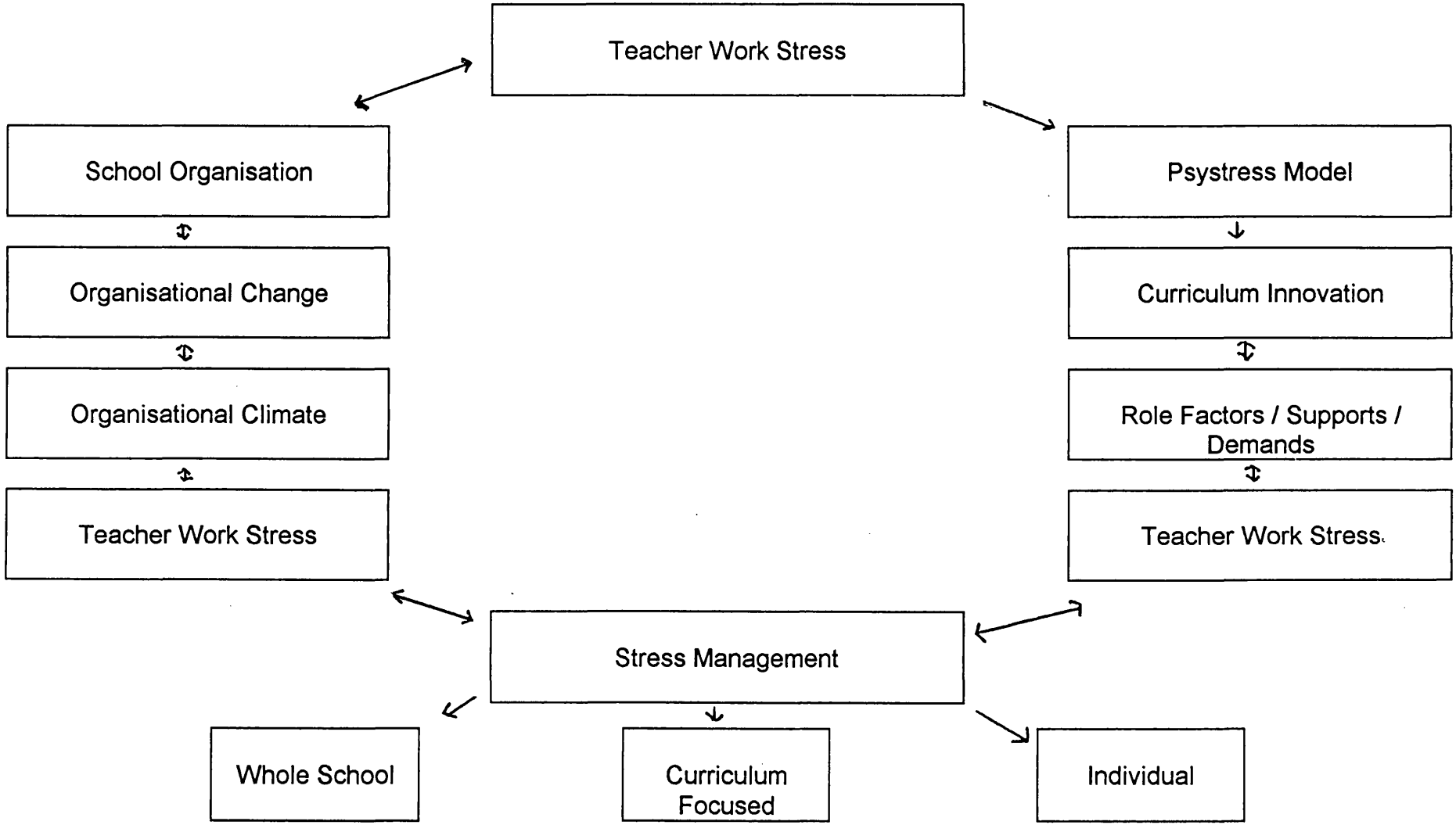
Variable	Groups Exp (Whole School)		Exp (Ind.Counselling)		Control (Literacy Group)		t	P(2 tail)
	M	SD	M	SD	M	SD		
PC1	-8.083	22.976	-9.211	16.518	-.235	19.354	-2.422	0.0193
SocSup	.471	9.07	2.053	8.1	4.059	7.677	-2.354	0.2557
Gemos	3.083	19.005	1	13.848	1	11.197	.254	0.8004
EKST	-7.667	22.568	-5.526	16.229	-1.235	15.683	-2.178	0.0344
PERNOS	-9.917	3.777	-3.053	6.485	-13.059	7.276	-8.512	0.001
Org.Change	.167	21.607	-2.158	5.669	8.235	15.659	.508	0.614
WRST1	-7.083	23.423	-10.474	15.932	-7.647	13.148	-3.938	0.0003
WRST2	-2.583	8.754	-2	8.055	-.529	7.099	-2.335	0.0239
Psysom	-.4333	20.061	-2.684	15.72	.647	14.3	-1.247	0.2185
Man Con	.167	1.697	.579	1.502	.824	2.007	-1.757	0.0854
Soc	-.083	2.539	.632	1.95	.471	1.419	-2.166	0.0354
Job Challenge	.333	2.57	.474	2.389	.941	2.164	-1.181	0.2436
RTI	1.333	1.723	.526	1.577	.941	2.221	-0.468	0.6423

It was noted, therefore, that differences were see in perceived coping incapacity, emotional responses to stress, work-related stress and sociability. Further analysis of the data revealed that no one single intervention accounted for these changes. All three, whole-school, individual counselling and the curriculum focused intervention together accounted for the significant changes. The implication of this is that teachers need to be aware of the relevance of stress management programmes in relation to their specific work remit, in addition to the general work context. One way to achieve this balance would be to include some aspect of the school curriculum into the stress management programme. At the same time teachers need to feel the programme is relevant to them as individuals. For this reason, therefore, it is also important to include an element of individual counselling in the programme. It is also important that opportunities exist for interactive discussion through workshop activities. It was noted that such interaction was a valuable component of the programme - a point highlighted in previous studies (Tollan 1990, Dunham 1992, Proctor 1993).

A MODEL FOR TEACHER STRESS MANAGEMENT

One of the aims of the research was to develop an appropriate and effective model to help teachers understand and deal with work stress. The model developed which was named 'Teacher Work Stress and School Stress Management - A Reciprocal Model for Intervention', considers the current climate within schools of organisational change, curricular innovation and role pressures. The model, therefore, was not static, nor prescriptive, but interactive and flexible. The main aspects of the model therefore showed how the psystress model related to teacher workstress and two dimensions in particular - organisational factors and curriculum issues. Both these factors related to each other and the teacher work stress. Both therefore were seen to be an important aspect in teacher stress management. The model illustrated that teacher stress management should be seen as a comprehensive exercise which should be contained in a flexible package drawing from whole-school, individual and curriculum perspectives.

Teacher Work Stress and School Stress Management - A Reciprocal Model for Intervention



The studies undertaken in this research showed that the 'psysteSs' model can be applied to the teaching profession. This model, together with organisational and curricular aspects provides positive and important aspects in the development of a stress management programme for teachers.

The studies also provided the components for the framework and the detail of the stress management programme. Factors such as personal planning, responsibility and concern, role of supports and dimensions of the school organisational climate were seen to be important aspects of the programme.

It was not surprising, therefore, that the factor analysis revealed combinations which were named, 'leadership insight', 'workplace ethos' and 'innovatory climate' as all three of these are proved to be influential throughout the studies and in the development of the programme.

The research confirmed the multi-dimensional aspect of teacher work stress and in part confirmed the findings of other similar studies (Tollan 1990, Durham 1992, Proctor 1993, Badger 1994). This particular research, however, also included a factor which represents a unique addition to the stress literature - the use of three different intervention conditions focusing on whole-school, individual and curriculum aspects. The reciprocal model of teacher stress management which emerged from this study, was derived therefore from observations and data from these three different interventions.

The research highlighted the importance of the availability of a that a soundly developed programme contextualised by an applied model of dealing with teacher stress for use within the teaching profession. This combination would help to highlight the multi-faceted nature of teacher stress through individual, organisational and curriculum factors and should prove useful to teachers, school management and education policy makers.

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APPENDIX

Inter-Relationships Between

Stress Factors in Teaching

App. 2

TASK PERFORMANCE: SELF RATING

TP 1 : I TACKLE EVERY WORK PROBLEM AS IT ARISES. ..... +
TP 2 : MY BEHAVIOUR IS CONSISTENT AND RELIABLE. ..... +
TP 3 : MY WORK GETS DISORGANISED. ..... -
TP 4 : I FORGET TO DO THINGS. ..... -
TP 5 : I HAVE DIFFICULTIES IN DEALING WITH PEOPLE. ..... -
TP 6 : I HAVE DIFFICULTIES IN DEALING WITH PARENTS. ..... -
TP 7 : I AVOID CONTACT WITH COLLEAGUES. ..... -
TP 8 : I AVOID CONTACT WITH PUPILS. ..... -
TP 9 : I AM SENSITIVE TO THE NEEDS OF INDIVIDUAL CHILDREN. +

HASSLES AND SUPPORT SCALE

HASSUP 1 : I THINK I GET GOOD ENOUGH SUPPORT FROM OTHERS. +
HASSUP 2 : I THINK I HAVE TO COPE WITH FREQUENT PETTY ANNOYANCES. ..... -
HASSUP 3 : I THINK I HAVE NO REALLY IRKSOME DEMANDS ON ME. +
HASSUP 4 : I THINK I CAN RELY ON HELPFUL ADVICE WHEN NEEDED+
HASSUP 5 : I THINK I HAVE TO GO IT ALONE WITH INSUFFICIENT ASSISTANCE. ..... -
HASSUP 6 : I THINK THAT I DON'T HAVE ENOUGH SUPPORTIVE BACK-UP. ..... -
HASSUP 7 : I THINK I HAVE TO FACE VERY FEW HASSLES. ..... +
HASSUP 8 : I THINK THAT MANY NIGGLING THINGS OCCUR DAILY WHICH HAVE TO BE DEALT WITH. ..... -

GENERAL MOTIVATION STATE

GEMOS 1 : I TAKE IT EASY. ..... -
GEMOS 2 : I FIND IT DIFFICULT TO FEEL MOTIVATED. ..... -
GEMOS 3 : I TEND TO LET THINGS DRIFT. ..... -
GEMOS 4 : I FEEL PRETTY UNMOTIVATED. ..... -
GEMOS 5 : I FEEL LIKE GIVING UP WHEN SEEING DIFFICULTIES. -
GEMOS 5 : I JUST CAN'T BE BOTHERED. ..... -

EMOTIONAL RESPONSE.

ERST 1 : I FEEL UPTIGHT.
ERST 2 : I FEEL DISTRAUGHT.

ERST 3 : I FEEL FULL OF ANGUISH.
ERST 4 : I FEEL UPSET.

COGNITIVE APPRAISAL STRESS TEST

CAST 1 : I CAN USUALLY THINK CLEARLY. ..... -
CAST 2 : I CAN EASILY MAKE UP MY MIND WHAT TO DO. ..... -
CAST 3 : USUALLY I AM ABLE TO CONCENTRATE. ..... -
CAST 4 : VARIOUS DEMANDS WHICH CONFRONT ME I FIND CONFUSING+
CAST 5 : I HAVE PROBLEMS IN BOTH ATTENDING AND
CONCENTRATING. ..... +
CAST 6 : I FIND IT EASY TO DIRECT AND MAINTAIN MY ATTENTION-
CAST 7 : I CAN CONCENTRATE WELL FOR LONG PERIODS. ..... -
CAST 8 : I OFTEN FIND MY ABILITY TO PAY ATTENTION DISTURBED+
CAST 9 : I TEND TO DITHER; TO BE INDECISIVE. ..... +
CAST 10: I FIND IT DIFFICULT TO FOCUS AND DIRECT MY
THOUGHTS. ..... +
CAST 11: MOSTLY I AM ABLE TO MAKE THE CORRECT DECISION. .. -

TASK PERFORMANCE: SELF RATING

TP 1 : I TACKLE EVERY WORK PROBLEM AS IT ARISES. ..... +
TP 2 : MY BEHAVIOUR IS CONSISTENT AND RELIABLE. ..... +
TP 3 : MY WORK GETS DISORGANISED. ..... -
TP 4 : I FORGET TO DO THINGS. ..... -
TP 5 : I HAVE DIFFICULTIES IN DEALING WITH PEOPLE. ..... -
TP 6 : I HAVE DIFFICULTIES IN DEALING WITH PARENTS. .... -
TP 7 : I AVOID CONTACT WITH COLLEAGUES. ..... -
TP 8 : I AVOID CONTACT WITH PUPILS. ..... -
TP 9 : I AM SENSITIVE TO THE NEEDS OF INDIVIDUAL CHILDREN +

HASSLES AND SUPPORT SCALE

HASSUP 1 : I THINK I GET GOOD ENOUGH SUPPORT FROM OTHERS. +
HASSUP 2 : I THINK I HAVE TO COPE WITH FREQUENT PETTY ANNOYANCES. ..... -
HASSUP 3 : I THINK I HAVE NO REALLY IRKSOME DEMANDS ON ME +
HASSUP 4 : I THINK I CAN RELY ON HELPFUL ADVICE WHEN NEEDED +
HASSUP 5 : I THINK I HAVE TO GO IT ALONE WITH INSUFFICIENT ASSISTANCE. ..... -
HASSUP 6 : I THINK THAT I DON'T HAVE ENOUGH SUPPORTIVE BACK-UP. ..... -
HASSUP 7 : I THINK I HAVE TO FACE VERY FEW HASSLES. .... +
HASSUP 8 : I THINK THAT MANY NIGGLING THINGS OCCUR DAILY WHICH HAVE TO BE DEALT WITH. ..... -

GENERAL MOTIVATION STATE

GEMOS 1 : I TAKE IT EASY. ..... -
GEMOS 2 : I FIND IT DIFFICULT TO FEEL MOTIVATED. .....
GEMOS 3 : I TEND TO LET THINGS DRIFT. ..... --
GEMOS 4 : I FEEL PRETTY UNMOTIVATED. ..... --
GEMOS 5 : I FEEL LIKE GIVING UP WHEN SEEING DIFFICULTIES -
GEMOS 5 : I JUST CAN'T BE BOTHERED. ..... -

EMOTIONAL RESPONSE.

EPST 1 : I FEEL UPTIGHT.
EPST 2 : I FEEL DISTRAUGHT.

ERS 3 : I FEEL FULL OF ANGUISH.
ERS 4 : I FEEL UPSET.

COGNITIVE APPRAISAL STRESS TEST

CAS 1 : I CAN USUALLY THINK CLEARLY. ..... -
CAS 2 : I CAN EASILY MAKE UP MY MIND WHAT TO DO. ..... -
CAS 3 : USUALLY I AM ABLE TO CONCENTRATE. ..... -
CAS 4 : VARIOUS DEMANDS WHICH CONFRONT ME I FIND CONFUSING+
CAS 5 : I HAVE PROBLEMS IN BOTH ATTENDING AND
CONCENTRATING. ..... +
CAS 6 : I FIND IT EASY TO DIRECT AND MAINTAIN MY ATTENTION-
CAS 7 : I CAN CONCENTRATE WELL FOR LONG PERIODS. ..... -
CAS 8 : I OFTEN FIND MY ABILITY TO PAY ATTENTION DISTURBED+
CAS 9 : I TEND TO DITHER; TO BE INDECISIVE. ..... +
CAS 10: I FIND IT DIFFICULT TO FOCUS AND DIRECT MY
THOUGHTS. ..... +
CAS 11: MOSTLY I AM ABLE TO MAKE THE CORRECT DECISION. .. -

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DATA LIST FILE= "MINI1.DAT" / ID 1-2
SEX 3 AGE 4 EXP 5 STATUS 6 TIMEMAN 7-8 TIMEADM 9-10
TIMETECH 11-12 DOMCOM 13-14 TP1 15-16 HASSUP1 17-18 TP2 19-20 HASSUP2 22-23
ERST1 25-26 CAST1 27-28 GEMOS1 29-30 GEMOS2 32-33 GEMOS3 35-36 TP3 38-39
TP4 41-42 HASSUP3 43-44 CAST2 45-46 HASSUP4 47-48 CAST3 49-50 TP5 52-53
GEMOS4 55-56 CAST4 58-59 GEMOS5 61-62 ERST2 64-65 TP6 67-68 HASSUP5 70-71
HASSUP6 73-74 ERST3 76-77 / CAST5 2-3 TP7 5-6 TP8 8-9 ERST4 11-12 CAST6 13-1
CAST7 15-16 HASSUP7 17-18 TP9 19-20 HASSUP8 22-23 CAST8 25-26 GEMOS6 28-29
CAST9 31-32 CAST10 34-35 CAST11 36-37 PERNOS1 TO PERNOS4 38-45
PSYSOM01 TO PSYSOM14 46-73 POG01 74-75 POG02 76-77 / POG03 TO POG10 1-16
INSERV 17-18.

VARIABLE LABELS ID "SUBJECT NUMBER"
/EXP "NUMBER OF YEARS EXPERIENCE"
/TIMEMAN "% TIME OCCUPIED BY MANAGEMENT"
/TIMEADM "% TIME OCCUPIED BY ADMINISTRATION"
/TIMETECH "% TIME OCCUPIED BY TEACHING"
/DOMCOM "EXTENT OF DOMESTIC COMMITMENTS"
/PSYSOM01 "EXHAUSTION"
/PSYSOM02 "GETTING TIRED QUICKLY"
/PSYSOM03 "MUSCLE TENSION"
/PSYSOM04 "BACK PAINS"
/PSYSOM05 "MUSCLE ACHES"
/PSYSOM06 "FATIGUE"
/PSYSOM07 "HEADACHES"
/PSYSOM08 "PHYSICAL WEAKNESS"
/PSYSOM09 "BREATHLESSNESS"
/PSYSOM10 "DIZZINESS"
/PSYSOM11 "HEART PALPITATIONS/PAINS"
/PSYSOM12 "MUSCLE TWITCHES/TREMBLING"
/PSYSOM13 "IRRITATION/NUMBNESS OF SKIN"
/PSYSOM14 "STOMACH UPSETS"
/POG01 "INCREASED ADMIN DEMANDS"
/POG02 "IMPOSED CIRRICULA CHANGES"
/POG03 "INTEGRATION OF BROAD ABILITIES"
/POG04 "INTEGRATION OF SPECIAL NEED PUPILS"
/POG05 "INCREASED INTERNAL DEMANDS ON TIME"
/POG06 "INCREASED EXTERNAL DEMANDS ON TIME"
/POG07 "PARENTAL DEMANDS;ORG.AND CIRR."
/POG08 "PARENTAL DEMANDS;INDIVIDUAL PROGRESS"
/POG09 "JOB SECURITY;COMPULSORY TRANSFERS"
/POG10 "CHANGING ROLE;SUBJECT MERGERS"
/INSERV "VALUE OF INSERVICE TRAINING".



VALUE LABELS SEX 1 "MALE" 2 "FEMALE"
/AGE 1 "<25" 2 "26-35" 3 "36-45" 4 "46-55" 5 ">55"
/EXP 1 "0-2" 2 "3-6" 3 "7-10" 4 "11-14" 5 ">15"
/STATUS 1 "PROMOTED" 2 "UNPROMOTED"
/DOMCOM 1 "NOT DEMANDING" 2 "VERY DEMANDING"
/PERNOS1 1 "IMP. NEEDS SATIS." 20 "IMP. NEEDS NOT SATIS"
/PERNOS2 1 "IMP. NEEDS SATIS." 20 "IMP. NEEDS NOT SATIS"
/PERNOS3 1 "IMP. NEEDS SATIS." 20 "IMP. NEEDS NOT SATIS"
/PERNOS4 1 "IMP. NEEDS SATIS." 20 "IMP. NEEDS NOT SATIS"
/POG01 TO POG10 1 "TOTALLY UNAFFECTED" 10 "STRONGLY AFFECTED"
/INSERV 1 "NOT HELPFUL" 10 "VERY BENEFICIAL".
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OMPUTE PSYSORO1= (SQRT (PSYSOMO1) ).
OMPUTE PSYSORO2= (SQRT (PSYSOMO2) ).
OMPUTE PSYSORO3= (SQRT (PSYSOMO3) ).
OMPUTE PSYSORO4= (SQRT (PSYSOMO4) ).
OMPUTE PSYSORO5= (SQRT (PSYSOMO5) ).
OMPUTE PSYSORO6= (SQRT (PSYSOMO6) ).
OMPUTE PSYSORO7= (SQRT (PSYSOMO7) ).
OMPUTE PSYSORO8= (SQRT (PSYSOMO8) ).
OMPUTE PSYSORO9= (SQRT (PSYSOMO9) ).
OMPUTE PSYSOR10= (SQRT (PSYSOM10) ).
OMPUTE PSYSOR11= (SQRT (PSYSOM11) ).
OMPUTE PSYSOR12= (SQRT (PSYSOM12) ).
OMPUTE PSYSOR13= (SQRT (PSYSOM13) ).
OMPUTE PSYSOR14= (SQRT (PSYSOM14) ).
OMPUTE HASSUPT= (HASSUP1-HASSUP2+HASSUP3+HASSUP4-HASSUP5-HASSUP6+HASSUP7-
ASSUP8).
OMPUTE CASTT= (0-CAST1-CAST2-CAST3+CAST4+CAST5-CAST6-CAST7+CAST8+CAST9+CAST1
CAST11).
OMPUTE TPTOT= (TP1+TP2-TP3-TP4-TP5-TP6-TP7-TP8+TP9).
OMPUTE GEMOST= (0-GEMOS1-GEMOS2-GEMOS3-GEMOS4-GEMOS5-GEMOS6).
OMPUTE ERSTOT= (0+ERST1+ERST2+ERST3+ERST4).
OMPUTE PERNOST= (PERNOS1+PERNOS2+PERNOS3+PERNOS4).
OMPUTE PSYSORT= (PSYSORO1+PSYSORO2+PSYSORO3+PSYSORO4+PSYSORO5+PSYSORO6+
SYSORO7+PSYSORO8+PSYSORO9+PSYSOR10+PSYSOR11+PSYSOR12+PSYSOR13+PSYSOR14).
OMPUTE POGT= (POGO1+POGO2+POGO3+POGO4+POGO5+POGO6+POGO7+POGO8+POGO9+POG10).
OMPUTE FATIGUE= (PSYSORO1+PSYSORO2+PSYSORO6+PSYSORO7+PSYSORO8).
OMPUTE MUSCLE= (PSYSORO3+PSYSORO4+PSYSORO5).
OMPUTE DECISION= (0-CAST1-CAST2+CAST4+CAST9-CAST11).
OMPUTE CONC= (0-CAST3+CAST5-CAST6-CAST7+CAST10).
OMPUTE SUPPORT= (HASSUP1+HASSUP4-HASSUP5-HASSUP6).
OMPUTE HASSLES= (0+HASSUP2-HASSUP3-HASSUP7+HASSUP8).


ARIABLE LABELS HASSUPT "HASSUP TOTAL"
 CASTT "CAST TOTAL"
 TPTOT "TASK PERF. TOTAL"
 GEMOST "GEMOS TOTAL"
 ERSTOT "ERST TOTAL"
 PERNOST "PERCEIVED NON SATIS TOTAL"
 PSYSORT "PSYSOMATIC RESPONSE TOTAL"
 POGT "PERCEIVED ORG CHANGE TOTAL"
 FATIGUE "SUB PSYSOM ; FATIGUE"
 MUSCLE "SUB PSYSOM ; MUSCULAR"
 DECISION "SUB CAST ; DECISION MAKING"
 CONC "SUB CAST ; ATTENTION AND CONC "
 SUPPORT "SUB HASSUP ; SUPPORT"
 HASSLES "SUB HASSUP ; HASSLES"


EQUENCIES HASSUPT CASTT TPTOT GEMOST ERSTOT PERNOST PSYSORT POGT FATIGUE
USCLE DECISION CONC SUPPORT HASSLES
ISTOGRAM
TATISTICS = MEAN STDDEV SKEWNESS.
```

Variable	Cases	Mean	Std Dev
HASSUPT	69	-4.8116	12.9901
CASTT	69	-25.3333	17.0524
TPTOT	68	5.0441	11.1375
GEMOST	65	-20.6154	10.5144
ERSTOT	69	14.0145	8.3463
PERNOST	65	54.0000	7.9156
PSYSORT	69	32.1189	10.7432
POGT	64	54.4688	18.4356
FATIGUE	69	15.0627	6.2405
MUSCLE	69	7.2303	3.8484
DECISION	69	-14.4203	8.0099
CONC	70	-16.3286	8.5240
SUPPORT	69	3.4638	9.0075
HASSLES	70	8.3857	6.9954

Correlations:	HASSUPT	CASTT	TPTOT	GEMOST	ERSTOT	PERNOST
HASSUPT	1.0000	-.4762**	.2647	.3958*	-.5574**	-.4561**
CASTT	-.4762**	1.0000	-.6747**	-.6413**	.5651**	.5131**
TPTOT	.2647	-.6747**	1.0000	.7048**	-.4412**	-.4914**
GEMOST	.3958*	-.6413**	.7048**	1.0000	-.5629**	-.4528**
ERSTOT	-.5574**	.5651**	-.4412**	-.5629**	1.0000	.4072**
PERNOST	-.4561**	.5131**	-.4914**	-.4528**	.4072**	1.0000
PSYSORT	-.3796*	.5765**	-.3188*	-.3953*	.5054**	.3756*
POGT	-.3010	.2334	-.2250	-.0309	.2746	-.0317
FATIGUE	-.3826*	.4653**	-.2312	-.3091	.3919**	.3087
MUSCLE	-.1320	.3227*	-.2495	-.2015	.3016	.2682
DECISION	-.5041**	.9278**	-.6237**	-.6486**	.5692**	.4420**
CONC	-.3575*	.9422**	-.6624**	-.6074**	.5000**	.4915**
SUPPORT	.8593**	-.4274**	.2869	.3835*	-.5799**	-.4115**
HASSLES	-.7516**	.3344*	-.1224	-.2449	.2888	.3132

Minimum pairwise N of cases: 59 2-tailed Signif: * - .01 ** - .(

Correlations:	PSYSORT	POGT	FATIGUE	MUSCLE	DECISION	CONC
HASSUPT	-.3796*	-.3010	-.3826*	-.1320	-.5041**	-.3575*
CASTT	.5765**	.2334	.4653**	.3227*	.9278**	.9422*
TPTOT	-.3188*	-.2250	-.2312	-.2495	-.6237**	-.6624*
GEMOST	-.3953*	-.0309	-.3091	-.2015	-.6486**	-.6074*
ERSTOT	.5054**	.2746	.3919**	.3016	.5692**	.5000*
PERNOST	.3756*	-.0317	.3087	.2682	.4420**	.4915*
PSYSORT	1.0000	.2301	.8415**	.7289**	.5775**	.5271*
POGT	.2301	1.0000	.3096	.1265	.1848	.2780
FATIGUE	.8415**	.3096	1.0000	.3646*	.4610**	.4333*
MUSCLE	.7289**	.1265	.3646*	1.0000	.3030	.3196*
DECISION	.5775**	.1848	.4610**	.3030	1.0000	.7926*
CONC	.5271**	.2780	.4333**	.3196*	.7926**	1.0000
SUPPORT	-.3500*	-.2236	-.3683*	-.1074	-.4544**	-.3271*
HASSLES	.2474	.2672	.2370	.1035	.5514*	.2250

Minimum pairwise N of cases: 59 2-tailed Signif: * - .01 ** -

Correlations:	SUPPORT	HASSLES
HASSUPT	.8593**	-.7516**
CASTT	-.4274**	.3344*

Correlations:	SUPPORT	HASSLES
HASSUPT	.8593**	-.7516**
CASTT	-.4274**	.3344*
TPTOT	.2865	-.1874
GEMOST	.3835*	-.2449
ERSTOT	-.5799**	.2893
PERNOST	-.4115**	.3132
PSYSORT	-.3500*	.2474
POST	-.2236	.2672
FATIGUE	-.3693*	.2970
MUSCLE	-.1074	.1035
DECISION	-.4544**	.3514*
CONC	-.3271*	.2250
SUPPORT	1.0000	-.3085*
HASSLES	-.3085*	1.0000

Minimum pairwise N of cases: 59 2-tailed Signif: * - .0

Appendix 3

PERCEIVED ORGANIZATIONAL CHANGE

PLEASE RATE THE EXTENT TO WHICH THE FOLLOWING ORGANIZATIONALCHANGES WITHIN THE EDUCATION SYSTEM HAVE AFFECTED YOU (AS A TEACHER)

	totally unaffected									strongly affected
1. Increase in administrative demands	1	2	3	4	5	6	7	8	9	10
2. Imposed Cirricular changes	1	2	3	4	5	6	7	8	9	10
3. Inclusion of broad ability ranges in class	1	2	3	4	5	6	7	8	9	10
4. Integration of special need pupils in classes	1	2	3	4	5	6	7	8	9	10
5. Increase in time occupied by meetings with other staff	1	2	3	4	5	6	7	8	9	10
6. Increase in time occupied by meetings with outside agencies	1	2	3	4	5	6	7	8	9	10
7. Increased parental demands operating in schools concerning										
a) school organization and cirriculum	1	2	3	4	5	6	7	8	9	10
b) individual childs progress	1	2	3	4	5	6	7	8	9	10
8. Job security in relation to compulsory transfers	1	2	3	4	5	6	7	8	9	10
9. Changing role in relation to subject mergers	1	2	3	4	5	6	7	8	9	10

	Not helpful									very beneficial
TO WHAT EXTENT DO YOU THINK INSERVICE TRAINING IS BENEFICIAL IN HELPING YOU COPE WITH THESE ORGANIZATIONAL CHANGES?	1	2	3	4	5	6	7	8	9	10

APPENDIX

The Roles of Perceived Organisational Change,

Personal Planning and Perceived Responsibility and Concern

APPENDIX 4

MORAY HOUSE COLLEGE

Principal : **Gordon Kirk** MA M Ec

Holyrood Campus, Holyrood Road, Edinburgh EH8 8AQ

Fax 031 557 3458

Tel. 031 556 8455

DEPARTMENT OF PROFESSIONAL AND CURRICULUM SUPPORT STUDIES:
SPECIFIC LEARNING DIFFICULTIES PROJECT

Ref: GR/MMC

Date as postmark

Dear Colleague

RE: STRESS QUESTIONNAIRE

I would be grateful if you could complete the enclosed questionnaire, which will form an important part of my current research supervised by the Psychology Department at Glasgow University.

I should be able to give you some individual, anonymous, feedback in the form of a stress profile. To make this possible, could you letter code your questionnaire return using perhaps two or three letters e.g. MNM in order that I could send you your own profile.

Thank you for your co-operation and should you require any further information, please do not hesitate to contact me.

Yours sincerley

Gavin Reid
Co-ordinator
Specific Learning Difficulties

APPENDIX 5

MEMORANDUM

TO: ALL STAFF

FROM: MCR

DATE: 14 JUNE 1991

RESEARCH AND STRESS

Gavin Reid, Co-ordinator, Specific Learning Difficulties at Moray House is at present conducting research into stress and has asked if I would issue copies of a questionnaire to all staff. At least one other secondary school has been involved.

The time to complete this questionnaire is 15-20 minutes and should be completed only on a voluntary basis. Those of you who wish to do so should hand in the attached questionnaire to the office by Friday 21 June 1991.

APPENDIX 6

TOTAL ANONYMITY IS ENSURED

PLEASE TICK APPROPRIATE BOXES

Male ☐ **Female** ☐

Class Teacher ☐ Support Teacher ☐

Principal Teacher ☐ School Management ☐

AGE:

20-30 years ☐ 30-40 years ☐ 40-50 years ☐ 50+ years ☐

TOTAL EXPERIENCE AS TEACHER:

Less 2 year ☐ 2-5 year ☐ 5-10 year ☐ 10-15 year ☐ 15-20 year ☐ 20 years + ☐

LENGTH OF SERVICE IN THIS POST:

1-2 years ☐ 2-4 years ☐ 4-6 years ☐ 6-8 years ☐ 8-10 years ☐ 10-12 years ☐ 12 years + ☐

CODE _____ SEX _____ AGE _____ JOB DESCRIPTION _____

COGNITIVE APPRAISAL STRESS TEST (CAST)

INDICATE HOW YOU GENERALLY COPE WITH SITUATIONS. ANSWER EACH QUESTION. (PLEASE CIRCL THE MOST APPROPRIATE NUMBER FOR EACH STATEMENT, USING THE 10-POINT 'EQUAL-INTERVA SCALE)

INSERT RATING NUMBER AS APPROPRIATE IN FINAL 3 COLUMNS

ANSWER *VERY* QUICKLY WITH NO "CROSS CHECKING"

	LIFE GENERALLY *APPLIES TO ME:*	AT WORK	AT HOME (DOMESTIC)	WITH FRIEND-SHIPS AND SOCIAL LIFE (OUTSIDE HOME)
1. I generally find myself under excessive time pressure.	DISAGREE AGREE 1 2 3 4 5 6 7 8 9 10			
2. I find many things too difficult to handle.	NEVER FREQUENTLY 1 2 3 4 5 6 7 8 9 10			
3. Usually I am able to concentrate.	WITH GREAT DIFFICULTY VERY WELL 1 2 3 4 5 6 7 8 9 10			
4. Mostly, I think I am able to make correct decisions.	DISAGREE STRONGLY AGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			
5. I can usually think clearly.	DISAGREE STRONGLY AGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			
6. Various demands which confront me I find confusing.	NEVER FREQUENTLY 1 2 3 4 5 6 7 8 9 10			
7. Generally I think I have poor control over situations.	AGREE STRONGLY DISAGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			

CODE _____

		LIFE GENERALLY *APPLIES TO ME:*	AT WORK	AT HOME (DOMESTIC)	WITH FRIENDSHIPS AND SOCIAL LIFE (OUTSIDE HOME)
8.	I usually think I am capable.	AGREE STRONGLY — DISAGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			
9.	Much of my life is too complicated.	NOT AT ALL — DEFINITELY YES 1 2 3 4 5 6 7 8 9 10			
10.	I think that most situations are easy to deal with.	NOT AT ALL — DEFINITELY YES 1 2 3 4 5 6 7 8 9 10			
11.	Usually I have no difficulty in sorting out ideas.	DISAGREE STRONGLY — AGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			
12.	I am generally a quick thinker.	AGREE STRONGLY — DISAGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			
13.	My abilities are usually sufficient for what I am expected to do.	AGREE STRONGLY — DISAGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			
14.	Generally I think I am coping well.	AGREE STRONGLY — DISAGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			
15.	I often find my ability to pay attention disturbed.	AGREE STRONGLY — DISAGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			
16.	Frequently I cannot reason as clearly as I should.	AGREE STRONGLY — DISAGREE STRONGLY 1 2 3 4 5 6 7 8 9 10			

PERCEIVED NON-SATISFACTION OF NEEDS (PERNOS)

Please complete as quickly as possible using the 10 point equal interval scale. Circle the relevant figure.

With reference to your work please rate the following:

		a) Extent to which you think these needs are important	b) Extent to which these needs are satisfied
		Not at all Max	Not at all Max
1.	Need to gain more interesting information to deal with.	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
2.	Need to feel I have done something worthwhile.	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
3.	Need to explore things and exercise curiosity.	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
4.	Need to have a good control over situations.	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10

PERCEIVED ORGANISATIONAL CHANGE

Please rate the extent to which the following organisational changes within the education system have affected you (as a teacher).

		totally unaffected									strongly affected
1.	Increase in administrative demands	1	2	3	4	5	6	7	8	9	10
2.	Imposed Curricular changes	1	2	3	4	5	6	7	8	9	10
3.	Inclusion of broad ability range in class	1	2	3	4	5	6	7	8	9	10
4.	Integration of special need pupils in classes	1	2	3	4	5	6	7	8	9	10
5.	Increase in time occupied by meetings with other staff	1	2	3	4	5	6	7	8	9	10
6.	Increase in time occupied by meeting with outside agencies	1	2	3	4	5	6	7	8	9	10
7.	Increase parental demands operating in schools concerning:										
	a) school organisation and curriculum	1	2	3	4	5	6	7	8	9	10
	b) individual childs' progress	1	2	3	4	5	6	7	8	9	10
8.	Job security in relation to compulsory transfers	1	2	3	4	5	6	7	8	9	10

Perceived Organisation and Planning Scale (POPS)

Rate the items below 0 - 10 on how you perceive your own practice in organisation and planning:

0 = NO : 10 = ALWAYS

		Rate extent to which you carry out these activities	Rate how important the activities are
		0 10	0 1
1.	Setting short term goals		
2.	Setting long term goals		
3.	Work strictly to a timetable		
4.	Keep record of work		
5.	Keep memos and documents filed		
6.	Keep materials & resources catalogued		
7.	Planning each classroom lesson		
8.	Attending meetings on time		
9.	Setting and working in order of priorities		

Perceived Responsibility and Concern Scale

Please rate 0 = 10 the level of responsibility and concern you feel regarding the items listed below:

A. SCHOOL AND DEPARTMENTAL	Level of Responsibility	Level of Concern
1. Requisitioning of materials		
2. Curriculum development		
3. Implementation of educational innovations		
4. Delegation of work		
5. Deployment of staff		
6. Timetabling		

Perceived Responsibility and Concern Scale

Please rate 0 - 10 the level of responsibility and concern you fee
regarding the items listed below:

B. PUPILS	Level of Responsibility	Level of Concern
1. Pupil behaviour		
2. Exam results		
3. Pupil attitudes to school		
4. Pupil attitude to the work in your class		
5. Pupils interactions with peers		
6. Pupil well-being		

Perceived Responsibility and Concern Scale

Please rate 0 - 10 below the level of responsibility and concern yo
feel regarding the items listed below:

C. INTER-PERSONAL	Level of Responsibility	Level of Concern
1. Job satisfaction of others in department		
2. Advice to others on curriculum		
3. Advice and counsel to colleagues on other matters		
4. Participating in social aspects of school.		

Perceived Responsibility and Concern Scale

Please rate 0 - 10 the level of responsibility and concern you fee
regarding the items listed below:

D. PERSONAL	Level of Responsibility	Level of Concern
1. Personal financial matters		
2. Family responsibility		

		YES	NO
1.	Do you like plenty of excitement and bustle around you?	○	○
2.	Have you often got a restless feeling that you want something but do not know what?	○	○
3.	Do you nearly always have a "ready answer" when people talk to you?	○	○
4.	Do you sometimes feel happy, sometimes sad, without any real reason?	○	○
5.	Do you usually stay in the background at parties and "get-togethers"?	○	○
6.	As a child, did you always do as you were told immediately and without grumbling?	○	○
7.	Do you sometimes sulk?	○	○
8.	When you are drawn into a quarrel, do you prefer to "have it out" to being silent, hoping things will blow over?	○	○
9.	Are you moody?	○	○
10.	Do you like mixing with people?	○	○
11.	Have you often lost sleep over your worries?	○	○
12.	Do you sometimes get cross?	○	○
13.	Would you call yourself happy-go-lucky?	○	○
14.	Do you often make up your mind too late?	○	○
15.	Do you like working alone?	○	○
16.	Have you often felt listless and tired for no good reason?	○	○
17.	Are you rather lively?	○	○
18.	Do you sometimes laugh at a dirty joke?	○	○
19.	Do you often feel "fed-up"?	○	○
20.	Do you feel uncomfortable in anything but everyday clothes?	○	○
21.	Does your mind often wander when you are trying to attend closely to something?	○	○
22.	Can you put your thoughts into words quickly?	○	○
23.	Are you often "lost in thought"?	○	○
24.	Are you completely free from prejudices of any kind?	○	○
25.	Do you like practical jokes?	○	○
26.	Do you often think of your past?	○	○
27.	Do you very much like good food?	○	○

		YES	NO
28.	When you get annoyed, do you need someone friendly to talk to about it?	○	○
29.	Do you mind selling things or asking people for money for some good cause?	○	○
30.	Do you sometimes boast a little?	○	○
31.	Are you touchy about some things?	○	○
32.	Would you rather be at home on your own than go to a boring party?	○	○
33.	Do you sometimes get so restless that you cannot sit long in a chair?	○	○
34.	Do you like planning things carefully, well ahead of time?	○	○
35.	Do you have dizzy turns?	○	○
36.	Do you *always* answer a personal letter as soon as you can after you have read it?	○	○
37.	Can you usually do things better by figuring them out alone than by talking to others about it?	○	○
38.	Do you ever get short of breath without having done heavy work?	○	○
39.	Are you an easy-going person, not generally bothered about having everything "just-so"?	○	○
40.	Do you suffer from "nerves"?	○	○
41.	Would you rather plan things than do things?	○	○
42.	Do you sometimes put off until tomorrow what you ought to do today?	○	○
43.	Do you get nervous in places like lifts, trains or tunnels?	○	○
44.	When you make new friends, is it usually *you* who makes the first move, or does the inviting?	○	○
45.	Do you get very bad headaches?	○	○
46.	Do you generally feel that things will sort themselves out and come right in the end somehow?	○	○
47.	Do you find it hard to fall asleep at bedtime?	○	○
48.	Have you sometimes told lies in your life?	○	○
49.	Do you sometimes say the first thing that comes into your head?	○	○
50.	Do you worry too long after an embarrassing experience?	○	○
51.	Do you usually keep "yourself to yourself" except with very close friends?	○	○
52.	Do you often get into a jam because you do things without thinking?	○	○
53.	Do you like cracking jokes and telling funny stories to your friends?	○	○
54.	Would you rather win than lose a game?	○	○
55.	Do you often feel self-conscious when you are with superiors?	○	○
56.	When the odds are against you, do you still usually think it worth taking a chance?	○	○
57.	Do you often get "butterflies in your tummy" before an important occasion?	○	○

Descriptive Statistics

Variable	Mean	Std Dev	Minimum	Maximum	N	Label
SEX	1.38	.49	1	2	40	GENDER
JOBDESCR	1.93	1.12	1	4	40	JOB DESCRIPTION
AGE	2.72	.93	1	4	40	AGE BAND
TCHEXPER	4.60	1.43	1	6	40	TEACHING EXPERIENCE
LOSIP	4.20	2.26	1	7	40	LENGTH OF SERVICE
CASTLIFE	72.80	18.48	41	118	40	LIFE STRESS
CASTWORK	76.15	22.13	29	136	40	WORK STRESS
CASTHOME	68.73	22.25	29	127	40	HOME STRESS
CASTSOC	63.60	18.60	29	99	40	SOCIAL STRESS
PERNOS	159.90	62.94	60	312	40	PERCEIVED NON-SATISFACTION
PERORGCH	53.20	15.08	25	79	40	PERCEIVED ORGANISATION
POPS	14.35	8.94	0	37	40	PERCEIVED ORGANISATION
PERRESP	115.88	30.97	52	171	40	PERCEIVED REPONSIBILY
PERCONCR	123.62	25.38	70	176	40	PERCEIVED CONCERN
EPI	9.80	4.86	2	22	40	PERSONALITY INVENTORY

APPENDIX 8

SCRIPTIVES /VARIABLES ALL /STATISTICS 13.

mber of Valid Observations (Listwise) = 40.00

riable	Mean	Std Dev	Minimum	Maximum	N	Label
X	1.38	.49	1	2	40	GENDER
BDESCR	1.93	1.12	1	4	40	JOB DESCRIPTION
E	2.72	.93	1	4	40	AGE BAND
HEXPER	4.60	1.43	1	6	40	TEACHING EXPERIENCE
SIP	4.20	2.26	1	7	40	LENGTH OF SERVICE IN
STLIFE	72.80	18.48	41	118	40	LIFE STRESS
STWORK	76.15	22.13	29	136	40	WORK STRESS
STHOME	68.73	22.25	29	127	40	HOME STRESS
STSOC	63.60	18.60	29	99	40	SOCIAL STRESS
RNOS	159.90	62.94	60	312	40	PERCEIVED NON-SATISF
RORGCH	53.20	15.08	25	79	40	PERCEIVED ORGANISATI
PS	14.35	8.94	0	37	40	PERCEIVED ORGANISATI
RRESP	115.88	30.97	52	171	40	PERCEIVED REPONSIBIL
RCONCR	123.62	25.38	70	176	40	PERCEIVED CONCERN
I	9.80	4.86	2	22	40	PERSONALITY INVENTOR

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s procedure was completed at 12:55:54

RRELATIONS ALL.

rrelations:	SEX	JOBDESCR	AGE	TCHEXPER	LOSIP	CASTLIFE
SEX	1.0000	-.2280	-.1051	-.2196	-.1159	.0396
JOBDESCR	-.2280	1.0000	.2254	.4462*	-.0752	.0514
AGE	-.1051	.2254	1.0000	.7423**	.5871**	.1067
TCHEXPER	-.2196	.4462*	.7423**	1.0000	.5507**	-.1051
LOSIP	-.1159	-.0752	.5871**	.5507**	1.0000	.0096
CASTLIFE	.0396	.0514	.1067	-.1051	.0096	1.0000
CASTWORK	-.0904	.1953	.1423	.0782	.1175	.8822**
CASTHOME	-.0209	.0692	.1555	-.0899	-.0372	.8611**
CASTSOC	.0281	.0059	-.1187	-.3120	-.1032	.7204**
PERNOS	.0810	-.4398*	-.0659	-.0766	.3191	-.0876
PERORGCH	-.0277	.1271	.3010	.2502	.1639	.2001
POPS	-.0249	.0925	.1840	-.0048	.0142	.5001**
PERRESP	-.1015	.6149**	.2072	.2237	.0374	.1140
PERCONCR	.0240	.3856*	-.0889	-.0410	-.0417	.0421
EPI	.1613	-.1867	-.1028	-.2406	-.0103	.5715**

of cases: 40 1-tailed Signif: * - .01 ** - .001

" is printed if a coefficient cannot be computed

rrelations:	CASTWORK	CASTHOME	CASTSOC	PERNOS	PERORGCH	POPS
SEX	-.0904	-.0209	.0281	.0810	-.0277	-.0249
JOBDESCR	.1953	.0692	.0059	-.4398*	.1271	.0925
AGE	.1423	.1555	-.1187	-.0659	.3010	.1840
TCHEXPER	.0782	-.0899	-.3120	-.0766	.2502	-.0048
LOSIP	.1175	-.0372	-.1032	.3191	.1639	.0142
CASTLIFE	.8822**	.8611**	.7204**	-.0876	.2001	.5001**
CASTWORK	1.0000	.6418**	.4965**	-.0242	.1808	.3520
CASTHOME	.6418**	1.0000	.7762**	-.1539	.1747	.4309*
CASTSOC	.4965**	.7762**	1.0000	-.1157	.1023	.2117
PERNOS	-.0242	-.1539	-.1157	1.0000	.1289	.0092
PERORGCH	.1808	.1747	.1023	.1289	1.0000	.3903*
POPS	.3520	.4309*	.2117	.0092	.3903*	1.0000
PERRESP	.1603	.1158	.1256	-.2556	.3500	.2139
PERCONCR	.1017	-.0021	.1027	.0122	.1265	.1326
EPI	.5126**	.5047**	.4917**	.2547	.2051	.1574

of cases: 40 1-tailed Signif: * - .01 ** - .001

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orrelations:	PERRESP	PERCONCR	EPI
SEX	-.1015	.0240	.1613
JOBDESCR	.6149**	.3856*	-.1867
AGE	.2072	-.0889	-.1028
TCHEXPER	.2237	-.0410	-.2406
LOSIP	.0374	-.0417	-.0103
CASTLIFE	.1140	.0421	.5715**
CASTWORK	.1603	.1017	.5126**
CASTHOME	.1158	-.0021	.5047**
CASTSOC	.1256	.1027	.4917**
PERNOS	-.2556	.0122	.2547
PERORGCH	.3500	.1265	.2051
POPS	.2139	.1326	.1574
PERRESP	1.0000	.6590**	.0019
PERCONCR	.6590**	1.0000	.0974
EPI	.0019	.0974	1.0000

N of cases: 40 1-tailed Signif: * - .01 ** - .001

" . " is printed if a coefficient cannot be computed

This procedure was completed at 12:58:05

Correlation Matrix for Promoted Staff

Correlations:	SEX	JOBDESCR	AGE	TCHEXPER	LOSIP	CASTLIFE
SEX	1.0000	.	-.1340	-.3350	-.1897	-.3574
JOBDESCR	.	1.0000	.	.	.	.
AGE	-.1340	.	1.0000	.5556	.5328	.4427
TCHEXPER	-.3350	.	.5556	1.0000	.5384	.2886
LOSIP	-.1897	.	.5328	.5384	1.0000	.2566
CASTLIFE	-.3574	.	.4427	.2886	.2566	1.0000
CASTWORK	-.4644	.	.3580	.3884	.3390	.8972**
CASTHOME	-.3186	.	.5773	.3680	.2276	.7946**
CASTSOC	-.1354	.	.1827	-.0569	.3877	.5350
PERNOS	.1634	.	.1599	.4318	.5335	.1178
PERORGCH	.0269	.	.4617	.0267	.3101	.2097
POPS	-.2119	.	.4797	.3458	.0359	.5793
PERRESP	.2364	.	-.2999	-.2890	-.1072	-.0007
PERCONCR	.2443	.	-.2503	-.1843	-.2699	-.0124
EPI	-.0199	.	.3988	.0825	.2147	.5824

N of cases: 14 1-tailed Signif: * - .01 ** - .001

" . " is printed if a coefficient cannot be computed

Correlations:	CASTWORK	CASTHOME	CASTSOC	PERNOS	PERORGCH	POPS
SEX	-.4644	-.3186	-.1354	.1634	.0269	-.2119
JOBDESCR	.	.	.	.	.	.
AGE	.3580	.5773	.1827	.1599	.4617	.4797
TCHEXPER	.3884	.3680	-.0569	.4318	.0267	.3458
LOSIP	.3390	.2276	.3877	.5335	.3101	.0359
CASTLIFE	.8972**	.7946**	.5350	.1178	.2097	.5793
CASTWORK	1.0000	.5951	.4378	.3588	.1834	.3700
CASTHOME	.5951	1.0000	.4874	-.0354	.1654	.6943*
CASTSOC	.4378	.4874	1.0000	.0814	.0278	-.0012
PERNOS	.3588	-.0354	.0814	1.0000	.4345	.0974
PERORGCH	.1834	.1654	.0278	.4345	1.0000	.4843
POPS	.3700	.6943*	-.0012	.0974	.4843	1.0000
PERRESP	-.0071	-.1622	.0307	.2969	.2232	.2374
PERCONCR	.0104	-.1847	.1083	.2841	.2071	.0655
EPI	.6014	.3710	.2025	.3036	.3587	.3314

N of cases: 14 1-tailed Signif: * - .01 ** - .001

" . " is printed if a coefficient cannot be computed

Correlations:	PERRESP	PERCONCR	EPI
SEX	.2364	.2443	-.0199
JOBDESCR	.	.	.
AGE	-.2999	-.2503	.3988
TCHEXPER	-.2890	-.1843	.0825
LOSIP	-.1072	-.2699	.2147
CASTLIFE	-.0007	-.0124	.5824
CASTWORK	-.0071	.0104	.6014
CASTHOME	-.1622	-.1847	.3710
CASTSOC	.0307	.1083	.2025
PERNOS	.2969	.2841	.3036
PERORGCH	.2232	.2071	.3587
POPS	.2374	.0655	.3314
PERRESP	1.0000	.6679*	.3681
PERCONCR	.6679*	1.0000	.2073
EPI	.3681	.2073	1.0000

N of cases: 14 1-tailed Signif: * - .01 ** - .001

" . " is printed if a coefficient cannot be computed

Correlation Matrix for Unpromoted Staff

Correlations:	SEX	JOBDESCR	AGE	TCHEXPER	LOSIP	CASTLIFE
SEX	1.0000	.	-.1045	-.1093	-.0539	.3115
JOBDESCR	.	1.0000	.	.	.	.
AGE	-.1045	.	1.0000	.7945**	.7497**	-.0736
TCHEXPER	-.1093	.	.7945**	1.0000	.7746**	-.3100
LOSIP	-.0539	.	.7497**	.7746**	1.0000	-.1509
CASTLIFE	.3115	.	-.0736	-.3100	-.1509	1.0000
CASTWORK	.3379	.	-.0576	-.2073	-.0606	.9104**
CASTHOME	.1897	.	-.0249	-.2957	-.1968	.9097**
CASTSOC	.0834	.	-.2265	-.4324	-.2901	.8571**
PERNOS	-.0448	.	.0256	.1029	.1953	-.1420
PERORGCH	-.1097	.	.1842	.2822	.1861	.1440
POPS	.0825	.	.0464	-.1515	.0158	.4366
PERRESP	-.0623	.	.2126	-.0195	.2459	.1532
PERCONCR	.2541	.	-.1184	-.3091	.0450	.1180
EPI	.2991	.	-.2825	-.3057	-.1810	.5866*

N of cases: 23 1-tailed Signif: * - .01 ** - .001

Correlations:	CASTWORK	CASTHOME	CASTSOC	PERNOS	PERORGCH	POPS
SEX	.3379	.1897	.0834	-.0448	-.1097	.0825
JOBDESCR	.	.	.	.	.	.
AGE	-.0576	-.0249	-.2265	.0256	.1842	.0464
TCHEXPER	-.2073	-.2957	-.4324	.1029	.2822	-.1515
LOSIP	-.0606	-.1968	-.2901	.1953	.1861	.0158
CASTLIFE	.9104**	.9097**	.8571**	-.1420	.1440	.4366
CASTWORK	1.0000	.7171**	.6600**	-.0992	.1048	.3025
CASTHOME	.7171**	1.0000	.9165**	-.1629	.1532	.2755
CASTSOC	.6600**	.9165**	1.0000	-.1380	.0879	.3164
PERNOS	-.0992	-.1629	-.1380	1.0000	.1974	.0384
PERORGCH	.1048	.1532	.0879	.1974	1.0000	.3318
POPS	.3025	.2755	.3164	.0384	.3318	1.0000
PERRESP	.0789	.2283	.2120	-.0679	.3822	.1578
PERCONCR	.1345	.0593	.1631	.1581	.1921	.1904
EPI	.5561*	.5887*	.6037*	.2419	.1744	.1112

N of cases: 23 1-tailed Signif: * - .01 ** - .001

Correlations:	PERRESP	PERCONCR	EPI
SEX	-.0623	.2541	.2991
JOBDESCR	.	.	.
AGE	.2126	-.1184	-.2825
TCHEXPER	-.0195	-.3091	-.3057
LOSIP	.2459	.0450	-.1810
CASTLIFE	.1532	.1180	.5866*
CASTWORK	.0789	.1345	.5561*
CASTHOME	.2283	.0593	.5887*
CASTSOC	.2120	.1631	.6037*
PERNOS	-.0679	.1581	.2419
PERORGCH	.3822	.1921	.1744
POPS	.1578	.1904	.1112
PERRESP	1.0000	.6788**	.0808
PERCONCR	.6788**	1.0000	.1984
EPI	.0808	.1984	1.0000

N of cases: 23 1-tailed Signif: * - .01 ** - .001

" . " is printed if a coefficient cannot be computed

APPENDIX

The Relationship Between Stress Variables and Dimensions

of the School Organisational Climate

APPENDIX 10

Department of Professional & Curriculum Support Studies
Specific Learning Difficulties Project

1st May 1992

Mr Angus McKay
Depute Director
Property Support Services
Lothian Education Department
40 Torphichen Street
Edinburgh
EH3 8JJ.

Dear Mr McKay,

I am currently involved in some research, leading to a PhD, supervised by the Psychology Department at Glasgow University.

The title of the reseach is psychological stress in schools - the influence of organisational climate. I have conducted a number of pilot studies over the previous two years and am now in a position to administer further questionnaires focusing on aspects of stress and organisational climate. It is hoped that one of the outcomes from the research will be an in-service package on school organisation and teacher stress.

I am, therefore, requesting your consideration that I may be able to administer the questionnaires in some Lothian schools. Ideally a mix of primary and secondary would be preferable, but I would be grateful for any advice and assistance in this matter.

I would be pleased to discuss this with you further should you require more details.

I look forward to hearing from you.

Yours sincerely,

Gavin Reid
Project Coordinator.

APPENDIX II

Department of Professional & Curriculum Support Studies
Specific Learning Difficulties Project

26th May 1992

Mrs Reid
Lothian Region Education Department
Property and Support Administration
40 Torphichen Street
Edinburgh
EH3 8JJ.

Dear Mrs Reid,

re: Research Questionnaire

Further to my letter to Mr Mackay of 1st May 1992, please find enclosed a brief outline of the research and a copy of the questionnaire. I would be pleased to discuss this with you and look forward to hearing from you.

Yours sincerely,

Gavin Reid
Project Coordinator

APPENDIX 12

LOTHIAN REGIONAL COUNCIL

EDUCATION

Director W. D. C. Semple,
40 Torphichen Street,
Edinburgh EH3 8JJ
Telephone 031-229 9166

Our reference PS/A/55/2/0552F (MOR)

Your reference

Date 18.6.92

OAKLANDS SCHOOL
BELLSQUARRY P.S.
CRAIGMUIR P.S.
GREENMOUNT P.S.
PRESTON STREET P.S.
WINDYKNOWE P.S.
TYNECASTLE H.S.
MUSSELBURGH GRAMMAR

Dear HEAD TEACHER

TITLE OF RESEARCH: PSYCHOLOGICAL STRESS IN SCHOOLS
APPLICANT: MR. GAVIN REID

The Research Evaluation Committee has considered and approved a request for research facilities from the above named.

It has been indicated that yours is one of the establishments proposed for the project and the researcher has now been asked to contact you directly.

I hope that you will find it possible to co-operate in this request, but I should add that this is subject to your agreement that the project is possible within the operational requirements of your establishment.

Yours sincerely

Chairman
Research Evaluation Committee

If telephoning please ask for Mrs Reid Ext: 2175

All communications to be addressed to the Director

LOTHIAN REGIONAL COUNCIL

EDUCATION

Director W D C Semple CBE
40 Torphichen Street,
Edinburgh EH3 8JJ
Direct Dial: 031-473175
Telephone (Switchboard): 031-229 9166
Fax: 031-229 0059

Our reference PS/A/55/2/702/0974g

Your reference

Date 16 June 1992

Mr Gavin Reid
Project Co-ordinator
Moray House Institute of Education
Heriot Watt University
Department of Professional Curriculum Support Studies
Holyrood Campus
Holyrood Road
EDINBURGH EH8 8AQ

Dear Mr Reid

PSYCHOLOGICAL STRESS IN SCHOOLS

With reference to your letters of 1 and 26 May 1992 the Research Evaluation Committee has considered your research request on the above subject and have agreed that the research project may proceed.

In considering the research proposal the Committee:

(i) asked that in the questionnaire you should explain what is meant by the term "half shift";

(ii) noted that Questions 274 and 275 appear to be duplicated; as do questions 324 and 325.

The Research Evaluation Committee have stressed that when teachers are approached their agreement to participate in the questionnaire must be on a voluntary basis.

Listed below are the schools which have been suggested for your research: -

Head Teacher	School	Address	Tel No
Mrs S Harland	Oaklands Special School	Broomhouse Crescent EDINBURGH EH11 3UB	031 455 7311
Miss C Gordon	Bellsquarry Primary School	52 Calder Road Bellsquarry LIVINGSTON EH54 9AD	5 410777
Mr	Craigmuir Primary School	West Pilton Park EDINBURGH EH4 4ET	031 332 6666

If telephoning please ask for Mrs Reid

All communications to be addressed to the Director

Head Teacher	School	Address	Tel No
Mr P Deponio	Gracemount Primary School	Lasswade Road EDINBURGH EH16 6UA	031 664 2331
Mr J Burns	Preston Street Primary School	Dalkeith Road EDINBURGH EH16 5BR	031 667 4208
Mrs J Adam	Windyknowe Primary School	Windyknowe Crescent BATHGATE EH48 2BT	52083
Mr M Hay	Tynecastle High School	McLeod Street EDINBURGH EH11 2NJ	031 337 3488
Mr T Christie	Musselburgh Grammar School	86 Inveresk Road MUSSELBURGH EH21 7BA	031 665 4278/9

Head Teachers will be notified of your intentions, but please note that, the final decision to participate lies with the Head Teacher.

One or two members of staff have expressed an interest in your research and wondered if it would be possible for you to meet them in the autumn at a time to be arranged by you; the contact is Mr Philip Brown, Research and Information Officer (ext 2117).

When your research has been completed the Research Evaluation Committee would be grateful if they could receive a copy (or summary) of your findings.

Yours sincerely

Chairman
Research Evaluation Committee

APPENDIX 1B

Department of Professional & Curriculum Support Studies
Specific Learning Difficulties Project

4th September 1992

Mr Philip Brown
Research and Information Officer
Research Evaluation Committee
Lothian Region
40 Torphichen Street
Edinburgh
EH3 8JJ.

Dear Mr Brown,

re: Psychological Stress in Schools.

I asked the Research Evaluation Committee to support the research project I am conducting as part of my Ph.D at Glasgow University. The subsequent reply (16th June 1992) indicated support for the research proposal and supplied a list of schools I should contact.

I have now been in touch with the schools and the headteachers have all agreed to cooperate with the research, and the questionnaires have been distributed to staff. It is hoped they will be returned by 1st October 1992.

I note in the reply from the Research Evaluation Committee that you indicated some interest in the proposals and I would be pleased to discuss this further with you at your convenience.

I look forward to hearing from you.

Yours sincerely,

Gavin Reid
Project Coordinator

APPENDIX 15

51 Comely Bank Avenue
Edinburgh
EH4 ES

23rd March 1993

Mr Peter Roberts
Research and Information Education Department
40 Torphichen Street
Edinburgh
EH3 8JJ.

Dear Peter,

re: Psychological Stress in Schools

Following our conversation at the beginning of last session, I have now completed the first phase of my research into stress and organisational factors in schools.

From the list which was presented I focused on six schools. I omitted the two secondary schools because of low response rate. The response rate in the other schools was between 80-100%.

I have enclosed the Discussion and Conclusion part of this chapter of my dissertation. You will note it provides strong evidence for organisational climate being an influential aspect of stress in schools.

For my next phase I will be selecting three of the schools from this study and hope to do three different 'treatment' studies. One with individual teachers, one with group and one control. Before then I have some further data analyses to do to help in the selection of the schools and the development of the treatment programme.

I will be pleased to discuss this further with you should you wish to do so.

Thanks for your help.

Yours sincerely,

Gavin Reid.

cc: Mr Philip Brown, Research and Information Officer.

Appendix 16

Third Floor
40 Torphichen St.
Edinburgh
EH3 8JJ
26/3/93

Dear Gavin,

Thank you for your two chapters of your research. They provide the evidence which we suspected and I found them very interesting. It is a pity about the secondary schools but perhaps they are feeling over burdened with making responses not only to research projects but also with high level of change and the reporting that goes with these changes.

I feel that it is the primary schools who have been neglected in the past but who are now seen as a major area of concern with developments like the 5-14 programme and language developments.

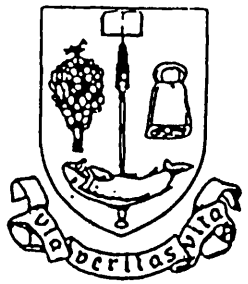
News from this end is that the proposals for a Support Advice and Counselling Unit to be established, on a pilot basis, have been accepted by the JCG. This means it only requires rubber stamping by the Education Committee to achieve the go-ahead. The time scale is for some sort of service to be available in the Autumn. The reason for my tentativeness is that it must be developed through the availability of staff for secondment. There is no budget with the present cutbacks and all developments must from within existing resources.This runs the danger of setting up a service which is of insufficient quality to gain street credibility.

During May and June I shall have to tackle the staffing issue along with the publicity and ground rules for making the service available. I will have my hands full. I have my misgivings with no budget, but encourage myself with how far we have come in the last six months.

I look forward to hearing how things progress with your research.

With best wishes.

Peter Roberts.



GLASGOW UNIVERSITY

"WORK COPING RESEARCH"

PLEASE READ THE INSTRUCTIONS ON EACH PAGE CAREFULLY. ANSWER THE QUESTIONS AS QUICKLY AS POSSIBLE AND WITHOUT CONSULTING WITH ANYONE ELSE.

PLEASE BE ABSOLUTELY H ONEST. ALL RESPONSES WILL REMAIN TOTALLY ANONYMOUS AND CANNOT BE TRACED BACK TO YOU. FOR THIS RESEARCH TO HAVE ANY VALUE IT IS VITAL THAT YOUR ANSWERS BE TRUTHFUL.

TOTAL ANONYMITY IS ENSURED

PLEASE TICK APPROPRIATE BOXES

Male	☐	Female	☐
Class Teacher	☐	Support Teacher	☐
Principal Teacher	☐	School Management	☐

AGE:

20-30 years ☐ 30-40 years ☐ 40-50 years ☐ 50+ years ☐

TOTAL EXPERIENCE AS TEACHER:

Less 2 year ☐ 2-5 year ☐ 5-10 year ☐ 10-15 year ☐ 15-20 year ☐ 20 years + ☐

LENGTH OF SERVICE IN THIS POST:

1-2 years ☐ 2-4 years ☐ 4-6 years ☐ 6-8 years ☐ 8-10 years ☐ 10-12 years ☐ 12 years + ☐

PLEASE READ THE INSTRUCTIONS ON EACH PAGE CAREFULLY. ANSWER AS TRUTHFULLY AND QUICKLY AS YOU CAN. PLEASE BE ABSOLUTELY HONEST. THIS IS COMPLETELY ANONYMOUS.

INDICATE HOW YOU COPE WITH SITUATIONS AT WORK BY CIRCLING THE NUMBER IN THE 10-POINT SCALE WHICH APPLIES TO YOU THE MOST.

AT WORK:

1. I tend to be indecisive — disagree strongly / agree strongly — 1 2 3 4 5 6 7 8 9 10

2. I find it difficult to focus and direct my thoughts — never / frequently — 1 2 3 4 5 6 7 8 9 10

3. At the moment I'm upset by non-work pressures (i.e.family etc) — disagree strongly / agree strongly — 1 2 3 4 5 6 7 8 9 10

4. Usually I'm able to concentrate — disagree strongly / agree strongly — 1 2 3 4 5 6 7 8 9 10

5. Mostly, I think I'm able to make correct decisions — disagree strongly / agree strongly — 1 2 3 4 5 6 7 8 9 10

6. I can usually think clearly — disagree strongly / agree strongly — 1 2 3 4 5 6 7 8 9 10

7. Various demands which confront me, I find confusing — never / frequently — 1 2 3 4 5 6 7 8 9 10

8. I find it easy to direct and maintain my attention — disagree strongly / agree strongly — 1 2 3 4 5 6 7 8 9 10

9. I can easily make up my mind what to do. — disagree strongly / agree strongly — 1 2 3 4 5 6 7 8 9 10

10. I can concentrate well for long periods — not at all / definitely yes — 1 2 3 4 5 6 7 8 9 10

11 I have problems in both attending and concentrating — not at all / definitely yes — 1 2 3 4 5 6 7 8 9 10

12. Usually I have difficulty in sorting out ideas — disagree strongly / agree strongly — 1 2 3 4 5 6 7 8 9 10

13. I experience conflict between job demands and home responsibilities — never / frequently — 1 2 3 4 5 6 7 8 9 10

PLEASE CIRCLE THE APPROPRIATE NUMBER ON THE 10-POINT SCALE THAT YOU FEEL APPLIES TO YOU AT WORK

	disagree totally / agree totally
14. I think I get enough good support from others	1 2 3 4 5 6 7 8 9 10
15. I think I can rely on helpful advice when needed	1 2 3 4 5 6 7 8 9 10
16. I think I don't have enough supportive back-up	1 2 3 4 5 6 7 8 9 10
17. I think I have to "go it alone" with insufficient assistance.	1 2 3 4 5 6 7 8 9 10

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS. THANK YOU.

PLEASE TURN OVER.

PLEASE MARK, IN THE SQUARE PROVIDED, HOW FREQUENT, HOW ANNOYING AND THE DURATION OF EACH OF THE LISTED COMPLAINTS. THIS IS COMPLETELY ANONYMOUS.

Frequency		Annoyance	
Once a day	6	Extremely Annoying	4
Once a week	5	Fairly annoying	3
Once a month	3	A little annoying	2
Once a year	2	Very little annoyance	1
Never	1		

Duration

If continuous or on and off all day, mark with an "X".

PLACE IN THE SQUARES THE NUMBER WHICH CORRESPONDS TO THE NEAREST LEVEL.

	Frequency (score) (1-6)	Annoyance (score) (1-4)	Duration (mark x) if applic
18. Exhaustion			
19. Getting tired quickly			
20 Muscle tension, especially neck and shoulders			
21 Back pains			
22. Muscle aches not due to exercise)			
23. Fatigue			
24. Headaches			
25. Physical weakness			
26. Effort to breathe or breathlessness			
27. Giddiness or dizziness			
28. Heart pounding or palpitations or pains			
29. Muscle twitches, blinking, trembling hands or face tics			
30. Itching, irritation or numbness of skin			
31. Stomach upset, wind, bowel aches or diarrhoea			
32 Sweating (not due to heat or exercise).			
33 Viral infections (nose, throat, sinus, chest)			
34 Voice disturbance (e.g. hoarse, clearing throat a lot)			

INDICATE HOW YOU FEEL WHEN FACED WITH YOUR DAILY WORK TASKS, BY CIRCLING THE RELEVANT NUMBER ON THE 10-POINT SCALE. PLEASE BE ABSOLUTELY HONEST, THIS IS COMPLETELY ANONYMOUS.

AT WORK:	disagree strongly									agree strongly
35. I tend to let things drift	1	2	3	4	5	6	7	8	9	10
36. I find it difficult to feel motivated	1	2	3	4	5	6	7	8	9	10
37. I like to get on with doing things	1	2	3	4	5	6	7	8	9	10
38. I take it easy	1	2	3	4	5	6	7	8	9	10
39. I just can't be bothered	1	2	3	4	5	6	7	8	9	10
40. I feel like keeping at it when facing difficulties	1	2	3	4	5	6	7	8	9	10
41. I feel pretty well motivated	1	2	3	4	5	6	7	8	9	10
42. I make an effort to succeed	1	2	3	4	5	6	7	8	9	10

PLEASE TURN OVER

HOW MUCH RESPONSIBILITY DO YOU THINK THAT YOU PERSONALLY HAVE FOR THE FOLLOWING ITEMS. INDICATE BY CIRCLING THE RELEVANT NUMBER ON THE SCALE.

	Excessively Low									Extremely High
43. Personally responsible for requisitioning of materials and equipment	1	2	3	4	5	6	7	8	9	10
44.Personally responsible for implementing Curriculum Development	1	2	3	4	5	6	7	8	9	10
45. Personally responsible for well-being of colleagues	1	2	3	4	5	6	7	8	9	10
46. Personally responsible for maintaining good social relationships between colleagues	1	2	3	4	5	6	7	8	9	10
47 Personally responsible for pupil standards of behaviour	1	2	3	4	5	6	7	8	9	10
48.Personally responsible for dealing with financial matters at work	1	2	3	4	5	6	7	8	9	10
49.Personally responsible for ensuring teaching standards	1	2	3	4	5	6	7	8	9	10
50.Personally responsible for obtaining satisfactory exam results	1	2	3	4	5	6	7	8	9	10
51.Personally responsible for delegation of work	1	2	3	4	5	6	7	8	9	10

PEOPLE USE SELF-RATING SCALES DIFFERENTLY. HOW MUCH OF A 10-POINT SCALE DO YOU USE? THESE QUESTIONS ARE TO FIND OUT

IMAGINE A SITUATION AT WORK, YOUR HOME OR IN YOUR SOCIAL LIFE WHERE IT IS VERY IMPORTANT TO YOU TO GET ON WITH A JOB. THERE ARE HASSLES TO COPE WITH AND LACK OF NECESSARY SUPPORT. i.e. THIS IS A MAXIMUM STRESS SITUATION FOR YOU.

INDICATE WHAT YOU WOULD EXPERIENCE BY CIRCLING THE APPROPRIATE NUMBER.

	totally disagree					mid point				totally agree
52 Upset.	1	2	3	4	5	6	7	8	9	10
53. Difficulty in making decisions	1	2	3	4	5	6	7	8	9	10
54. Concentration problems	1	2	3	4	5	6	7	8	9	10
55. Difficulty in feeling motivated	1	2	3	4	5	6	7	8	9	10
56. Feeling exhausted, aches, pains and other physical symptoms.	1	2	3	4	5	6	7	8	9	10

NOW:-

IMAGINE A RELAXED TIME WHEN EVERYTHING IS GOING WELL FOR YOU. INDICATE WHAT YOU WOULD EXPERIENCE BY TICKING THE APPROPRIATE NUMBER AGAINST THE ABOVE QUESTIONS.

THANK YOU.

PLEASE COMPLETE AS QUICKLY AS POSSIBLE USING THE 10 POINT EQUAL INTERVAL SCALE. CIRCLE THE RELEVANT FIGURE.

		a) Extent to which you think these needs are important Not at all Max	b) Extent to which these needs are satisfied Not at all Max
57	Need for sufficient amenities (eg toilets)	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
58	Need for job variety	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
59	Need for sufficient heating	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
60	Need for recog-nition of effort	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
61	Need to exper- ience interesting and mentally taxing jobs	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
62	Need to feel needed	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
63	Need for satisfactory safety and safety equipment	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
64	Need to feel I have done something worthwile	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
65	Need for sufficient breaks	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
66	Need to feel my work is important	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
67	Need to be treated like an individual	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
68	Need for better communication with management	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
69	Need to expand job skills	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
70	Need for pleasant environment	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
71	Need for promo-tion opportunities	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
72	Need to feel in control of job and not other way around	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
73	Need to be kept busy	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
74	Need for better understanding from management	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
75	Need to see that my work is important to the end product	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
76	Need for further training	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
77	Need for incentives	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
78	Need for quiet	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
79	Need for ventilation	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
80	Need for lighting	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
81	Need for windows	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
82	Need for social contact	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
83	Need for stimulation (eg Music)	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
84	Need for movement/ physical exercise	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
85	Other needs (please list):	_____	

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS.
THANK YOU

PLEASE TURN OVER

PLEASE COMPLETE AS QUICKLY AS POSSIBLE USING THE 10 POINT EQUAL INTERVAL SCALE. CIRCLE THE RELEVANT FIGURE.

		a) Extent to which you think these needs are important	b) Extent to which these needs are satisfied
		Not at all Max	Not at all Max
86	Need to have relevant information to deal with situations.	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
87	Need to feel I have done something worthwhile.	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
88	Need to explore things and exercise curiosity.	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
89	Need to have a good control over situations.	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
90	Need to be consulted before decisions are made	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
91	Need for encouragement from management	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
92	Need for recognition of accomplishments	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
93	Need to have a clear idea of role	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
94	Need to have good relations with colleagues	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
95	Need to have good relations with management	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10

		a) Extent to which you think these needs are important	b) Extent to which these needs are satisfied
		Not at all Max	Not at all Max
96	Need to be adequately rewarded financially	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
97	Need to be able to enjoy social activities with colleagues	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
98	Need to be able to switch off? From school tasks when not working	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
99	Need to have sufficient time for administration	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
100	Need to have sufficient time for curriculum development	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10
101	Need to be aware of parental support	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS THANK YOU

PLEASE TURN OVER

MAKE A GENERAL ASSESSMENT OF HOW YOU GENERALLY FEEL EMOTIONALLY
AT WORK BY CIRCLING THE MOST APPROPRIATE NUMBER IN THE 10-POINT SCALE.
THIS IS ENTIRELY ANONYMOUS

		LOW									HIGH
		1	2	3	4	5	6	7	8	9	10
102	I feel depressed	1	2	3	4	5	6	7	8	9	10
103	I feel agitated	1	2	3	4	5	6	7	8	9	10
104	I feel upset	1	2	3	4	5	6	7	8	9	10
105	I feel "not happy"	1	2	3	4	5	6	7	8	9	10
106	I feel distraught	1	2	3	4	5	6	7	8	9	10
107	I feel uneasy	1	2	3	4	5	6	7	8	9	10
108	I feel full of anguish	1	2	3	4	5	6	7	8	9	10
109	I feel "not fine"	1	2	3	4	5	6	7	8	9	10
110	I feel distressed	1	2	3	4	5	6	7	8	9	10
111	I feel uptight	1	2	3	4	5	6	7	8	9	10

PLEASE CHECK THAT YOU HAVE

ANSWERED ALL THE QUESTIONS

THANK YOU

PLEASE TURN OVER

PLEASE TICK THE ONE WHICH MOST APPLIES TO YOU.

		YES	NO
112	Do you like plenty of excitement and bustle around you?	☐	☐
113	Have you often got a restless feeling that you want something but do not know what?	☐	☐
114	Do you nearly always have a "ready answer" when people talk to you?	☐	☐
115	Do you sometimes feel happy, sometimes sad, without any real reason?	☐	☐
116	Do you usually stay in the background at parties and "get-togethers"?	☐	☐
117	As a child, did you always do as you were told immediately and without grumbling?	☐	☐
118	Do you sometimes sulk?	☐	☐
119	When you are drawn into a quarrel, do you prefer to "have it out" to being silent, hoping things will blow over?	☐	☐
120	Are you moody?	☐	☐
121	Do you like mixing with people?	☐	☐
122	Have you often lost sleep over your worries?	☐	☐
123	Do you sometimes get cross?	☐	☐
124	Would you call yourself happy-go-lucky?	☐	☐
125	Do you often make up your mind too late?	☐	☐
126	Do you like working alone?	☐	☐
127	Have you often felt listless and tired for no good reason?	☐	☐
128	Are you rather lively?	☐	☐
129	Do you sometimes laugh at a dirty joke?	☐	☐
130	Do you often feel "fed-up"?	☐	☐
131	Do you feel uncomfortable in anything but everyday clothes?	☐	☐
132	Does your mind often wander when you are trying to attend closely to something?	☐	☐

		YES	NO
133	Can you put your thoughts into words quickly?	☐	☐
134	Are you often "lost in thought"?	☐	☐
135	Are you completely free from prejudices of any kind?	☐	☐
136	Do you like practical jokes?	☐	☐
137	Do you often think of your past?	☐	☐
138	Do you very much like good food?	☐	☐
139	When you get annoyed, do you need someone friendly to talk to about it?	☐	☐
140	Do you mind selling things or asking people for money for some good cause?	☐	☐
141	Do you sometimes boast a little?	☐	☐
142	Are you touchy about some things?	☐	☐
143	Would you rather be at home on your own than go to a boring party?	☐	☐
144	Do you sometimes get so restless that you cannot sit long in a chair?	☐	☐
145	Do you like planning things carefully, well ahead of time?	☐	☐
146	Do you have dizzy turns?	☐	☐
147	Do you always answer a personal letter as soon as you can after you have read it?	☐	☐
148	Can you usually do things better by figuring them out alone than by talking to others about it?	☐	☐

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS. THANK YOU

PLEASE TURN OVER

PLEASE TICK THE ONE WHICH MOST APPLIES TO YOU.

		YES	NO
149	Do you ever get short of breath without having done any heavy work?	☐	☐
150	Are you an easy-going person, not generally bothered about having every-thing "just-so"?	☐	☐
151	Do you suffer from "nerves"?	☐	☐
152	Would you rather plan things than do things?	☐	☐
153	Do you sometimes put off until tomorrow what you ought to do today?	☐	☐
154	Do you get nervous in places like lifts, trains or tunnels?	☐	☐
155	When you make new friends, is it usually you who makes the first move, or does the inviting?	☐	☐
156	Do you get very bad headaches?	☐	☐
157	Do you generally feel that things will sort themselves out and come right in the end somehow?	☐	☐
158	Do you find it hard to fall asleep at bedtime?	☐	☐
159	have you sometimes told lies in your life?	☐	☐
160	Do you sometimes say the first thing that comes into your head?	☐	☐
161	Do you worry too long after an embarrassing experience?	☐	☐
162	Do you usually keep "yourself to yourself" except with very close friends?	☐	☐
163	Do you often get into a jam because you do things without thinking?	☐	☐
164	Do you like cracking jokes and telling funny stories to your friends?	☐	☐
165	Would you rather win than lose a game?	☐	☐
166	Do you often feel self-conscious when you are with superiors?	☐	☐
167	When the odds are against you, do you still usually think it worth taking a chance?	☐	☐
168	Do you often get "butterflies in your tummy" before an important occasion?	☐	☐

54

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS. THANK YOU

PLEASE TURN OVER

INDICATE BY CIRCLING THE APPROPRIATE NUMBER ON THE 10-POINT SCALE IF ANY OF THE FOLLOWING APPLY TO YOU AT WORK. PLEASE BE ENTIRELY HONEST. THIS WILL BE COMPLETELY ANONYMOUS.

		totally disagree									totally agree
169	My work gets disorganised	1	2	3	4	5	6	7	8	9	10
170.	I react slowly	1	2	3	4	5	6	7	8	9	10
171	I work quickly	1	2	3	4	5	6	7	8	9	10
172	I avoid communication with management	1	2	3	4	5	6	7	8	9	10
173	I work carefully	1	2	3	4	5	6	7	8	9	10
174	I cut corners to get things done	1	2	3	4	5	6	7	8	9	10
175	I tackle every problem as it arises	1	2	3	4	5	6	7	8	9	10
176	My work is consistent and reliable	1	2	3	4	5	6	7	8	9	10
177	I only do enough work to get by	1	2	3	4	5	6	7	8	9	10
178	My work standard could be better	1	2	3	4	5	6	7	8	9	10

PLEASE TICK THE APPROPRIATE BOX BELOW IF ANY OF THE FOLLOWING APPLY TO YOU AT WORK. BEAR IN MIND THAT THIS IS COMPLETELY ANONYMOUS.

		More than once a day	Once daily	More than once a week	Once a month	6 mthly	Yearly	Never
179	I make mistakes							
180	I stop work during the work period							
181	I'm late for work							
182	I take up other's time talking							
183	I forget to do things							
184	I feel like staying off work at times when I could go in	xxxxx xxxxx xxxxx xxxxx						
185	I sometimes have minor accidents							
186	I take time off	xxxxx						

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS. THANK YOU.

PLEASE TURN OVER

A number of statements are listed below which people have used to describe their interactions with others. Read each statement and then circle the appropriate number to indicate how **often** you generally react in the manner described. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you **generally** react.

		Almost Never	Sometimes	Often	Almost Always
187	I try to do what is sensible and logical	1	2	3	4
188	I try to understand people and their behaviour	1	2	3	4
189	I try to behave reasonably in my relations with others.	1	2	3	4
190	I use intelligence and reason to overcome conflicts or disagreements with other people	1	2	3	4
191	When I am in a situation in which I strongly disagree with other people, I try not to show my emotions	1	2	3	4
192	If someone deeply hurts my feelings, I still try to treat them reasonably and to understand their behaviour	1	2	3	4
193	I try to understand other people even if I do not like them	1	2	3	4
194	I succeed in avoiding arguments with others by using reason and logic (often contrary to my feelings)	1	2	3	4
195	If someone acts against my needs and desires, I still try to understand him/her	1	2	3	4
196	My behaviour in most life situations is logical and reasonable, and not influenced by my emotions	1	2	3	4
197	If someone deeply hurts my feelings, I may attack them or respond purely emotionally	1	2	3	4
198	My use of reason and logic prevents me from attacking others, even if there are good reasons for doing so.	1	2	3	4

PLEASE CHECK THAT YOU ANSWERED ALL THE QUESTIONS. THANK YOU

PLEASE TURN OVER

PLEASE RATE THE EXTENT TO WHICH THE FOLLOWING ORGANISATIONAL CHANGES WITHIN THE EDUCATION SYSTEM HAVE AFFECTED YOU (AS A TEACHER)

		Totally unaffected									strongly affected
216	Increase in administrative demands	1	2	3	4	5	6	7	8	9	10
217	Imposed Curricular changes	1	2	3	4	5	6	7	8	9	10
218	Inclusion of broad ability range in class	1	2	3	4	5	6	7	8	9	10
219	Integration of special need pupils in classes	1	2	3	4	5	6	7	8	9	10
220	Increase in time occupied by meetings with other staff	1	2	3	4	5	6	7	8	9	10
221	Increase in time occupied by meeting with outside agencies	1	2	3	4	5	6	7	8	9	10
222	Increase parental demands operating in schools concerning:										
	a) school organisation and curriculum	1	2	3	4	5	6	7	8	9	10
	b) individual childs' progress	1	2	3	4	5	6	7	8	9	10
223	Job security in relation to compulsory transfers	1	2	3	4	5	6	7	8	9	10

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS

THANK YOU

PLEASE TURN OVER

PLEASE PUT A TICK THROUGH THE ONE THAT MOST REPRESENTS YOUR VIEW.

T -- TRUE
F - FALSE e.g. T F or T F

		TRUE	FALSE
224	Management here are always addressed by their surname	T	F
225	Criticism of policies and practices is encouraged	T	F
226	It's important here to be in the right group	T	F
227	Policy, goals, and objectives are carefully explained to everyone	T	F
228	Errors and failures are talked about freely so that others may learn from them	T	F
229	People here express their feelings openly	T	F
230	The ability to plan ahead is highly valued here	T	F
231	Applications of educational research is encouraged	T	F
232	People here spend a great deal of time thinking about and discussing complex problems	T	F
233	Policy matters often provoke widespread discussions that are both earnest and lively	T	F
234	People will work hard here, even if they realise that someone else may get the credit	T	F
235	It is fairly easy to keep up here without working too hard	T	F
236	"Lending a helping hand" could very well be the motto of this place.	T	F
237	Receptions of social affairs are seldom held here.	T	F
238	People here are always trying to manipulate the activities of others for their own advantage.	T	F
239	People are expected to report violations of rules and regulations.	T	F

		TRUE T	FALSE F
240	Work is well organised and progresses systematically from week to week.	T	F
241	People take care of their personal appearance.	T	F
242	Policy changes occur slowly here and only after considerable deliberation.	T	F
243	The school's activities are often featured in the newspapers.	T	F
244	It's necessary to be polite under all circumstances to stay out of trouble here.	T	F
245	When people disagree with a decision, they work to get it changed.	T	F
246	Personality and pull are more important than competence in getting on here.	T	F
247	Criticism or advice from a superior is usually welcomed.	T	F
248	Discussions get quite heated, with a lot of display of feeling.	T	F
249	Few people here have time to think ahead.	T	F
250	A discussion about the latest educational developments would not be uncommon here.	T	F
251	Few people here would be interested in attending a lecture by an outstanding educationalist.	T	F

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS. THANK YOU

PLEASE TURN OVER

PLEASE PUT A TICK THROUGH THE ONE THAT MOST REPRESENTS YOUR VIEW.

T - TRUE
F - FALSE e.g. T F or T F

		TRUE	FALSE
252	People here hope to achieve recognition and advancement.	T	F
253	People here can get so absorbed in their work they often lose all sense of time or personal comfort.	T	F
254	People here put a lot of energy into everything they do.	T	F
255	Most people here seem to be especially considerate of others.	T	F
256	Everyone here has a strong sense of being a member of a team	T	F
257	People can get into very heated arguments with one another, and be the best of friends next day.	T	F
258	Attendance is checked carefully.	T	F
259	Most activities here are planned carefully.	T	F
260	Good manners and making a good impression are important here.	T	F
261	Quick decisions and actions are not characteristic of this place	T	F
262	This place has a reputation for being indifferent to the needs of the wider community.	T	F
263	Senior management rarely refer to one another by their first names.	T	F
264	People here are not likely to accept managerial ineptitude without complaint or protest.	T	F
265	Social status is a necessary element for advancement or success here	T	F
266	Regulations are interpreted and enforced in an understanding manner	T	F
267	The expression of strong personal belief is pretty rare here.	T	F
268	People here do not try to hide their feelings.	T	F
269	Most people here are concerned with the present rather than the future.	T	F
270	Few people would be interested in attending a lecture by aa well known speaker	T	F
271	Few people here are stimulated by intellectual activities or problems.	T	F
272	People here are provided with opportunities to develop skills and talents in directing or coordinating the work of others.	T	F
273	Pressure of work is not accepted as an excuse for inferior performance.	T	F
274	There is so much to do here that people are always busy.	T	F

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS. THANK YOU

PLEASE TURN OVER

PLEASE PUT A TICK THROUGH THE ONE THAT MOST REPRESENTS YOUR VIEW.

T - TRUE
F - FALSE e.g. T F or T F

		TRUE	FALSE
275	People find others eager to help show them the ropes.	T	F
276	There is a lot of group spirit.	T	F
277	Almost anyone is likely to be blamed, even those who had little to do with it, if something happens to go wrong.	T	F
278	People quickly learn what is done and not done here.	T	F
279	People get sufficient notice of policy decisions to be able to plan their own work accordingly.	T	F
280	Individuals who are untidy in their appearance are likely to have this brought to their attention.	T	F
281	Thinking of alternative ways in which problems might be solved or things done differently is discouraged here.	T	F
282	The activities of charities and social agencies are strongly supported.	T	F
283	The important people in this place expect others to show proper respect for them.	T	F
284	When people dislike policy they let it be known in no uncertain terms.	T	F
285	There are no favourites in this place - everyone gets treated alike.	T	F
286	There are few opportunities for informal conversation with senior management.	T	F
287	One of the values most stressed here is open-mindedness.	T	F
288	There are very few issues here which arouse much excitement or feeling.	T	F

		TRUE	FALSE
289	People here are encouraged to take a long-term view.	T	F
290	Few people in this school have any background in other areas.	T	F
291	Few people here are challenged by deep thinking.	T	F
292	There is plenty of scope and encouragement for individual creative activity.	T	F
293	People set high standards of achievement for themselves here.	T	F
294	People are always ready to stop work and have a break.	T	F
295	The underdog always gets sympathy here.	T	F
296	Social events get a lot of enthusiasm and support.	T	F
297	Personal rivalries are fairly common in this place.	T	F
298	Most people pay little attention to rules and regulations	T	F

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTION. THANK YOU

PLEASE TURN OVER

PLEASE PUT A TICK THROUGH THE ONE THAT MOST REPRESENTS YOUR VIEW

T - TRUE
F - FALSE e.g. T F or T F

		TRUE	FALSE
299	Work is checked to see if it is done properly and on time.	T	F
300	People are encouraged to dress for personal comfort rather than for appearance.New ideas are always being tried out here.	T	F
301	New ideas are always being tried out here	T	F
302	Service to the wider community is regarded as a major responsibility of this school.	T	F
303	People here are always looking for compliments.	T	F
304	People avoid direct clashes with senior management at all costs.	T	F
305	Anyone who knows the right people here can get a better break.	T	F
306	This school does not concern itself with the personal problems of the people who work here.	T	F
307	People here tend to be cautious and restrained.	T	F
308	Open displays of emotion have no place here.	T	F
309	People here often start projects without trying to decide in advance how they will develop, or where they may end.	T	F
310	A discussion about the latest educational innovations would not be uncommon here.	T	F
311	Most people here are well-read.	T	F
312	Good work is really recognised here.	T	F
313	The standards set here are not particularly hard to achieve.	T	F
314	No one takes his work too seriously here.	T	F
315	People often run errands or do other personal services for each other	T	F

		TRUE	FALSE
316	There are many opportunities for people to get together in planned social activities after hours.	T	F
317	A lot of people in this place walk around with a chip on their shoulder	T	F
318	People ask permission before deviating from common policies or practices	T	F
319	The flow of information downwards is smooth and efficient.	T	F
320	Proper social forms and manners are not particularly important here	T	F
321	.The latest educational ideas make few changes in the way this place is run.	T	F
322	It's easy to find people here to give talks to clubs and social groups	T	F
323	Senior management are frequently jealous of their authority.	T	F
324	Many people will not hesitate to give strong support to a project that senior management is opposed to	T	F
325	Everyone has the same opportunity to make good	T	F
326	Senior management have little tolerance for complaints and protests.	T	F

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS. THANK YOU.

PLEASE TURN OVER

PLEASE PUT A TICK THROUGH THE ONE THAT MOST REPRESENTS YOUR VIEW

T - TRUE
F - FALSE e.g. T F or T F

		TRUE	FALSE
327	People here speak out openly	T	F
328	When people dislike someone here they make no secret of it	T	F
329	Senior management is quite often offucpied with servious consideratins of basic goals and purposes.	T	F
330	Magazines about new developments in education and management techniques are read by many people who work here.	T	F
331	People here often get involved in long serious intellectual discussions	T	F
332	Not too many people want to become a member of the management team here.	T	F
333	People here follow the maxim "business before pleasure".	T	F
334	Having a good time comes first here	T	F
335	The people here are easily moved by dthe misfortune or distress of others	T	F
336	Everyone is helped to get acquainted.	T	F
337	There always seem to be a lot of little quarrels going on here.	T	F
338	Formal rules and regulations have a very important place here	T	F
339	There is no wasted time here; everything has been planned right to the minute	T	F
340	Most people dress and act pretty much alike.	T	F
341	Unusual or exciting plans are encouraged here.	T	F
342	Special events are given a great deal of publicity.	T	F
343	There is a lot of boot-licking here.	T	F
344	People who get pushed around here are expected to fight back.	T	F
345	As long as you are good at your job you'll get ahead here.	T	F

		TRUE	FALSE
346	Senior management will go out of their way to help you with your work.	T	F
347	Criticism is taken as a personal affront in this school.	T	F
348	People here tend to hid their deeper feelings from each other.	T	F
349	This school is satisfied to achieve short-range goals and objectives.	T	F
350	Senior management here are considered experts in their respective fields.	T	F
351	Senior management here are considered experts in their respective fields.	T	F
352	Most activities present a real personal challenge.	T	F
353	People are always very serious and purposeful about their work.	T	F
354	Day to day activities do not require a sustained or intensive effort.	T	F
355	People here are usually quick to help each other out.	T	F
356	It's easy to get a group together for games, outings, or other social activities.	T	F
357	People here are always trying to win an argument.	T	F
358	Procedures to be followed in case of fires and accidents are not prominently displayed.	T	F

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS. THANK YOU.

PLEASE TURN OVER

PLEASE PUT A TICK THROUGH THE ONE THAT MOST REPRESENTS YOUR VIEW

T - TRUE
F - FALSE e.g. T F or T F

		TRUE	FALSE
359	There is a specific place for everything and everyone here.	T	F
360	Looking and acting "right" is expected.	T	F
361	There are conventional ways of doing things here which are rarely changed.	T	F
362	Any form of publicity is frowned on here	T	F
363	There is a recognised group of people who receive special privileges.	T	F
364	People delight in challenging official policies.	T	F
365	If your face fits, you're all right here.	T	F
366	Senior management are prepared to listen to people as well as direct them.	T	F
367	People here feel free to express themselves impulsively.	T	F
368	People here can be wildly happy one minute and hopelessly depressed the next.	T	F
369	Failure to plan ahead is regarded as a very serious error here.	T	F
370	This school is research conscious.	T	F
371	Careful reasoning and clear logic are highly valued here.	T	F
372	People here generally look for novelty and variety.	T	F
373	People here feel they must really work hard because of the important nature of their work.	T	F
374	The successful performance of day to day duties is routine and undemanding	T	F
375	People have always put themselves first	T	F
376	People spend a great deal of time together socially.	T	F
377	Many people here seem to brood a lot, act moodily, and it is hard to make them out.	T	F
378	It is expected that there will be no deviation from established practices, no matter what the circumstances.	T	F
379	The quality of your work is rated or evaluated frequently.	T	F
380	People are always carefully dressed and neatly groomed.	T	F
381	Programmes here are quickly changed to meet new conditions.	T	F
382	Social issues are rarely discussed here.	T	F

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS.

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

APPENDIX 18

ANSWER SHEET T — TRUE F — FALSE Please put a tick through the one that represents your view Org. ....

e.g. ✓F or T✓ No. ....

Q. No. 1 ✓T F	2 ✓T F	3 T ✓F	4 ✓T F	5 ✓T F	6 T ✓F	7 ✓T F	8 ✓T F	9 ✓T F	10 ✓T F	11 ✓T F	12 T ✓F	13 ✓T F	14 T ✓F	15 ✓T F	16 ✓T F	17 ✓T F	18 ✓T F	19 T ✓F	20 ✓T F
Q. No. 21 ✓T F	22 ✓T F	23 T ✓F	24 ✓T F	25 ✓T F	26 T ✓F	27 T ✓F	28 ✓T F	29 T ✓F	30 ✓T F	31 ✓T F	32 ✓T F	33 ✓T F	34 ✓T F	35 T ✓F	36 ✓T F	37 ✓T F	38 ✓T F	39 T ✓F	40 T ✓F
Q. No. 41 ✓T F	42 ✓T F	43 T ✓F	44 ✓T F	45 T ✓F	46 T ✓F	47 T ✓F	48 T ✓F	49 T ✓F	50 ✓T F	51 ✓T F	52 ✓T F	53 ✓T F	54 ✓T F	55 ✓T F	56 ✓T F	57 ✓T F	58 ✓T F	59 T ✓F	60 ✓T F
Q. No. 61 ✓T F	62 ✓T F	63 ✓T F	64 T ✓F	65 ✓T F	66 ✓T F	67 ✓T F	68 T ✓F	69 T ✓F	70 ✓T F	71 ✓T F	72 T ✓F	73 ✓T F	74 ✓T F	75 ✓T F	76 T ✓F	77 ✓T F	78 T ✓F	79 ✓T F	80 ✓T F
Q. No. 81 ✓T F	82 T ✓F	83 T ✓F	84 T ✓F	85 T ✓F	86 ✓T F	87 T ✓F	88 ✓T F	89 ✓T F	90 ✓T F	91 T ✓F	92 T ✓F	93 ✓T F	94 ✓T F	95 ✓T F	96 ✓T F	97 ✓T F	98 T ✓F	99 T ✓F	100 ✓T F
Q. No. 101 ✓T F	102 ✓T F	103 ✓T F	104 T ✓F	105 ✓T F	106 T ✓F	107 ✓T F	108 ✓T F	109 ✓T F	110 T ✓F	111 ✓T F	112 T ✓F	113 ✓T F	114 ✓T F	115 ✓T F	116 ✓T F	117 ✓T F	118 ✓T F	119 ✓T F	120 ✓T F
Q. No. 121 ✓T F	122 ✓T F	123 ✓T F	124 ✓T F	125 T ✓F	126 ✓T F	127 T ✓F	128 ✓T F	129 T ✓F	130 ✓T F	131 ✓T F	132 T ✓F	133 ✓T F	134 ✓T F	135 ✓T F	136 T ✓F	137 ✓T F	138 ✓T F	139 T ✓F	140 T ✓F
Q. No. 141 ✓T F	142 ✓T F	143 T ✓F	144 ✓T F	145 ✓T F	146 T ✓F	147 ✓T F	148 ✓T F	149 ✓T F	150 ✓T F	151 ✓T F	152 T ✓F	153 T ✓F	154 ✓T F	155 ✓T F	156 ✓T F	157 ✓T F	158 ✓T F	159 ✓T F	160 T ✓F
...eaders ...sychological ...istance	...uestioning ...uthority	...alitarianism ...t recognition for merit)	...agement ...cern for ...ployee involvement	...n-mindedness	...motional control	...ture ...rientation	...entific ...chnical ...rientation	...tellectual ...rientation	...ob challenge	...sk ...rientation	...dustriousness	...ltruism	...ociability	...terpersonal ...ggression	...ules ...rientation	...dministrative ...fficiency	...nventionality	...eadiness ...innovate	...ommunity

...ems make up ...ch scale:

	PCI	SOC.SUP.	PYSOM	GEMOS	PERES	PERNOS	ERST	WRST2	WRST1	DEV.PERES
1	-39	4	35	28	52	35	30	15	-8	33
2	-31	14	31	17	35	36	13	25	-2	19
3	-41	15	24	29	88	37	12	24	-4	43
4	-45	12	26	25	52	28	11	29	-3	26
5	-5	14	23	36	33	34	11	13	-29	39
6	-16	7	37	32	48	38	33	19	-8	18
7	-32	9	33	22	49	38	24	23	-2	16
8	-20	12	28	25	20	33	18	20	-16	33
9	-34	18	29	28	59	23	13	15	-18	25
10	-40	13	27	28	70	26	18	13	-18	28
11	-11	0	41	0	30	52	27	30	3	26
12	-2	-8	31	-14	50	46	48	21	9	26
13	-18	7	42	24	58	48	30	25	1	24
14	-22	0	41	5	50	49	45	22	-3	16
15	-20	8	39	9	41	29	12	21	1	22
16	-22	-1	34	25	28	36	47	19	-9	40
17	14	-10	36	-2	36	48	47	23	-8	39
18	-18	0	39	10	42	30	23	27	6	28
19	6	7	53	11	47	45	57	24	-3	30
20	-22	10	26	17	83	26	25	30	2	38
21	-24	-8	49	9	62	31	21	23	-11	25
22	-34	10	18	24	42	37	24	16	0	29
23	-6	7	36	10	47	45	47	25	17	18
24	-33	12	29	27	54	27	20	19	16	34
25	-16	9	24	31	58	43	26	27	4	28
26	-32	7	31	34	71	24	19	29	1	35
27	-23	12	35	11	80	28	31	32	15	35
28	-31	0	21	-1	39	57	45	16	5	36
29	7	-7	32	3	61	41	20	21	19	28

	PCI	SOC.SUP.	PYSOM	GEMOS	PERES	PERNOS	ERST	WRST2	WRST1	DEV.PERES
30	-21	5	48	18	61	44	16	28	-8	30
31	-39	13	30	31	38	23	22	15	-9	23
32	6	3	40	0	31	47	63	32	21	29
33	-20	10	25	28	67	16	18	24	-8	41
34	-20	-2	19	20	41	36	49	20	-2	32
35	-53	-5	31	36	34	31	24	8	-32	35
36	-49	12	38	33	73	26	35	20	-22	33
37	-27	7	27	27	71	22	19	17	-11	42
38	-4	-6	53	11	67	49	50	14	1	38
39	-12	15	26	-1	38	60	70	21	18	36
40	-40	13	25	23	21	13	14	16	-24	42
41	-26	7	37	24	30	35	23	17	-18	36
42	-9	17	42	7	33	31	67	28	11	34
43	3	8	33	-2	79	39	25	32	11	43
44	-31	13	36	4	66	31	39	25	-9	36
45	-34	18	18	32	68	32	10	23	10	35
46	-37	11	30	36	40	54	22	32	0	28
47	-19	4	52	10	55	36	54	19	-5	35
48	-48	18	19	-1	44	19	10	13	1	30
49	-19	16	24	29	76	26	20	20	11	32
50	-8	-4	51	6	58	45	41	23	-5	19
51	-45	18	17	22	49	14	10	14	-14	11
52	-28	12	52	23	50	27	31	19	-8	25
53	-37	13	24	35	82	28	14	12	-15	37
54	-20	11	58	22	29	28	33	29	-12	39

	EMOT DEF	SELF MED	POG	BIOG	TM	AGE	EXPER.	SERV.	lpd	qa	eg	mcei	om
1	28	32	36	2	1	2	5	2	3	4	8	6	7
2	40	24	40	2	1	1	2	1	3	6	8	8	7
3	32	36	41	2	4	2	5	2	2	5	8	8	7
4	34	25	53	2	1	4	3	1	3	4	7	8	4
5	34	19	62	2	2	4	6	7	3	3	8	8	6
6	25	30	41	2	1	1	3	1	3	5	8	5	6
7	31	36	50	2	1	3	2	2	3	6	7	8	7
8	30	39	31	2	1	1	1	1	3	6	8	5	3
9	30	12	54	2	4	3	5	1	2	4	5	8	7
10	32	48	63	2	1	1	3	4	4	3	8	7	7
11	24	37	59	2	1	3	4	2	3	3	6	5	5
12	37	30	44	2	1	3	4	2	2	0	7	5	5
13	30	47	55	2	2	3	5	7	2	6	7	8	5
14	29	59	55	2	1	3	5	4	3	4	3	3	6
15	21	26	38	2	1	3	4	1	2	6	4	6	6
16	35	28	50	2	1	4	5	5	2	6	7	7	6
17	30	34	46	2	1	2	5	6	2	5	7	3	3
18	25	35	65	2	1	2	3	3	2	7	5	5	6
19	33	26	48	2	1	2	5	5	3	5	7	8	7
20	31	20	60	1	4	3	6	4	4	6	5	5	5
21	27	26	53	2	1	3	4	5	3	4	6	5	4
22	33	25	50	2	1	3	6	7	3	0	7	6	1
23	36	41	34	1	1	2	2	2	2	7	7	6	6
24	36	30	27	2	1	2	4	1	2	7	7	5	5
25	30	38	52	2	4	3	4	1	2	6	7	7	6
26	24	29	54	2	4	3	5	1	2	5	8	6	3
27	31	28	69	1	4	2	4	2	3	4	3	7	4
28	33	47	44	1	1	3	5	2	3	0	7	3	0
29	28	32	36	1	1	2	4	3	4	7	5	4	4

	EMOT DEF	SELF MED	POG	BIOG	TM	AGE	EXPER.	SERV.	lpd	qa	eg	mcei	om
30	27	52	32	2	1	2	3	3	3	4	5	5	3
31	30	34	29	2	2	1	3	3	4	3	5	5	5
32	23	22	23	2	1	3	4	1	3	3	6	6	3
33	40	32	16	2	1	3	3	2	3	3	8	7	2
34	25	22	32	2	1	1	3	3	5	1	7	4	6
35	43	27	10	2	2	3	1	1	3	4	8	7	5
36	39	38	56	2	4	3	6	2	1	4	8	5	5
37	31	45	54	2	1	4	6	6	2	2	7	8	7
38	29	34	38	2	1	3	5	5	4	3	8	4	3
39	31	35	31	2	2	2	1	1	5	6	4	3	2
40	34	35	26	2	2	3	5	1	4	5	7	8	5
41	35	24	54	2	1	2	4	4	2	3	2	5	5
42	39	23	38	2	1	1	1	1	4	3	5	5	4
43	32	20	61	2	4	3	6	7	2	6	8	6	6
44	30	48	45	2	1	1	2	1	1	5	3	8	7
45	36	29	57	2	3	4	6	2	2	4	7	8	6
46	32	33	44	2	1	3	5	4	3	4	1	5	5
47	32	17	61	2	1	4	6	1	1	3	4	6	5
48	37	47	49	2	1	4	6	7	5	3	8	7	6
49	43	23	58	2	1	4	6	7	2	3	8	8	7
50	28	28	40	2	1	1	1	1	5	1	7	6	1
51	33	45	37	2	4	3	6	1	2	3	7	7	7
52	27	49	50	2	1	3	6	7	6	3	7	8	6
53	38	25	55	2	4	4	6	6	5	4	8	8	6
54	32	35	56	2	1	2	3	1	5	3	8	8	4

	ec	fo	sto	io	jc	to	ind	alt	soc	ia	ro	ae	con	rti	com
1	1	5	6	8	7	7	8	7	6	1	5	6	7	7	7
2	1	6	8	8	8	4	7	8	5	1	4	6	3	7	6
3	3	6	5	7	8	6	6	7	5	1	4	7	7	7	6
4	4	6	4	4	4	6	5	6	2	0	3	3	3	6	6
5	3	6	6	6	6	4	6	5	6	1	3	6	4	6	6
6	2	4	3	4	4	7	8	7	5	0	4	4	4	2	5
7	4	6	4	5	6	7	8	7	6	1	4	3	4	7	6
8	5	2	4	5	3	5	8	7	6	0	3	4	7	7	4
9	2	5	7	7	6	8	8	6	5	0	5	8	6	5	8
10	2	7	6	8	8	6	8	6	7	0	6	7	5	7	6
11	4	4	3	2	4	5	6	8	6	1	4	1	7	4	5
12	7	4	3	4	2	5	8	4	5	0	4	1	4	1	4
13	2	5	6	7	7	5	7	8	4	1	3	3	5	8	5
14	2	6	5	3	2	3	8	5	4	2	6	4	2	5	6
15	2	4	6	4	4	5	8	5	8	0	3	3	4	6	3
16	4	6	6	7	7	4	8	6	7	1	5	6	4	6	7
17	2	3	6	4	2	5	5	5	5	0	4	3	5	5	3
18	2	2	5	5	4	7	8	7	5	0	5	3	3	7	4
19	3	5	8	7	7	5	6	7	6	1	6	5	3	7	7
20	4	6	5	7	5	8	6	8	6	0	5	3	4	5	7
21	2	5	4	6	6	7	8	7	5	3	6	4	3	6	4
22	8	5	4	4	5	2	8	4	3	0	2	3	6	8	4
23	2	5	5	6	5	2	5	8	7	1	3	4	2	6	7
24	4	5	6	6	4	6	6	8	7	1	3	3	4	5	5
25	1	5	6	5	6	4	8	2	5	1	5	1	4	5	4
26	3	4	4	6	5	4	8	8	7	0	4	6	3	6	5
27	4	2	2	4	6	4	4	5	5	3	4	8	6	3	4
28	8	4	2	4	4	5	7	6	5	1	5	2	4	3	4
29	4	2	3	4	2	6	5	5	5	3	3	1	2	5	7

	ec	fo	sto	io	jc	to	ind	alt	soc	ia	ro	ae	con	rti	com
30	3	3	3	3	3	5	8	6	4	2	6	3	4	6	3
31	2	5	6	6	5	4	5	7	1	4	5	4	5	6	5
32	5	3	0	5	6	7	5	3	1	6	5	5	3	5	5
33	6	4	6	4	4	6	7	7	4	2	3	4	1	7	6
34	1	5	3	6	4	6	4	8	5	3	6	4	6	7	4
35	2	5	6	6	5	0	8	6	1	6	6	1	3	6	4
36	4	4	5	5	5	7	6	4	3	2	4	2	2	3	4
37	7	3	4	3	5	3	6	6	6	2	8	5	2	6	3
38	4	6	3	5	4	5	7	4	4	3	5	2	2	6	5
39	3	3	3	1	3	5	5	7	3	5	6	2	6	4	1
40	1	3	3	3	6	3	6	4	5	1	6	5	5	3	4
41	2	3	3	2	5	4	6	7	5	1	3	3	4	3	5
42	1	3	4	4	5	4	6	5	8	4	3	4	3	5	6
43	2	2	5	6	6	2	5	8	8	1	4	0	4	5	7
44	1	2	6	7	6	6	6	8	8	1	2	1	1	7	5
45	1	4	7	6	6	7	6	7	6	1	6	6	2	6	7
46	1	2	2	5	5	2	4	5	6	4	2	0	0	6	5
47	4	2	6	3	5	4	4	8	6	5	3	0	2	4	6
48	5	7	4	5	7	7	6	8	5	0	7	8	6	4	4
49	4	6	7	8	5	6	6	8	7	1	6	8	6	8	6
50	5	5	3	4	4	6	4	5	2	4	7	7	7	2	6
51	3	7	6	4	3	3	8	8	8	1	3	8	6	7	7
52	5	6	6	5	6	6	7	6	2	1	7	8	7	3	3
53	5	6	8	8	8	8	6	8	8	2	6	8	7	6	7
54	4	6	7	7	8	7	6	6	6	0	8	7	7	7	6

APPENDIX 20

Correlation Matrix for Variables: X_1 ... X_{39}

	PCI	SOC.SUP.	PYSOM	GEMOS	PERES	PERNOS	ERST	WRST2
PCI	1							
SOC.SUP.	-.47	1						
PYSOM	.404	-.392	1					
GEMOS	-.573	.435	-.284	1				
PERES	-.114	.135	-.085	.144	1			
PERNOS	.535	-.483	.275	-.45	-.195	1		
ERST	.543	-.378	.43	-.529	-.234	.575	1	
WRST2	.383	-.019	.288	-.282	.128	.278	.182	1
WRST1	.455	-.07	-.001	-.519	.155	.409	.363	.541
DEV.PERES	.054	.032	-.125	.094	.167	-.121	.05	-.012
EMOT DEF	-.297	.323	-.331	.23	.066	-.255	-.103	-.289
SELF MED	-.2	-.003	.056	-.107	.005	.116	-.028	-.07
POG	.03	.133	.092	-.007	.358	-.027	-.14	.213
BIOG	-.168	.128	.108	.256	-.197	-.136	-.09	-.173
TM	-.253	.377	-.336	.304	.53	-.278	-.292	.075
AGE	-.157	.052	-.206	.132	.185	-.133	-.236	-.134

1

Correlation Matrix for Variables: X_1 ... X_{39}

	PCI	SOC.SUP.	PYSOM	GEMOS	PERES	PERNOS	ERST	WRST2
EXPER.	-.093	.115	-.177	.145	.357	-.179	-.244	-.162
SERV.	.161	-.069	-.026	.016	.193	.037	-.104	-.192
lpd	.007	.021	.08	-.064	-.176	.003	.098	-.146
qa	.106	.121	.067	.087	.059	-.008	-.146	.286
eg	-.069	.016	-.183	.245	.104	-.229	-.19	-.301
mcei	-.338	.532	-.105	.454	.205	-.512	-.456	-.06
om	-.229	.325	-.11	.278	.181	-.331	-.296	-.147
ec	.049	-.13	-.084	-.188	.093	.023	.057	-.144
fo	-.343	.185	-.146	.295	.101	-.22	-.231	-.385
sto	-.189	.329	-.017	.37	.176	-.366	-.28	-.259
io	-.194	.207	-.082	.381	.307	-.25	-.226	-.084
jc	-.328	.435	.019	.371	.171	-.273	-.21	-.035
to	-.009	.098	.086	-.015	.286	-.156	-.074	.056
ind	-.246	-.052	-.04	.202	-.066	-.154	-.276	-.297
alt	-.203	.239	-.109	.074	.182	-.207	-.206	-.02
soc	.074	.241	-.139	-.009	.181	-.176	-.143	.077

2

Correlation Matrix for Variables: X_1 ... X_{39}

	PCI	SOC.SUP.	PYSOM	GEMOS	PERES	PERNOS	ERST	WRST2
ia	.1	-.22	.218	-.097	-.074	.256	.447	.001
ro	-.071	-.092	.171	-.006	.077	-.106	.054	-.195
ae	-.256	.43	-.122	.3	.14	-.494	-.286	-.232
con	-.108	.176	-.1	.032	-.094	-.103	-.132	-.219
rti	-.149	.208	-.159	.369	.083	-.164	-.272	.01
com	.006	.183	-.033	.202	.249	-.173	-.153	.03
EPI	.577	-.296	.487	-.304	.052	.442	.51	.328

3

Correlation Matrix for Variables: X_1 ... X_{39}

	WRST1	DEV.PER...	EMOT DEF	SELF MED	POG	BIOG	TM	AGE
WRST1	1							
DEV.PERES	-.111	1						
EMOT DEF	-.158	.239	1					
SELF MED	-.056	-.217	-.128	1				
POG	.018	.036	-.089	-.054	1			
BIOG	-.389	-.012	-.003	-.032	-.075	1		
TM	-.082	.179	.089	-.181	.264	-.136	1	
AGE	-.048	.2	.226	-.112	.318	.065	.208	1

4

Correlation Matrix for Variables: X_1 ... X_{39}

	WRST1	DEV.PER...	EMOT DEF	SELF MED	POG	BIOG	TM	AGE
EXPER.	-.059	.243	.028	-.047	.476	-.014	.354	.676
SERV.	-.069	.192	.105	.079	.403	.063	-.072	.376
lpd	-.015	-.033	-.095	.074	-.189	-.067	-.176	-.202
qa	.182	-.034	-.097	.011	-.023	-.132	.191	-.125
eg	-.201	.127	.264	-.012	-.114	.184	.096	.122
mcei	-.296	.052	.307	-.111	.2	.234	.227	.301
om	-.195	-.176	.107	.015	.271	.217	.171	.085
ec	.115	.138	.117	.075	.035	-.203	-.14	.343
fo	-.248	-.289	.235	.098	.078	.137	.075	.205
sto	-.316	.01	.378	-.086	.184	.255	.197	.102
io	-.132	.067	.223	-.189	.136	.028	.211	-.055
jc	-.22	.209	.209	-.145	.282	.141	.235	.09
to	.073	-.017	-.215	-.09	.201	.017	.032	-.044
ind	-.307	-.251	-.066	.264	-.029	.251	-.011	.07
alt	.022	-.032	.101	-.018	.095	-.018	.032	-.079
soc	.087	.142	.074	-.059	.325	-.073	.13	.043

5

Correlation Matrix for Variables: X_1 ... X_{39}

	WRST1	DEV.PER...	EMOT DEF	SELF MED	POG	BIOG	TM	AGE
ia	.119	.049	.037	-.161	-.41	-.001	-.074	-.06
ro	-.149	.113	-.041	.191	.066	.125	-.016	.103
ae	-.193	-.073	.102	.001	.152	.071	.195	.032
con	-.126	-.026	-.134	-.01	.081	.102	.173	-.147
rti	-.079	.019	.06	.022	-.035	.203	-.057	-.003
com	-.014	-.103	.24	-.327	.191	-.142	.22	.091
EPI	.378	.058	-.373	-.02	.062	-.206	-.14	-.244

6

Correlation Matrix for Variables: X_1 ... X_{39}

	EXPER.	SERV.	lpd	qa	eg	mcei	om	ec
EXPER.	1							
SERV.	.571	1						
lpd	-.204	.145	1					
qa	-.17	-.143	-.239	1				
eg	.102	.142	.119	-.082	1			
mcei	.165	.088	-.08	.063	.322	1		
om	.224	.125	-.244	.321	.045	.504	1	
ec	.217	.201	.131	-.491	.249	-.033	-.473	1
fo	.179	.228	.303	-.153	.496	.342	.295	.074
sto	.181	.161	-.164	.267	.3	.504	.523	-.256
io	.125	.195	-.026	.202	.414	.476	.464	-.239
jc	.177	.183	.093	.089	.274	.707	.425	-.183
to	.056	-.065	.207	.052	.151	.076	.08	.093
ind	-.01	-.029	-.185	.081	.273	.084	.148	.029
alt	-.017	.079	-.047	.236	.092	.145	.315	-.14
soc	.191	.047	-.3	.272	-.006	.152	.427	-.206

7

Correlation Matrix for Variables: X_1 ... X_{39}

	EXPER.	SERV.	lpd	qa	eg	mcei	om	ec
ia	-.272	-.176	.205	-.16	-.311	-.241	-.275	-.06
ro	.069	.18	.509	-.225	.273	.127	.082	.094
ae	.184	.142	.317	-.144	.331	.507	.252	.057
con	.024	.098	.429	-.187	.305	.132	-.011	.159
rti	-.022	.198	-.13	.226	.189	.334	.256	-.202
com	.18	-.019	-.122	.135	.151	.354	.368	-.162
EPI	-.097	-.009	-.007	.11	-.275	-.297	-.142	-.115

8

Correlation Matrix for Variables: X_1 ... X_{39}

	fo	sto	io	jc	to	ind	alt	soc
fo	1							
sto	.424	1						
io	.459	.604	1					
jc	.364	.416	.666	1				
to	.197	.099	.285	.175	1			
ind	.31	.228	.145	.012	.046	1		
alt	.135	.355	.304	.178	.159	-.07	1	
soc	-.044	.312	.268	.176	.018	.103	.384	1

9

Correlation Matrix for Variables: X_1 ... X_{39}

	fo	sto	io	jc	to	ind	alt	soc
ia	-.279	-.326	-.238	-.112	-.251	-.445	-.185	-.423
ro	.317	.093	.111	.233	.246	.035	-.033	-.228
ae	.525	.305	.394	.458	.319	.093	.155	.088
con	.333	.083	.111	.194	.243	.057	.14	-.038
rti	.259	.459	.533	.305	-.034	.215	.312	.238
com	.321	.406	.523	.34	.158	-.039	.279	.358
EPI	-.354	-.356	-.204	-.187	.021	-.161	-.266	-.08

10

Correlation Matrix for Variables: X_1 ... X_{39}

	ia	ro	ae	con	rti	com	EPI
ia	1						
ro	.1	1					
ae	-.234	.439	1				
con	-.238	.314	.521	1			
rti	-.135	-.114	.142	-.046	1		
com	-.149	-.149	.268	-.076	.262	1	
EPI	.23	.062	-.119	-.034	-.196	-.164	1

APPENDIX

Intervention Study

Appendix 2.1

Centre for Specific Learning Difficulties (Dyslexia)

12th October 1994

Mr Jim Martin
General Secretary
EIS
46 Moray Place
Edinburgh
EH3 6BH.

Dear Mr Martin,

I am presently engaged in a research study supervised by Dr John Hinton of the Stress Research Unit at Glasgow University. I understand Dr Hinton has already contacted the EIS and spoken to your secretary regarding my intention to write to you.

Our study is now entering the sixth year and has been conducted in a number of schools in different regions with full support of the education authorities. The results suggest that school organisation and organisational climate are influential factors of variables such as social support and job challenge are particularly important. I am, therefore, now at the stage in the research of conducting an intervention study which consists of an in-service package to school staff, focusing on aspects of organisational stress.

I am aware that the EIS has circulated a directive to members advising them not to engage in new or additional initiatives, and therefore wish to obtain the Union's view on this research initiative, and if feasible gain EIS approval.

I enclose a summary of this programme, and further details of the study can be obtained from myself or Dr John Hinton, Stress Research Unit, Psychology Department, University of Glasgow. Telephone 041 339 8855 Ext.5484 (work) or 041 204 4903 (home).

Dr Hinton and myself look forward to hearing from you.

Yours faithfully,

Gavin Reid
Centre Coordinator

cc: Dr John Hinton.

APPENDIX 22

Centre for Specific Learning Difficulties (Dyslexia)

12th October 1994

Mr Ian Dalgleish
Headteacher
Riccarton Primary School
59 Curriehill Road
Currie
EH14 5PU.

Dear Ian,

re: Staff Development - School Supports and Organisational Climate

Since we last spoke, I have been in touch with my supervisor Dr John Hinton of the Psychology Department at Glasgow University and he is supportive of my suggestion to extend the time allocated to my study for a further year. This means that I can implement the programme during session 1995-96, and I would very much like you and your staff to consider this when drawing up your development plan for next academic year.

I would be glad to discuss this further with you.

Thank for your help in this matter.

Yours sincerely,

Gavin Reid
Centre Coordinator

Centre for Specific Learning Difficulties (Dyslexia)

19 June 1995

Mr Ian Dalgleish
Headteacher
Riccarton Primary School
Currie
Edinburgh

Dear Ian

re: Research Study - School Organisation, Teachers' Work Stress and the Effect of an Intervention Study

Further to our discussions, may I confirm the following dates for implemention of the above programme:

- Tuesday, 19th September 1995 1.30pm
- Wednesday, 25th October 1995 1.30pm.
- Wednesday, 29th November 1995 1.30pm
- Wednesday, 6th December 1995 1.30pm.

It may also be necessary to arrange another meeting at a later date to collect summative data to evaluate the effect of the programme.

Please feel free to contact me should you require any further inromation.

Thank you for your help in this matter and I look forward to meeting the staff.

Best wishes.

Yours sincerely,

Gavin Reid
Centre Coordinator

EAST CALDER PRIMARY SCHOOL
9 LANGTON ROAD
EAST CALDER
EH53 0BL
Telephone: 0506 880810

CATHERINE BOYLE MA(Hons)
Headteacher

8 February 1994

Mr Gavin Reid
Centre Coordinator
Centre for Specific Learning Difficulties (Dyslexia)
Moray House College of Education
Holyrood Road
EDINBURGH
EH8 8AQ

Dear Gavin

Thank you for offering some training following Donna's research.

I would be very pleased to take up your offer next session and will be in touch when planning for 95/96 begins.

Yours sincerely

Catth.

C Boyle
Headteacher

LASSWADE ROAD
EDINBURGH EH16 6UA

Telephone: 031-664 2331

PAUL A. DEPONIO, B.A., D.C.E.
Headteacher

GRACEMOUNT PRIMARY SCHOOL

Mr Gavin Reid
Coordinator
Centre for Specific Learning Difficulties
Moray House
Holyrood Road
Edinburgh
EH8 8AQ

4 October 1994

Dear Gavin

I have spoken to my staff and management team members about using your services as part of our school's staff development programme. All are agreed that undertaking the programme as outlined in your letter would be a worthwhile exercise but that the time required is not available this year. However I have been asked to mark it for consideration when drawing up next year's programme. Therefore I would be grateful if you could contact me around May next year if you are still able to offer the school the same programme.

Yours sincerely

PP Paul Deponio BA DCE
Headteacher

Centre for Specific Learning Difficulties (Dyslexia)

19 June 1995

Mr Paul Deponio
Headteacher
Gracemount Primary School
Lasswade Road
Edinburgh.

Dear Mr Deponio

re: Research Study - School Organisation, Teachers' Work Stress and the Effect of an Intervention Programme

Further to our discussions, may I confirm the following arrangements for implementation of the above:

- Tuesday, 19th September 1995 9.00-10am Talk to Whole Staff
- Tuesday, 19th September 1995 10.00-12.30pm Individual Consultations with Staff
- Further individual consultations to be arranged on the 19th September 1995.
- Friday, 15th December 1995 1.20pm Evaluation meeting.

Please feel free to contact me should you require any further information.

Thank you for your help in this matter and I look forward to meeting the staff.

Yours sincerely,

Gavin Reid
Centre Coordinator

Centre for Specific Learning Difficulties (Dyslexia)

19 June 1995

Mr Ian Dalgleish
Headteacher
Riccarton Primary School
Currie
Edinburgh

Dear Ian

re: Research Study - School Organisation, Teachers' Work Stress and the Effect of an Intervention Study

Further to our discussions, may I confirm the following dates for implemention of the above programme:

- Tuesday, 19th September 1995 1.30pm
- Wednesday, 25th October 1995 1.30pm.
- Wednesday, 29th November 1995 1.30pm
- Wednesday, 6th December 1995 1.30pm.

It may also be necessary to arrange another meeting at a later date to collect summative data to evaluate the effect of the programme.

Please feel free to contact me should you require any further inromation.

Thank you for your help in this matter and I look forward to meeting the staff.

Best wishes.

Yours sincerely,

Gavin Reid
Centre Coordinator

Appendix 23

OCCUPATIONAL SUPPORTS

INTERVIEW SCHEDULE

MEETINGS:

1. Would you describe staff meetings as formal or informal?

   Comments:

2. How is the agenda set for the meetings.

3. List the aspects of staff meetings you find most helpful.

COMMUNICATION

4. How is information circulated to you from
   - Headteacher/management
   - Other teachers.

SOCIAL SUPPORT

5. Do you participate in lunch time/after school staff activities?

   List them.

6. How are such activities organised?

INNOVATION

7. How are new educational developments introduced to you.

8. What means are available to you to discuss and negotiate the development and implementation of these innovations.

CLASSROOM SUPPORT

9. List some classroom situations which you feel require additional support.

10. How is such support provided.

11. How are your views considered in relation to classroom support.

STAFF FACTORS

12. Are there still codes on dress. Give details.

13. Are there any procedures for staff to follow regarding punctuality and absence.

14. In what way has the school's region's programme on professional development helped you. Give details.

15. How would you briefly describe the climate in the school.

APPENDIX 24

RICCARTON PRIMARY SCHOOL
IN-SERVICE PROGRAMME

ORGANISATIONAL FACTORS AND SCHOOL SUPPORTS

PROGRAMME

SESSION 1: 19.09.95
* Introduction to stress management and organisational factors
* Time management
* Individual differences

SESSION 2: 25.10.95
* Organisational factors
* Organisational structure
* Organisational change
* Conflict handling
* Pressures on school staff
* Inter - personal support

SESSION 3: 29.11.95
* Individual discussion

SESSION 4: 06.12.95
* Individual discussion
* Organisational climate
* Short summative questionnaire

APPENDIX 25

ORGANISATIONAL CLIMATE AND SCHOOL SUPPORTS - A WHOLE-SCHOOL PROGRAMME

Programme devised by Gavin Reid, Department of Professional & Curriculum Support Studies, Moray House Institute, Edinburgh.

PROGRAMME OUTLINE

BACKGROUND

Recent educational innovation relating to both the curriculum and school organisation can create some anxieties among staff (Reid, 1989,1990,1992,1993: Proctor, 1993).

Schools now face the challenge of further administrative changes stemming from the impending devolution of responsibility for school resources and general management from the central regional authority to individual schools themselves.

This school management programme in dealing with organisational climate will attempt to address some of the school supports which may circumvent or minimise anxieties and perceived stress which may accompany curricular, administrative and organisational changes.

FOCUS

The focus for this in-service programme will be on the following:

- personal organisation/learning styles
- classroom factors
- school dimensions
- management and administration.

Previous research studies (Reid 1989-1993: Proctor 1993) investigating teacher anxieties and school supports show that the following factors are significant:

- perceived non-satisfaction of needs
- social supports within school
- motivation
- job challenge
- staff involvement in organisational decisions.
- school administration
- inter-personal communication within school
- readiness to innovate
- role of school management
- learning style.

The four sessions will, therefore, focus on these aspects and attempt to:

- develop an awareness of the different facets of school supports
- identify significant features within the school organisational climate
- relate organisational climate to personal coping resources, learning styles and school supports

- identify and highlight constructive factors in relation to personal and organisational factors which may minimize the effects of anxieties and tension which may accompany major organisational change.

- **Framework for sessions:**

  The framework for the four sessions consists of:

  - **Personal Organisation**

    - time management
    - planning and preparation
    - diary and record keeping
    - information gathering/general awareness.

  - **School Organisation**

    - organisational components
    - organisational models
    - vulnerable aspects of organisations
    - staff interaction within organisational structures.

  - **Inter-Personal Support within Organisation**

    - nature of inter-personal support
    - features of a supportive organisation
    - inter-personal support and teaching

  - **Organisational Climate**

    - Role of management
    - Organisational climate dimensions
    - Assessing climate

There will also be an exercise to collect pre-course data and an evaluation exercise on completion.

A handbook will be prepared which can be used as a reference by course participants.

APPENDIX 26

Organisational Climate and School Supports - A Whole School Programme

Programme devised by Gavin Reid, Moray House Institute, Edinburgh.

PROGRAMME WORKBOOK

Aims and Introduction

Studies show that anxieties in the teaching profession can be related to a number of factors. These factors include:

- perceived non-satisfaction of needs
- the need for social supports within school
- motivation
- job challenge
- staff involvement in organisational decisions
- school administration
- interpersonal communication within the school
- readiness to innovate
- nature of school management.

These sessions will therefore address these factors and relate them particularly to school supports and a supportive organisational climate.

It is important, however, to obtain a degree of base line data to help both direct the programme and monitor and evaluate its effect. For this purpose therefore a questionnaire needs to be completed.

SESSION 1 - PERSONAL ORGANISATION/LEARNING STYLES

Each individual has a preferred level of personal organisation. To one individual this might be a highly structured, tight organisational plan which leaves little room for flexibility, while another may prefer a much looser form of personal organisation. This is an individual preference, the important aspect being:

- that you are allowed to practice your preferred style
- that your preferred style is sufficient and efficient to deal with the organisational demands of your job
- you do not feel de-skilled or devalued because of your preferred style.

Some aspects of one's personal organisation which warrants attention are:

- time management
- planning and preparation
- diary and record keeping
- information gathering/general awareness
- preferred learning style - i.e. style of taking in information.

TASK:

- **Time Management**

Complete the time management schedule below. Rank the list below 1-7 e.g. 1 being the method you most prefer and 7 the least preferred.

- Do you divide your working week into
  - Tasks to be completed
  - Tasks to be completed and times when these will be done
  - Time available to do tasks as they appear
  - Week by week management timetable
  - Daily time management programme
  - Parts of day time management
  - No real thought given to time management

Justify your choice by commenting on each of the above, indicating such things as the importance, difficulty in implementation, conflict between intentions and reality etc.

- **Planning and Preparation**

How important is planning and preparation to you personally - does it present you with problems? What kind of problems? Make a list of the difficulties which need to be overcome in planning and preparation.

- **Diary and Record Keeping**
- How important is this to your job?
- Do you consult your diary records daily, more than daily or weekly or seldom?
- Does diary and record keeping present you with difficulties?
- What are these difficulties? Make a list of these difficulties.
- **Information Gathering and General Awareness**
  - Do you consider yourself to be generally aware of what is going on in your school?
  - Do you sometimes miss out on information? If so, why?
  - How do you like information presented - for example:
    - noticeboard
    - memos

- informal - word of mouth
- formal - staff meetings.

- **Learning Style**

Learning style refers to an individual's preferred method of taking in, of learning new information and adapting to the working environment.

If information is passed to staff in a particular working environment by means of written memo (written/auditory mode) this may not be compatible to all staff, especially those who prefer absorbing information visually by using graphics; or those who prefer information to be given orally. Similarly, some staff may prefer to take in information analytically, in small pieces and each with some justification, while others may prefer to learn globally and holistically (Dunn and Dunn,1979-92)

Activity One: Learning Syles

This activity is based on Psychogeometrics (Dellinger, 1991) and will provide you with an appreication of learning styles (to follow)

Activity Two: initially in twos, then in whole group.

Discuss the difficulties you encounter in

- planning and preparation
- diary and record keeping
- information gathering and general awareness
- discuss the responses from the learning styles activity.

- Should these aspects be important and if so why?
  - How can the gulf, if one does exist, between intentions and reality be overcome?
  - Can personal organisation be separated from school organisational factors?
  - List some possible time management strategies.

Follow-up:

- Attempt some different time management strategies. Which do you prefer and why.
- Reflect on the importance of learning styles and your particular learning style.

SESSION 2 - SCHOOL ORGANISATION

- **Organisation Model and Components**

The aim of this session is to allow group members to identify the organisational model within the school and specific components of that model.

- **Different types of models**

    - Components of a School Organisation
        - Education Authority
        - Headteacher
        - Deputy head
        - Assistant Head
        - Teachers
        - Specialist teachers
        - Teaching auxiliaries
        - Parents
        - Administrative staff
        - Janitors
        - Domiciliary staff
        - Pupils

- **Vulnerable aspects of school organisation - Activity**

- **Staff Interactions within organisation**

    - Identify method of interacting with others in your organisation (p197 Exercise) Compare your response with one other person.
    - List alternative means of interacting and discuss these with another person.
    - List all the methods in rank order, and discuss in whole group.

    Activity:

        - Relate your list of methods of interacting with your responses on learning styles which you completed at the previous meeting.

        - How can an organisation take into account different learning styles of staff.

SESSION 3 - INTER-PERSONAL SUPPORT

Recent research (Procter, 1993) indicates that social supports within schools are the most valuable preventative measure for class teachers in relation to occupational stress.

This session will, therefore, focus on issues relating to inter-personal support within school. Some examples of inter-personal support include:

- ready access to management
- management concern for staff welfare
- staff concerned with colleagues' welfare
- peer approval
- management approval
- whole staff social activities
- common staff identify
- any other.

Activity

In groups complete the following grid.

Category of Support	Example	Benefits	Difficulties
e.g. Ready access to management.	Open door policy	Do not feel a nuisance	Lack of free time to see Head/May not be available when you are free.

- **Inter-Personal Support Diary**

Activity

Construct a personal diary for the last two weeks, showing how
(i) you have received inter-personal support
(ii) you have provided inter-personal support

Follow-up

Construct a similar diary until the next meeting, showing both how you have provided and received inter-personal support.

SESSION 4 - ORGANISATIONAL CLIMATE

- **Role of Management**

  - Management Styles

Activity:

In groups, discuss the advantages and disadvantages of different management styles.

- **Climate Dimensions**

  A list of climate dimensions include the following:

  - leadership style
  - questioning of authority
  - egalitarionism
  - management concern for employee involvement
  - open mindedness
  - emotional control
  - future orientation
  - scientific or technical orientation
  - intellectual orientation
  - job challenge
  - task orientation
  - industriousness
  - altruism
  - sociability
  - inter-personal aggression
  - rules orientation

- administration efficiency
- conventionality
- readiness to innovate
- community.

Activity

- In groups of two, comment on these dimensions within your school. Try to list them in order of importance.

- Feedback to whole group on climate dimensions.

Summing Up

- Some comment will be made on the four sessions.

  - personal organisation
  - school organisation
  - inter-personal support
  - organisational climate.

APPENDIX 27

ORGANISATIONAL FACTORS AND SCHOOL SUPPORTS - PROGRAMME APPENDIX

* ORGANISATIONAL STRUCTURE
* ORGANISATIONAL CHANGE
* CONFLICT HANDLING
* TIME MANAGEMENT
* PRESSURES ON SCHOOL STAFF
* INTER - PERSONAL SUPPORT

Cartoon by Sophie and Gregory Huczynski

View 1

> Structure is a means for attaining the objectives and goals of an organization.

From Peter Drucker, 'New templates for today's organizations' in *Harvard Business Review*, January–February, 1974, p. 52.

View 2

> [Organization structure is] the extent to which and the ways in which organization members are constrained and controlled by the organization and the distribution of activities and responsibilities and the organizational procedures and regulations.

From Open University, *People in Organizations*, course book, DT 352, Open University Press, Milton Keynes, 1974, p. 61.

SNO-MA-JOAB!

The following poem was pinned up on the notice board of a factory canteen in the west of Scotland.

Sno-ma-joab tae sweep the flair,
Or move the stuff frae here tae there,
Sno-ma-joab tae hump a ton,
O' this an' that – sno-much-fun.

Sno-ma-joab tae wunner why,
The boss is lookin' sad o'eye,
Sno-ma-joab tae figure oot,
Jist whit he has tae gripe aboot.

Sno-ma-joab tae gie a rap,
When there's some overtime tae tap,
Sno-ma-joab delivery's met,
Why should I brekk intae sweat?

Sno-mae-job tae sharpen tools,
If other dae it, they're the fools,
Sno-ma-joab tae even blush,
When joining in the pay-day rush.

Sno-ma-joab frae start tae bell,
Tae dae some thinkin' for masel',
Sno-ma-joab tae ruminate,
This firm is gaun' tae liquidate.

Sno-ma-joab stop an' say,
'Should Ah work harder every day?'
It's no' ma worry help ma boab,
Why should I bother? Sno-ma-job!

Source: Unknown

Guidelines for effective change management

- You and your colleagues need to be informed and consulted about your opinions and feelings and need to be active participants in changes that are affecting your role.

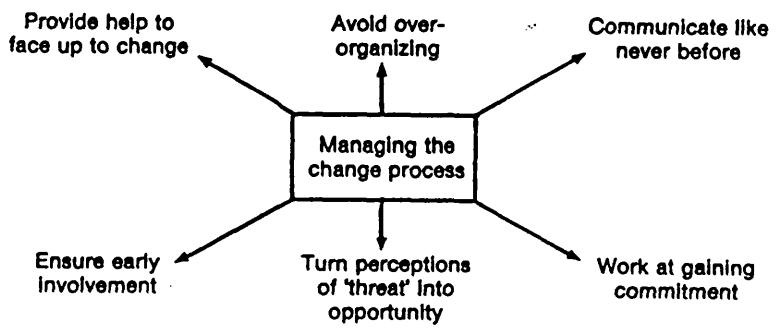
- You and your colleagues should participate with the head or deputy head or the senior management team, or middle management in working out a careful strategy for change which should be implemented in stages.

- All of you should be clear about your objectives and agree on realistic targets. When the first targets are achieved ensure that everyone's contribution is appreciated.

- You should make your training needs known and share your feelings and even your apprehensions if you have any.

- You should share your disappointments if things do not happen as intended in the plans.

- You should support your colleagues (including the head and management teams) if they need it and let them support you if you need it.



Source: adapted from Plant 1987, p. 32

Figure 12.1 Six key management activities for successful implementation of change

Twelve rules for overcoming resistance to change . . .

Who brings the change?

1. Resistance will be less if administrators, teachers, board members and community leaders feel that the project is their own – not one devised and operated by outsiders.
2. Resistance will be less if the project clearly has the wholehearted support from top officials of the system.

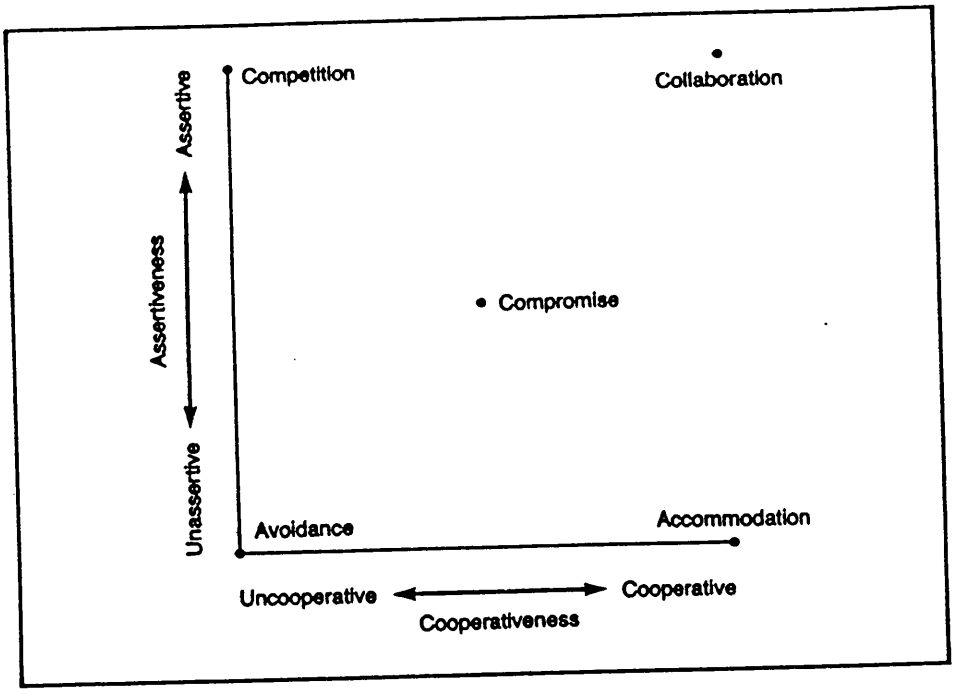
What kind of change?

3. Resistance will be less if participants see the change as reducing rather than increasing their present burdens.
4. Resistance will be less if the project accords with values and ideals which have long been acknowledged by participants.
5. Resistance will be less if the programme offers the kind of new experience which interests participants.
6. Resistance will be less if participants feel that their autonomy and their security is not threatened.

Procedures in instituting change

7. Resistance will be less if participants have joined in diagnostic efforts leading them to agree on what the basic problem is and to feel its importance.
8. Resistance will be less if the project is adopted by consensual group decision.
9. Resistance will be reduced if proponents are able to empathize with opponents; to recognize valid objections; and to take steps to relieve unnecessary fears.
10. Resistance will be reduced if it is recognized that innovations are likely to be misunderstood and misinterpreted; and if provision is made for feedback of perceptions of the project and for further clarification as needed.
11. Resistance will be reduced if participants experience acceptance, support, trust and confidence in their relations with one another.
12. Resistance will be reduced if the project is kept open to revision and reconsideration if experience indicates that changes would be desirable.

Dimensions of conflict-handling orientations



Avoidance ('Leave well alone')

One party may recognize that a conflict exists but chooses to withdraw from it or to suppress it. This style therefore involves ignoring conflicts in the hope that they will go away; putting problems on hold; invoking slow procedures to stifle the conflict; using secrecy to avoid confrontation; and appealing to bureaucratic rules to resolve the conflict. The desire to evade the overt demonstration of a disagreement or indifference can result in withdrawal. If withdrawal is not possible or desirable, the individual may suppress, that is, withhold their differences. In situations where people have to interact because of their work requirements or because they are living together, suppression will be more likely than withdrawal.

Accommodation ('No, after you')

On occasions, one party may try to appease another and put their concerns above their own. When husbands and wives have disagreements, it is not uncommon for one partner to place the other's interest above their own, perhaps to maintain a relationship. Accommodation involves giving way, submission and compliance.

Compromise ('Split the difference')

When each of the two parties give up some aspect of their concern, then sharing occurs and a compromise outcome is achieved. No-one wins and no-one loses. Instead, parties trade off one advantage for another. In union–management and arms reduction negotiations, compromise is required in order for an agreement to be reached. A compromise conflict-handling orientation involves negotiation, looking for deals and trade-offs; and finding satisfactory or acceptable solutions.

Competition ('Might is right')

When one party is highly assertive with regard to its own goals and concerns, and it tries to further its own interests regardless of the impact this may have on others, then it will adopt this battling, competitive style. This particular conflict-handling orientation involves the creation of win–lose situations; the use of rivalry and power-plays to achieve one's own ends; and involves forcing a submission from the other party. In formal groups or in organizations, these win–lose struggles may use the formal authority of a mutual supervisor as a dominant force. The individuals who are in conflict will try to use their own power base to achieve a result which is favourable to them.

Collaboration ('Let's work this out together')

Here, both the parties in conflict try to satisfy their own goals and concerns. It is characterized by a problem-solving stance; confronting differences and sharing ideas and information; seeing problems and conflicts as a challenge. It involves searching for integrative solutions which go beyond just accommodating different points of view. Since the final solution should be advantageous to both parties in that both can gain, this strategy is often referred to as the win–win approach. It is used by marriage guidance counsellors.

GROUNDRULES FOR LEARNING HOW TO REDUCE STRESS

1 Accept the possibility of the existence of stress in your colleagues and yourself.
2 Learn to understand what stress is.
3 Begin to tackle the problem by identifying the pressures from change, role conflict, poor working conditions and pupil behaviour in your school.
4 Learn to recognize your reactions to pressures, for example, in your behaviour and relationships, emotions, thinking and the reactions in your body.
5 Identify your coping strategies at work and outside work.
6 Develop stress-reduction training programmes at the individual/department/pastoral-team/whole-school levels which will enable you to develop a wide range of personal, interpersonal, organizational and community resources which you can use to deal with your pressures and reactions.

The third kind of environmental pressure is organizational. Here, the problems include ineffective communications, difficult staff relationships, very heavy workloads and inappropriate leadership styles. Explicit details of these difficulties were reported and discussed by colleagues in an in-service conference. The comments are not in order of priority or importance:

Workload too heavy; lack of forward planning to spread this.
Poor interpersonal relationships at work.
Conflicting demands made by having different roles/responsibilities in different areas.
Lack of feedback concerning points raised in discussions/decisions taken by management (any level of management).
Too many meetings with too little structure, overloaded agenda, insufficient prior information/documentation.
Too much administration, not sufficiently spread out.
Students with personal difficulties who rely on staff to advise them when staff have little or no training in this area.
General lack of clarity concerning tutorial role.
Impact of Education Act, all the other new initiatives such as LMS, opting out, GCSEs, etc.
Poor amount of INSET both within the working day and professionally organized for all who are interested (rather than the 'cascade' theory).
Lack of sufficient non-contact time for preparation, marking, and discharging of other responsibilities.
Lack of proper resources to do the job more efficiently or even properly.
Financial problems.
Lack of clerical assistance in the matter of exams, worksheets, duplicating, etc.
No/little positive recognition of when a job is being done well under very trying circumstances.

Ten benefits of successful time management

1 More effective stress management
2 Clearer thinking
3 Better forward planning
4 More time available for more important tasks
5 Better personal relationships
6 Better use of information
7 Greater self-confidence and credibility
8 Better quality work
9 More work done
10 Improvement of career prospects.

To achieve these benefits, here are some practical suggestions to help you to organize your own personal work and the way you spend your time more effectively. Check yourself against this six-point programme once a month for the next six months. The programme is based on one proposed by John Adair in his book *Effective Leadership* (1983).

1 Develop a new personal sense of time. Do not rely on memory. Record where your time goes.
2 Plan ahead. Make plans on how you are going to spend your time each day, week, month, term and year. Plan in respect of opportunities and results, priorities and deadlines.
3 Make the most of your best time. Programme important tasks for the time of day you function best. Have planned quiet periods for creative thinking.
4 Avoid clutter. Sort papers into categories according to action priorities. Generate as little paper as possible yourself.
5 Do it now. 'Procrastination is the thief of time.'
6 Learn to say 'No'. Do not let others misappropriate your time. Decline tactfully but firmly to avoid over-commitment.

SOME FURTHER SUGGESTIONS

1 Be prepared to write down tasks as they are received.
2 Construct a weekly list based on order of importance.
3 Allot tasks to approriate time slots during the week.
4 Undertake more thought-orientated tasks at times when freshest. If necessary divide up lengthy tasks into small units.
5 Look for tasks that can be discarded.
6 Identify sources which will enable rapid and successful completion of tasks.
7 Try to avoid taking on more than is reasonably possible to complete.
8 Check off tasks once completed.
9 Try to ensure that some time is left available for emergencies or nothing in particular.

STEPS TO GOOD TIME MANAGEMENT

Essential steps to good time management are:

- **Wanting:** to use time more effectively;
- **Planning:** what needs to be done;
- **Organising:** what needs to be done;
- **Doing:** what needs to be done;
- **Monitoring:** what *is* being done;
- **Evaluating:** what *has* been done.

SOME PRESSURES ON SCHOOL STAFF

- DISRUPTIVE AND UNMOTIVATED PUPILS
- SENIOR MANAGEMENT
- ATTENDANCE AT SCHOOL MEETINGS
- ADMINISTRATION AND PAPERWORK
- WORKING CONDITIONS
- RESOURCES
- LACK OF CONSULTATION
- NON-CONTACT TIME
- NEW INITIATIVES INTRODUCED TOO QUICKLY

ADD ANY OTHER OF YOUR OWN

SK:- IN GROUPS SELECT TWO OF THESE PRESSURES AND

(i) SUGGEST WHY THESE FACTORS MAY BE A PRESSURE

(ii) SUGGEST WAYS IN WHICH THEY CAN BE TACKLED IN YOUR SCHOOL

INTER-PERSONAL SUPPORT

SITUATION	RESPONSIBILITY	SUPPORT
Parents evening called off at short notice due to flooding in school		
Four teachers off with flu		
School inspection imminent		
Pupil upset in class due to family difficulties		
Management not available when you need to see them		
New teacher on staff		

ACTIVITY

Either on your own or preferably with a colleague, list all the things which cause you stress at work.

1._____ 2._____

3._____ 4._____

5._____ 6._____

7._____ 8._____

9._____ 10._____

Now place each of the above items in order of importance for you. Give each item a score of between one and ten (ten being the most important).

ACTIVITY

Write a set of personal guidelines for the management of the change you have decided upon in Activity Four.

HOW SCHOOLS MANAGE CHANGE

The change management model

The change management model recommends six stages as a framework for the planning of change (Kemp, 1989). These are as follows:

1. Prioritising;
2. Clarifying;
3. Creating;
4. Formulating;
5. Implementing;
6. Reviewing.

1. *Prioritising*. At any one time there are many changes taking place in departments/schools. It is important that we should not tackle too much at once so it is essential that we should decide which are the most urgent tasks and place them in order of priority. It is necessary for us to set a timescale for each of these to be completed.

2. *Clarifying*. Having established what the change is that we wish to make we next need to clarify our objectives. We should work out who is affected by the change and who needs to be involved in its planning. We need to clarify what our outcomes are, and to be aware that we need to set the goals.

3. *Creating*. Here we look at all the possible approaches to the task. We need to be creative and identify all the people who should be involved, the resources needed and the resources available. In addition we need to identify the driving forces and the resisting forces (see the section on force field analysis given earlier in this chapter) and see how we can change them to meet our requirements.

   There are several techniques available to generate ideas. For example, brainstorming, force field analysis, discussion. Brainstorming means that a group generates a list of ideas without passing any comment. Every idea, however useless we might initially feel it is, is recorded. The aim is to generate a large number of possible ideas. Through this process an original idea might appear. When a brainstorm has been completed, the group can then place items in categories in order of importance as the members will then be in a better position to make decisions and choices. By working together group members can develop each other's ideas. Brainstorming has four main purposes:

   1. *to generate a large number of ideas very quickly;*
   2. *to encourage creative and lateral thinking;*
   3. *to involve the whole group; and*
   4. *to demonstrate that people working together can achieve more than the individual can, working alone.*

   In order to generate alternative courses of action, we can make group use of force field analysis. From all the ideas generated we have the following possibilities for moving forward;

   - prioritisation of ideas;
   - identification of areas where there is still no agreement, discussion of selected ideas in more detail. Identification of the strong and the weak points of the topic;
   - the setting out of a timetable for action;
   - the development of an action plan and decisions made about its implementation in terms of who will do what, and when. One can use the same methods to identify all the available resources, people, equipment, time factors, ideas, influence, physical space, etc.

4. *Formulating*. Using the information gained in (3) above, we will now be in a position to look at the following in order to plan the change strategy:

   - How will the change be resourced?
   - Who will be the change agents?
   - What are the costs, people, time etc?
   - What hardware/software is needed?

   From the force field analysis we will be able to decide which individuals will help us to implement the change and which of them will need to be persuaded.

   We will now be in a better position to draw up a timescale of events. An important aspect of this is to look at the resisting forces and to see how we can overcome them/lessen them and to use the same process with the driving forces. We will need to consider how we make them stronger. We will need to take account of the extra resources that we may need. Will this involve extra financial resources? Will we need to involve people outside the school? How can we continue to motivate everyone involved? How can we keep the whole change visible to all? How do we decide on our deadlines and our timescale? It is important to remember that others have their own work and deadlines which are as important to them as your current project is to you. What part of the work can be delegated?

5. *Implementing*. This overlaps with (4) above. Here we need to consider the following:

   - How do we continue to motivate everybody? How can we ensure commitment?
   - How do we evaluate the change?
   - How do we monitor the process? Who will do the monitoring and how?
   - How can the process be coordinated and communication to all be ensured? It is essential to set up adequate communication processes to allow this to happen. Most teachers will remain motivated if they feel that they are being consulted and listened to and that their opinions are being valued.

6. *Reviewing*. Both the process of planning and implementing the change and the effects of the change need to be monitored and evaluated. It is important throughout the process to check if deadlines and tasks are being met and completed. Evaluation is crucial to see if our objectives have been achieved. We will need to decide how to do this and who will be responsible for this.

SOURCES USED FOR THIS PROGRAMME APPENDIX

- HUCZYNSKI "ORGANISATIONAL BEHAVIOUR"
- BROWN, M AND RALPH, S "MANAGING STRESS IN SCHOOLS" NORTHCOTE HOUSE (1994)
- DUNHAM, J. (1992) STRESS IN TEACHING ROUTLEDGE

ACTIVITY

Think about a few major changes that your department or school will need to make during the coming year.

1. _____
2. _____
3. _____
4. _____
5. _____

Encourage a group of colleagues to brainstorm these changes that the department or school needs to make.

APPENDIX 28

Correlation Matrix for Variables: X_1 ... X_{15}

	PCI	SOCSUP	GEMOS	ERST	ORGCH	WORST1	worst 2	age
PCI	1							
SOCSUP	-.232	1						
GEMOS	-.594	.473	1					
ERST	.247	-.405	-.418	1				
ORGCH	.096	-.155	-.172	.247	1			
WORST1	.199	.24	-.029	.125	-.061	1		
worst 2	.317	.06	-.259	-.048	.15	.215	1	
age	-.139	-.152	-.029	-.019	.188	-.379	-.201	1
EXPER	-.177	-.075	.051	-.13	.075	-.287	-.178	.792
psysom	.12	-.396	-.235	.47	.172	-.13	.172	-.081
MANCON	.099	.439	.22	-.199	.065	.079	.032	-.109
soc.	.11	.114	.081	-.253	-.089	.186	.213	-.208
CHALL	.038	.377	.372	-.237	.19	-.026	-.038	.032
r.t.i.	-.024	.092	.391	.048	-.007	.056	-.288	-.037
pernos	.496	-.221	-.421	.355	-.102	-.061	-.007	.033

Note: 1 case deleted with missing values.

Correlation Matrix for Variables: X_1 ... X_{15}

	EXPER	psysom	MANCON	soc.	CHALL	r.t.i.	pernos
EXPER	1						
psysom	-.179	1					
MANCON	-.062	-.099	1				
soc.	-.064	-.262	.203	1			
CHALL	.073	-.094	.657	.229	1		
r.t.i.	.004	.063	.244	.019	.388	1	
pernos	-.033	.11	-.17	-.204	-.011	-.076	1

APPENDIX 28(A)

Correlation Matrix for Variables: X_1 ... X_{12}

	SOCSUP	GEMOS	ERST	ORGCH	WORST1	worst 2	psysom	MANCON
SOCSUP	1							
GEMOS	.473	1						
ERST	-.405	-.418	1					
ORGCH	-.155	-.172	.247	1				
WORST1	.24	-.029	.125	-.061	1			
worst 2	.06	-.259	-.048	.15	.215	1		
psysom	-.396	-.235	.47	.172	-.13	.172	1	
MANCON	.439	.22	-.199	.065	.079	.032	-.099	1
soc.	.114	.081	-.253	-.089	.186	.213	-.262	.203
CHALL	.377	.372	-.237	.19	-.026	-.038	-.094	.657
r.t.i.	.092	.391	.048	-.007	.056	-.288	.063	.244
PCI+PER...	-.262	-.587	.348	-.004	.08	.179	.133	-.041

Note: 1 case deleted with missing values.

Correlation Matrix for Variables: X_1 ... X_{12}

	soc.	CHALL	r.t.i.	PCI+PER...
soc.	1			
CHALL	.229	1		
r.t.i.	.019	.388	1	
PCI+PER SS	-.054	.016	-.058	1

Appendix 29

Correlation Matrix for Variables: X_1 ... X_{13}

	PCIb	SOCSUPb	GEMOSb	ERSTb	ORGCHb	WORST1b	WORST2b	PSYSOMb
PCIb	1							
SOCSUPb	-.022	1						
GEMOSb	-.428	.135	1					
ERSTb	.316	-.056	-.218	1				
ORGCHb	.492	-.293	-.256	.334	1			
WORST1b	.526	.002	-.589	.292	.181	1		
WORST2b	.339	.172	-.228	.156	.036	.143	1	
PSYSOMb	.2	-.04	-.039	.343	.057	.159	.154	1
MANCONb	-.047	.278	.044	.192	-.055	-.043	.16	-.007
soc.b	.024	.197	.293	-.051	-.017	-.067	.184	-.131
CHALLb	-.153	.256	.368	.131	-.118	-.123	.201	.011
r.t.i.b	-.35	.132	.232	.033	-.074	-.016	-.199	-.039
pernos 2	-.166	.213	-.108	.038	-.1	-.02	.212	-.034

Note: 1 case deleted with missing values.

Correlation Matrix for Variables: X_1 ... X_{13}

	MANCONb	soc.b	CHALLb	r.t.i.b	pernos 2
MANCONb	1				
soc.b	-.067	1			
CHALLb	.401	.142	1		
r.t.i.b	.098	.174	.36	1	
pernos 2	.365	-.147	.115	.114	1

APPENDIX 29(d)

Correlation Matrix for Variables: X_1 ... X_{13}

	PSYSOMb	MANCONb	soc.b	CHALLb	r.t.i.b	MATURE	WORST2b	GEMOSb
PSYSOMb	1							
MANCONb	-.007	1						
soc.b	-.131	-.067	1					
CHALLb	.011	.401	.142	1				
r.t.i.b	-.039	.098	.174	.36	1			
MATURE	.021	.102	.286	.284	.04	1		
WORST2b	.154	.16	.184	.201	-.199	.093	1	
GEMOSb	-.039	.044	.293	.368	.232	.352	-.228	1
ERSTb	.343	.192	-.051	.131	.033	-.046	.156	-.218
ORGCHb	.057	-.055	-.017	-.118	-.074	.157	.036	-.256
WORST1b	.159	-.043	-.067	-.123	-.016	-.298	.143	-.589
SOCSUPb	-.04	.278	.197	.256	.132	.096	.172	.135
PCI+PER...	.129	.246	-.095	-.029	-.183	-.009	.427	-.415

Note: 1 case deleted with missing values.

Correlation Matrix for Variables: X_1 ... X_{13}

	ERSTb	ORGCHb	WORST1b	SOCSUPb	PCI+PER...
ERSTb	1				
ORGCHb	.334	1			
WORST1b	.292	.181	1		
SOCSUPb	-.056	-.293	.002	1	
PCI+PERNOS...	.274	.304	.391	.148	1

WPPDV01x30

X_1: PCI

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
-17.396	12.959	1.871	167.946	-74.497	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
-43	14	57	-835	22419	0
Kurtosis:	**Skewness:**				
-.18	.513				

X_2: SOCSUP

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
5.917	6.974	1.007	48.631	117.864	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
-10	18	28	284	3966	0
Kurtosis:	**Skewness:**				
-.371	-.626				

X_3: GEMOS

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
14.708	11.812	1.705	139.53	80.31	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
-26	34	60	706	16942	0
Kurtosis:	**Skewness:**				
1.146	-.776				

X_4: ERST

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
33.521	16.779	2.422	281.531	50.055	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
10	74	64	1609	67167	0
Kurtosis:	**Skewness:**				
-.866	.586				

X_5: ORGCH

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
50.625	11.108	1.603	123.388	21.942	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
26	69	43	2430	128818	0
Kurtosis:	**Skewness:**				
-.763	-.378				

X_6: WORST1

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
3.083	12.488	1.802	155.95	405.016	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
-19	44	63	148	7786	0
Kurtosis:	**Skewness:**				
.843	.674				

X_7: worst 2

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
23.333	5.443	.786	29.631	23.329	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
13	33	20	1120	27526	0
Kurtosis:	**Skewness:**				
-1.015	-.046				

X_8: age

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
2.521	.922	.133	.851	36.587	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
1	4	3	121	345	0
Kurtosis:	**Skewness:**				
-.79	-.226				

X_9: EXPER

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
4.125	1.453	.21	2.112	35.228	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
1	6	5	198	916	0
Kurtosis:	**Skewness:**				
-.567	-.514				

X_{10}: psysom

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
36.854	11.727	1.693	137.531	31.821	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
17	78	61	1769	71659	0
Kurtosis:	**Skewness:**				
1.535	.624				

X_{11}: MANCON

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
5.938	1.577	.228	2.485	26.552	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
3	8	5	285	1809	0
Kurtosis:	**Skewness:**				
-.735	-.489				

X_{12}: soc.

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
5.188	1.633	.236	2.666	31.477	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
1	8	7	249	1417	0
Kurtosis:	**Skewness:**				
.182	-.661				

X_{13}: CHALL

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
4.979	1.828	.264	3.34	36.704	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
1	8	7	239	1347	0
Kurtosis:	**Skewness:**				
-.65	-.265				

X_{14}: r.t.i.

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
5.771	1.403	.202	1.968	24.307	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
2	8	6	277	1691	0
Kurtosis:	**Skewness:**				
.134	-.708				

APPENDIX 31

X_1: PCIb

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
-23.146	12.91	1.863	166.68	-55.779	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
-52	8	60	-1111	33549	0
Kurtosis:	**Skewness:**				
.127	.343				

X_2: SOCSUPb

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
8.271	5.534	.799	30.627	66.912	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
-8	18	26	397	4723	0
Kurtosis:	**Skewness:**				
.236	-.386				

X_3: GEMOSb

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
16.229	11.499	1.66	132.223	70.853	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
-16	36	52	779	18857	0
Kurtosis:	**Skewness:**				
.002	-.334				

X_4: ERSTb

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
30.583	16.798	2.425	282.163	54.924	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
10	80	70	1468	58158	0
Kurtosis:	**Skewness:**				
.861	1.057				

X_5: ORGCHb

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
52.729	9.905	1.43	98.117	18.785	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
25	82	57	2531	138069	0
Kurtosis:	**Skewness:**				
1.254	-.255				

X_6: WORST1b

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
-5.542	11.537	1.665	133.105	-208.188	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
-30	29	59	-266	7730	0
Kurtosis:	**Skewness:**				
.469	.564				

X_7: WORST2b

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
21.708	5.391	.778	29.062	24.833	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
12	36	24	1042	23986	0
Kurtosis:	**Skewness:**				
.035	.431				

X_8: PSYSOMb

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
34.938	10.515	1.518	110.57	30.097	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
17	61	44	1677	63787	0
Kurtosis:	**Skewness:**				
-.574	.128				

X_9: MANCONb

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
6.5	.989	.143	.979	15.22	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
4	8	4	312	2074	0
Kurtosis:	**Skewness:**				
.629	-.733				

X_{10}: soc.b

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
5.583	1.609	.232	2.589	28.817	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
1	8	7	268	1618	0
Kurtosis:	**Skewness:**				
.346	-.601				

X_{11}: CHALLb

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
5.583	1.555	.224	2.418	27.853	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
2	8	6	268	1610	0
Kurtosis:	**Skewness:**				
-.431	-.517				

X_{12}: r.t.i.b

Mean:	Std. Dev.:	Std. Error:	Variance:	Coef. Var.:	Count:
6.646	1.211	.175	1.468	18.229	48
Minimum:	**Maximum:**	**Range:**	**Sum:**	**Sum Squared:**	**# Missing:**
3	8	5	319	2189	0
Kurtosis:	**Skewness:**				
.88	-1.107				

APPENDIX 32

One Sample t-Test X_1: PCIb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	-5.75	1	-2.422	.0193

One Sample t-Test X_2: SOCSUPb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	2.354	1	1.151	.2557

One Sample t-Test X_3: GEMOSb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	1.521	1	.254	.8004

One Sample t-Test X_4: erst b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	-4.542	1	-2.178	.0344

One Sample t-Test X_5: ORGCHb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	2.104	1	.508	.614

One Sample t-Test X_6: WORST1b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	-8.625	1	-3.938	.0003

One Sample t-Test X_7: WORST2b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	-1.625	1	-2.335	.0239

One Sample t-Test X_8: Column 36

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	-1.917	1	-1.247	.2185

One Sample t-Test X_9: MANCONCb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	.562	1	-1.757	.0854

One Sample t-Test X_{10}: SOCb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	.396	1	-2.166	.0354

One Sample t-Test X_{11}: CHALLb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	.604	1	-1.181	.2436

One Sample t-Test X_{12}: RTIb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
47	.875	1	-.468	.6423

Appendix 33

One Sample t-Test X_1: PCIb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	-8.083	1	-1.369	.1982

One Sample t-Test X_2: SOCSUPb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	.417	1	-.223	.8278

One Sample t-Test X_3: GEMOSb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	3.083	1	.38	.7114

One Sample t-Test X_4: erst b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	-7.667	1	-1.33	.2103

One Sample t-Test X_5: ORGCHb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	.167	1	-.134	.8961

One Sample t-Test X_6: WORST1b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	-7.083	1	-1.195	.257

One Sample t-Test X_7: WORST2b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	-2.583	1	-1.418	.1839

One Sample t-Test X_8: Column 36

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	-4.333	1	-.921	.3768

One Sample t-Test X_9: MANCONCb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	.167	1	-1.701	.1169

One Sample t-Test X_{10}: SOCb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	-.083	1	-1.478	.1675

One Sample t-Test X_{11}: CHALLb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	.333	1	-.899	.3882

One Sample t-Test X_{12}: RTIb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
11	1.333	1	.67	.5166

Appendix 34

One Sample t-Test X_1: PCIb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	-.235	1	-.263	.7958

One Sample t-Test X_2: SOCSUPb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	4.059	1	1.643	.1199

One Sample t-Test X_3: GEMOSb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	1	1	0	.

One Sample t-Test X_4: erst b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	-1.235	1	-.588	.5649

One Sample t-Test X_5: ORGCHb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	8.235	1	1.905	.0749

One Sample t-Test X_6: WORST1b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	-7.647	1	-2.712	.0154

One Sample t-Test X_7: WORST2b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	-.529	1	-.888	.3875

One Sample t-Test X_8: Column 36

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	.647	1	-.102	.9202

One Sample t-Test X_9: MANCONCb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	.824	1	-.362	.7217

One Sample t-Test X_{10}: SOCb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	.471	1	-1.538	.1436

One Sample t-Test X_{11}: CHALLb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	.941	1	-.112	.9122

One Sample t-Test X_{12}: RTIb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
16	.941	1	-.109	.9144

Appendix 35

One Sample t-Test X_1: PCIb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	-9.211	1	-2.694	.0148

One Sample t-Test X_2: SOCSUPb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	2.053	1	.566	.5781

One Sample t-Test X_3: GEMOSb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	1	1	0	.

One Sample t-Test X_4: erst b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	-5.526	1	-1.753	.0966

One Sample t-Test X_5: ORGCHb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	-2.158	1	-2.428	.0259

One Sample t-Test X_6: WORST1b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	-10.474	1	-3.139	.0057

One Sample t-Test X_7: WORST2b-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	-2	1	-1.623	.1219

One Sample t-Test X_8: Column 36

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	-2.684	1	-1.022	.3205

One Sample t-Test X_9: MANCONCb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	.579	1	-1.222	.2376

One Sample t-Test X_{10}: SOCb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	.632	1	-.824	.4209

One Sample t-Test X_{11}: CHALLb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	.474	1	-.96	.3496

One Sample t-Test X_{12}: RTIb-a

DF:	Sample Mean:	Pop. Mean:	t Value:	Prob. (2-tail):
18	.526	1	-1.31	.2068

APPENDIX 36

MORAY HOUSE INSTITUTE-HERIOT WATT UNIVERSITY

SPECIFIC LEARNING DIFFICULTIES (DYSLEXIA)

COURSE WORKBOOK

Gavin Reid
Coordinator Centre for Specific Learning Difficulties
Moray House Institute
Edinburgh

- Course Workbook

This Workbook is to be used in conjunction with the following text:

Reid, G. *Specific Learning Difficulties (Dyslexia) - A Handbook for Study and Practice.* Moray House Publications (1994).

Also recommended:

Reid, G (ed) *Specific Learning Difficulties (Dyslexia) - Perspectives on Practice.* Moray House Publications (1994)

Workbook Contents:

SECTION 1

Introduction to Specific Learning Difficulties

Reading: Handbook : Chapter 1.

The main aim of this section is to help you develop an awareness of the nature of specific learning difficulties.

The types of difficulties which make up the distinctive pattern associated with specific learning difficulties (dyslexia) will be discussed in more detail in the next section, but you need to have some awareness of these in order to appreciate the debate regarding definitions and terminology.

One of the definitions provided (see below) should be considered in relation to your own practice in schools:

Specific Learning Difficulties can be identified as distinctive patterns of difficulties, relation to the processing of information, within a continuum from very mild to extremely severe, which result in restrictions in literacy development and discrepancies in performances with the curriculum.

Centre for Specific Learning Difficulties (1953)

It is important that you also appreciate the different perspectives relating to specific learning difficulties and the importance of each.

Chapter 1 of the Handbook will provide you with some

- background information,
- definitions,
- perceptions and
- perspectives.

When you have read this Chapter, you should attempt the following tasks.

1. From the definitions provided (pages 2-5), select and comment on one, indicating how and why you find it helpful.

2. Provide an **extended definition** which could be meaningful to your colleagues in school and to parents.

3. Summarise the three perspectives provided on page 10 and explain why it may be useful to perceive specific learning difficulties in this way.

SECTION 2.

Identification and Assessment.

Reading: Handbook : Chapters 3, 4 and 5

This section aims to provide you with an awareness of identification and assessment of specific learning difficulties. Chapters 3, 4 and 5 of the Handbook, and the Supplementary Materials will provide sufficient information to help you complete the case study outlined below.

The following questions will help provide a focus for your case study.

1. What do you understand by the terms "Difficulties", "Discrepancies" and "Differences" in relation to assessment for specific learning difficulties.

2. From the different types of assessment described in Chapter 4 select two, describe them and indicate how useful you would find these strategies.

3. Construct an early identification strategy for specific learning difficulties.

CASE STUDY

Provide a pupil profile of a child with specific learning difficulties, and describe the process of identification and assessment for that pupil.

In your pupil profile you should include some information about

- **the school context** in school size, types of classes, number of children in class
- **the types of difficulties** displayed
- how difficulties were **identified**
- procedure for **monitoring and evaluation** of the assessment process
- details of **tests and assessment** strategies used.

SECTION 3

Teaching Approaches

Reading: Handbook: Chapters 6-10 (pages 91-176)

The aim of this Section is to help you develop an awareness of the different types of teaching approaches which can be utilised for children with specific learning difficulties. You will note that the chapters are divided into individualised approaches, support approaches, assisted learning and whole-school approaches. All of these approaches are valuable and can be utilised depending on the context and the needs of the pupil.

Chapter 13 of the Handbook provides an annotated bibliography, a section of which includes teaching approaches and this can be used to identify some suitable materials.

The questions below will provide you with some background which will help you develop a framework for a case study.

TASK

1. Which factors would you need to consider before devising a programme of work for a pupil with specific learning difficulties

2. Describe the main points of one individualised programme (pages 91-127) and one support strategy (pages 129-151) and provide a brief evaluation of how useful you may find them.

CASE STUDY

Using the information in Chapters 6-10 outline how you may develop a programme of work for a pupil with specific learning difficulties. You may use the same pupil as in the assessment case study in the previous section. You will, therefore, need to consider aspects such as:

- the assessment provided
- the school and classroom context
- the learning style of the pupil
- materials and resources
- relationships between class/small group provision.

SECTION 4

Learning Styles

Reading: Handbook: Chapter 11 (pages 179-198)

It is important to acknowledge the individual style of all children and dyslexic children may also differ in their preferred approach to learning. This section therefore aims to provide you with some background and a theoretical and practical understanding of learning styles together with some suggestions for assessing pupil's learning styles.

TASK

After reading the chapter, develop an extended observation schedule which can help you focus on the learning preferences of pupils. This is outlined on pages 193-198 and is also described in pages 73-76.

This schedule should include some details on how the pupil responds and deals with aspects of

- interaction
- communication
- movement

- organisation
- attention
- understanding
- success.

SECTION 5

Resources

This section is based on Handbook: Chapter 13 - Review of Resources (pages 221-266) which describes some resources under the following headings:

- General Texts,
- Reading,
- Teaching,
- Programmes,
- Assessment,
- Spelling,
- Writing,
- Learning Skills.

You should aim to select two resources - from different sections - and provide a trial critique of those resources. This can be a follow-up to the workshop task which you will be involved in during the one-day course (see next page).

WORKSHOP ACTIVITY:

Finding out about Specific Learning Difficulties.

GROUP ACTIVITY:

(a) Select a theme from the following list:

- Assessment
- Reading
- Spelling
- Cognitive Aspects e.g. Thinking Skills, Memory, Study Skills, etc.
- Teaching Programmes.
- Mathematics
- Writing.

(b) Using Chapter 13 and 14 of the Handbook, compile a reference list of books and articles relating to the theme.

(c) Select an article or book from your reference list and summarise it indicating:

- How well it covers the theme
- The viewpoints and perspectives it puts across
- How useful you found it
- Its shortcomings
- General critique

The aim of this exercise is to:

(a) familiarise yourself with some of the resources available on Specific Learning Difficulties

(b) critically examine an example of one such resource.

Your critique will be presented (about a ten minute presentation) to other group members.

APPENDIX - SUPPLEMENTARY MATERIALS

SPECIFIC LEARNING DIFFICULTIES

(DYSLEXIA)

CONTENTS

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INTRODUCTION

Recent publications (Pumfrey and Reason 1991: Reid 1994) have highlighted some of these issues relating to Specific Learning Difficulties. These include:

- Specific learning difficulties and the Curriculum.
- Differing professional viewpoints.
- Specific learning difficulties and developmental dyslexia: concerns over definitions.
- Assessment criteria and procedures.
- Potential versus performance.
- 'Top-down' versus 'Bottom-up' versus 'interactive' theories of reading.
- Subtypes of dyslexia.
- Early identification.
- Specific learning difficulties (dyslexia) in adulthood.
- Administrative/legal issues.

This list highlights areas of current concern but for the purpose of this paper four aspects in particular will be focused on. These are

- Definitions
- Assessment
- Support
- Training.

1. DEFINITIONS

When asked the question, what is Sp.L.D or Dyslexia? one can expect a response which may not be uniformly accepted by all working in this field.

In a major study of the literature (Hammill 1990) eleven definitions were presented.

This lack of uniformity over definitions may arise because groups of children with specific learning difficulties may present with different "performance characteristics". This is consistent with the view expressed by Stanovich (1991) that dyslexia can be seen as "galaxies or clusters" rather than as a discrete uniform condition.

Stanovich, therefore, argues that although dyslexic children would have similar CORE difficulties - that is those difficulties relating to phonological processing - they may well have different associated difficulties. This means they can have different patterns of difficulties within a continuum from very severe to very mild.

A recent definition from the Dyslexia Institute (1989) provides some indication of the broad range of difficulties which can be experienced.

"Specific Learning Difficulties can be defined as organising or learning deficiencies which restrict the students' competencies in information processing, in motor skills and working memory, so causing limitations in some or all of the skills of speech, reading, spelling, writing, essay writing, numeracy and behaviour"

The definition used by the Centre for Specific Learning Difficulties at Moray House, Edinburgh, also touches on some key aspects:

"Specific Learning Difficulties can be identified as distinctive patterns of difficulties, relating to the processing of information, within a continuum from very mild to extremely severe, which result in restrictions in literacy development and discrepancies in performances within the curriculum.

Centre for Specific Learning Difficulties (1994)
Moray House Institute of Education.

The above definition indicates that one is concerned with a *specific pattern of difficulties:* that information processing is a key aspect: a continuum of difficulties can be seen as discrepancies in performances is also of importance in defining the difficulty.

Specific Learning Difficulties and Dyslexia

Another recent trend is the merging of the two labels 'Sp.L.D' and 'Dyslexia'.

A recent definition of 'Dyslexia' by the British Dyslexia Association (1989) was as follows:-

'Dyslexia can be defined as a specific difficulty in learning, constitutional in origin, in one or more areas of reading, spelling and written language which may be accompanied by difficulty in number work. It is particularly related to mastering and using written language (alphabetic, numerical and musical notation) although often affecting oral language to some degree'.

This definition is quite closely related to the definition used by the Dyslexia Institute to describe 'Specific Learning Difficulties'.

It has been recognised (Pumfrey and Reason, 1991) that the two concepts 'Specific Learning Difficulties' and 'Dyslexia' are becoming closer in meaning. The effect of this is a broadening of the two definitions, and it appears likely that as this continues, one of the labels will become redundant.

Operational Definitions:

The key elements therefore include the following:-

- the identification of children with particular difficulties in reading, spelling and/or handwriting which cannot be accounted for by general learning difficulties
- the ruling out of other possible factors for lack of progress in attainments such as disrupted education, sensory impairment, emotional difficulties or lack of motivation.
- discrepancies in performances
- other indicators may also include:
- familial history

- speech and language developmental delay
- clumsiness/motor difficulties
- difficulties with auditory and/or visual discrimination
- difficulties with ordering and sequencing information
- letter and number confusion
- familial history.

In summary, therefore, an operational definition of specific learning difficulties would include some of the following areas of difficulty:

- reading, writing, spelling
- phonological/visual difficulties
- information processing
- motor coordination
- speech and language processing.

Some of these difficulties can be seen in the list below (Crombie,1991)

1. Confusion between left/right (Arkell).
   Left-right (body parts) Miles.

2. Difficulty in repeating polysyllabic words (Miles).

3. Difficulty in remembering a sequence of digits (forwards) (Miles).

4. Difficulty in remembering a sequence of digits (reversed) (Miles).

5. b-d confusion (Miles).
   Confusion of letters similar in shape (Arkell).

6. Familial incidence (Miles)
   Other bad spellers in family (Arkell).

7. Difficulty with fairly simple subtraction (Miles).

8. Difficulty in learning tables (Arkell).
   Difficulty in remembering multiplication tables (Miles).

9. Difficulty in remembering the sequence of the months (forwards) (Miles.
   Difficulty in sequencing: alphabet, months of the year (Arkell).

10. Changing sequence of words: she is/is she (Arkell).

11. Difficulty in saying the months in reverse order (Miles)

12. Transposals in reading and spelling words: e.g. left/felt (Arkell)

13. Omission of word or words or insertion of words (Arkell)

14. Reversals e.g. was/saw (Arkell).

16. Confusion of small words: of/for/from (Arkell)

17. Foreshortening: rember-remember (Arkell)

18. Fusion: (up) (Arkell).

19. Badly formed letters, or, if letter shape is correct, formed in an unconventional way (Arkell).

20. Capitals left out or in the wrong places (Arkell)

21. i's not dotted, t's not crossed, l's crossed (Arkell)

22. Omission or confusion over punctuation and syntax (Arkell).

2. ASSESSMENT AND IDENTIFICATION

Since there are different theoretical standpoints regarding Sp.L.D and Dyslexia, it follows that different approaches to assessment will be evident.

Regardless of whichever approach(s) is to be followed an important starting point should include:

- Sensory Assessment

  i.e. Hearing Test

  Sight Test

Following this one can conduct an assessment focusing on three factors:

- The Child
- The Curriculum
- The Learning Process

Assessment should therefore aim to:

(a) identify strengths and weaknesses in the pupils' abilities;

(b) obtain an indication of the pupils' current level of performance in attainments;

(c) provide an explanation for the pupils' lack of progress;

(d) identify aspects of the pupils' performance in reading, writing and spelling, which may typify a 'pattern of errors';

(e) identify areas of competence;

(f) obtain an understanding of the pupils' learning style;

(g) ensure the curriculum is appropriate for the child.

- **Child-centred**

Child-centred assessment focuses on skills and abilities. These can take the form of identifying strengths and weaknesses. This form of assessment can sometimes be referred to as a deficit model because the implication is that the child is not performing because of some particular deficit which in some way restricts the acquisition of skills necessary for tasks such as reading.

Such tests include norm-based standardised assessments which will be discussed later and can adopt the following perspectives:

- **Psychometric Perspective**

  This implies the using of test materials to obtain some kind of measure of the pupils' abilities. The abilities which are tested are viewed by some as important sub-skills of learning such as memory, perception and auditory skills.

  An example of a psychometric tests is the WISC-R, since it provides information which 'measures' progress and levels However, psychometric tests can and should be used diagnostically to help identify the difficulties and strengths.

- **Attainment Measures**

  These tests measure educational achievement and are usually standardised - reading, spelling and mathematics can be assessed in this way. They, therefore, provide normative scores such as reading ages, or percentiles.

  They can also provide qualitative data which can give information on types of errors and level of pupils' performance.

- **Screening Packs and Checklists**

  These are usually criterion-referenced assessment but normally focus on strengths and weaknesses in a child's performance.

PRELIMINARY SCREENING

- **READING:**
  Reading level to nearest year

	Predominantly	Occasionally
Limited sight vocabulary		
Sound Blending difficulties		
Doesn't use contextual clues		
Doesn't attempt unknown vocabulary		
Poor eye tracking		
Difficulty keeping the place		
Mildly deficient speech development		
Limited supply of interesting reading material		
Limited vocabulary		
Naming deficit		
Uses associative words		

- **WRITTEN WORK:**
  Spelling level to nearest year

	Predominantly	Occasionally
Poor articulation		
Directional configuration constancy		
Difficulty in associating visual symbol with verbal sound		
Poor auditory discrimination of vowels		
Liability to sub-vocalise sounds prior to writing		
Bizarre spellings		
Inclination to perseverate		
Lack of knowledge of serial probabilities		
Poor handwriting		
No joined handwriting		
Poor organisation of work on page		

(tick if appropriate)

- **GENERAL FACTORS:**

	(Very prominent)	(Present)	(Slightly)	(Not)
	(Tick appropriate column)			
Fluctuations in concentration	_____	_____	_____	_____
Clumsiness	_____	_____	_____	_____
Behavioural difficulties	_____	_____	_____	_____
Difficulties in organising themselves	_____	_____	_____	_____

- Curriculum Based Assessment

Curriculum based assessment indicates that the assessment process will be relevant to the actual curricula work in which the pupil is involved. By implication than can link the assessment process with learning and teaching. This strategy has clear advantages such as those outlined in Working Paper No.4 Assessment 5-14 (September 1990). Such a strategy implies:

(a) clear teaching and learning aims and therefore the criteria for success will be readily identified

(b) task will be matched to the pupil's previous experience and present abilities

(c) flexible teaching methods which enables reflection on success of progress and considers each pupils' approach to learning

(d) an awareness of the importance of pupil motivation, thus tasks should be challenging and consistent within an open, creative atmosphere and encourage a problem solving approach.

The above document therefore suggests different modes and methods of assessment to accommodate the above aims - these include:

(i) 'Staggered' assessment, i.e. the teacher does not necessarily assess all of the learning aims at once.

(ii) Assessment through talk - this would include questioning pupils about their understanding and their ideas

(iii) Assessment through writing - this would include pieces of writing of different lengths i.e. short answers and longer pieces of work.

(iv) Assessment through Practical Activities - thus the skills involved in planning and carrying out experiments and in working with others would be assessed.

- **Process-focused Assessment**

This form of assessment looks at the processes involved in learning and therefore will consider both the child and the curriculum in addition to the learning style and strategies of the child.

Usually this form of assessment is integrated with the teaching and the process of the test is more important than the outcome. Reuven Feuerstein theory of Instrumental Enrichment includes a process-based assessment - 'Learning Potential Assessment Device' which focuses on the ability of the child to grasp the principle underlying a problem. The important aspect of this type of assessment, sometimes called assisted or dynamic assessment, is important but the main focus should be directed to how the child learns - how he/she obtains the correct (or the wrong) response.

Additionally, it is important to note which cues and what kind of help the child requires in order to obtain the correct response. These points have helped to provide some insight into the processes of learning for that child and enables some direction in relation to appropriate teaching materials and programmes.

Summary

- Assessment should be an integral part of learning and teaching
- Assessment should, however, not necessarily dominate learning and teaching.
- Assessment should be based on what pupils say, write and do.
- Assessment occurs mainly on a day-to-day basis.

A COMPONENTS APPROACH

The limitations of traditional assessment procedures such as intellectual/attainment discrepancies and cognitive deficit diagnoses has led to researchers explaining alternative criteria and procedures that could assist in the diagnosis of reading disabilities

Thus assessment can be directed to a diagnosis on the basis of the child's performance on reading-related tasks. This therefore links diagnosis with teaching.

The main principles of the components approach to assessment are:

(i) it should distinguish the dyslexic child from the slow learner child who displays reading difficulties

(ii) it should distinguish the dyslexic child from the child who has a comprehension deficit in reading

(iii) it should be easily adaptable for classroom use and available for the teacher and psychologist

(iv) the complete diagnostic procedure should be comprehensive enough to include quantitative as well as qualitative information that is relevant to the reading process.

The rationale of the components approach concerns

(i) the identification of the factors which determine performance

(ii) the components of reading

(iii) and how do we evaluate the child's functioning in relation to these components.

Reading

Some Components

- Verbal comprehension
- Phonological awareness
- decoding speed
- listening comprehension

It might be argued that decoding and comprehension are the two most important components of reading.

Decoding versus Comprehension

In normal readers these two aspects should complement each other. Thus as a child reads (decodes the print) meaning is simultaneously expressed.

Research suggests that:

COMPREHENSION is a controlled process, i.e. is attention demanding, capacity limited.

DECODING is an automatized process, i.e. not attention-demanding, does not require reader's control

In dyslexic children decoding does not readily become automatized and therefore requires

(1) attention-demanding operations

(2) control from the reader.

These are features of comprehension and thus it can be argued that dyslexic readers when decoding, draw on some of the capacities which should be focusing on comprehension and therefore weakens the potential for comprehension while reading.

It has been argued therefore (Aaron 1989) that the differences which exist in reading achievement are due to factors associated with either decoding or comprehension or a combination of both.

To differentiate between these two abilities, it is necessary to assess them independently.

Thus reading comprehension has to be assessed without involving the decoding of print.

Reading Comprehension and Listening Comprehension

It has been argued that reading comprehension and listening comprehension share the same cognitive mechanisms and that the two forms of comprehension are related, Palmer (1985) obtained a highly significant correlation between these two forms of comprehension "reading comprehension can be predicted almost perfectly by a listening measure - therefore a test of listening comprehension can be used as a measure of reading comprehension.

Early Years

In the early reading stages there seems to be a close relationship between decoding and reading comprehension, so one can use a decoding assessment procedure in the early years. One must, however, attempt to use a task which is closely related to decoding but not influenced by environmental or contextual factors.

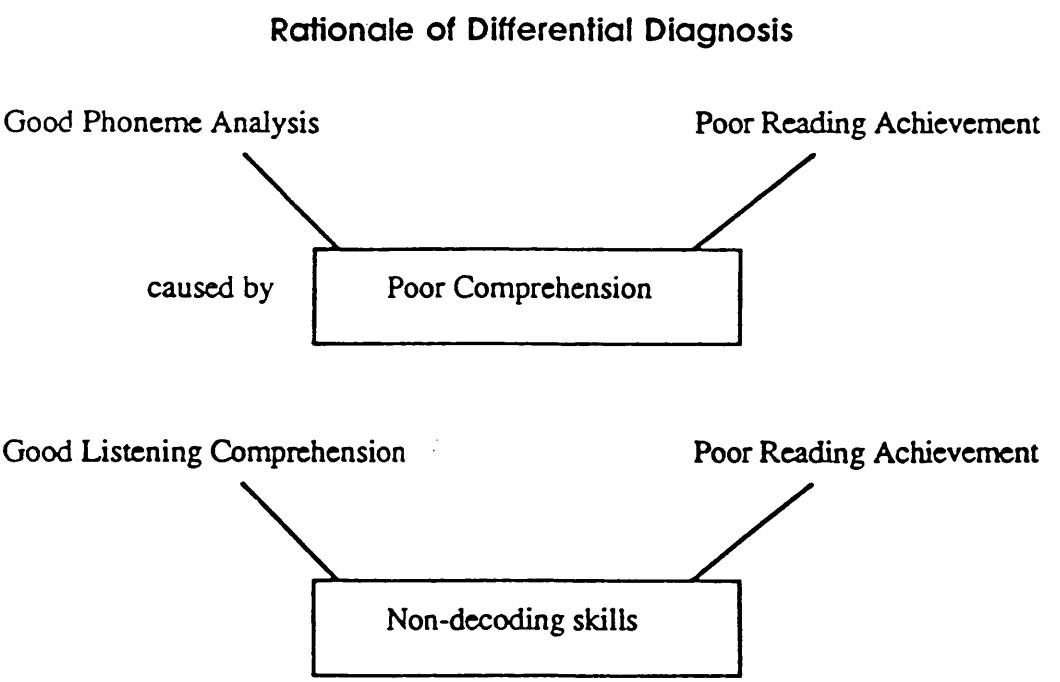
It has been shown that phoneme analysis skills (phonological awareness) is a good predictor of reading ability (Bradley and Bryant)

Therefore, according to the components approach, assessment should include:

1. DECODING TEST (NON-WORDS READING TEST)
2. WORD READING TEST
3. PHONOLOGICAL AWARENESS TEST
4. LISTENING COMPREHENSION TEST
5. READING COMPREHENSION TEST.

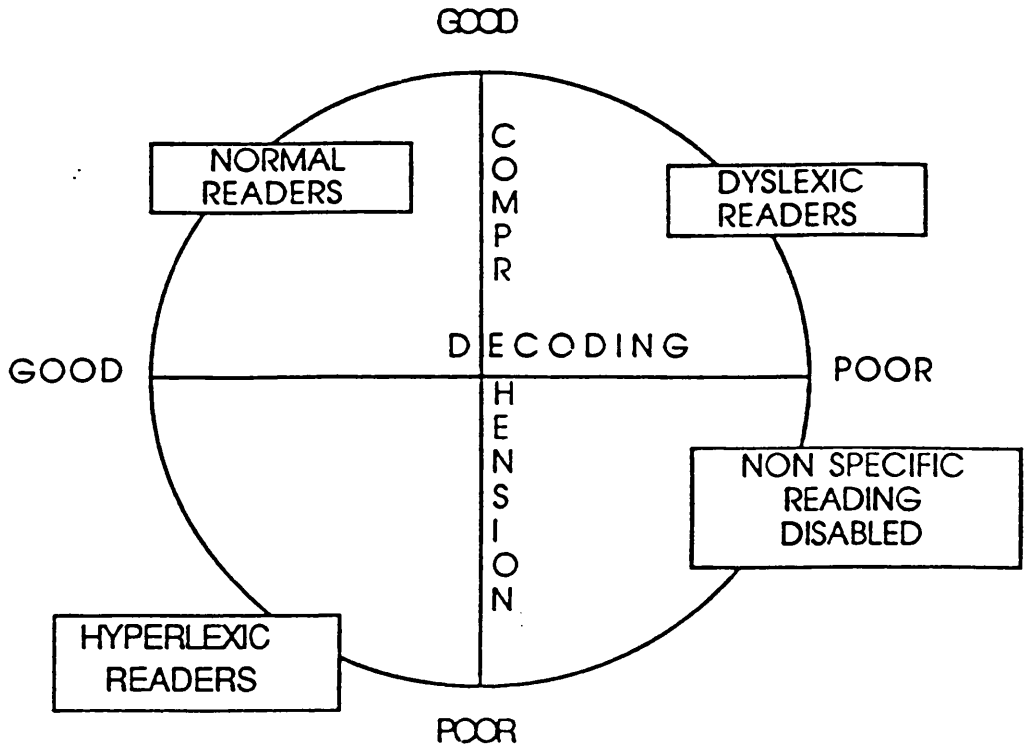
This procedure can be readily carried out by the teacher

RATIONALE OF DIFFERENTIAL DIAGNOSIS



From the above rationale Aaron (1989) has indicated four different categories of reading disorders.

See Fig.1 below:



An interesting difference is drawn here between hyperlexic readers and dyslexic readers.

Hyperlexia

This term was initially used by Silberberg and Silberberg (1967). These children would be at the other end of the continuum of reading difficulties from 'dyslexia' Aaron suggests the comparison shown below (see Fig.2) as illustrating the two extremes of reading disorder.

Differences between hyperlexia and developmental dyslexia

Hyperlexia	Dyslexia
Good decoding	Poor decoding
Poor listening comprehension	Adequate listening comprehension
Reading comprehension inferior to decoding	Reading Comprehension superior to decoding
Spelling, above average	Spelling, below average
Below average IQ	Average or above average IQ
Bottom-up processing, data driven	Top-down processing, concept driven
Use of grapheme-phoneme-relational rules and word-specific addressing of pronunciation	Use of print-to-meaning; direct access and word-specific addressing of pronunciation
Clinical neurological symptoms often present	Clinical neurological symptoms usually absent

This in fact emphasizes that the key components of the reading process which are to be assessed are

(i) decoding
(ii) listening/reading comprehension.

The components approach is a diagnostic procedure which does not rely solely on norm-referenced, standardised tests, but can be applied with locally developed assessment materials and from that programmes can be developed in the context of the curriculum and the classroom activities.

OBSERVATIONAL ASSESSMENT

The following is a list of headings with can be used as a guide in developing an observation schedule. This can be particularly useful to the class teacher as well as others such as learning support teachers and psychologists:

1. Interaction
   - (i) pupil - teacher interaction;
   - (ii) does pupil switch off?
   - (iii) does pupil interact with peers?
   - (iv) nature of that interaction.
2. Learning Style
   - (i) reliance on concrete aids;
   - (ii) memory strategies;
   - (iii) listening/auditory skills;
   - (iv oral skills;
   - (v) visual approaches.
3. Motor Factors
   - (i) writing skills;
   - (ii) colouring;
   - (iii) tracing;
   - (iv) copying.
4. Organisational Factors
   - (i) sequence of activities;
   - (ii) desk;
   - (iii) jotter/books in order;
   - (iv) teacher input.
5. Attention/Concentration
   - (i) focus on task;
   - (ii) major sources of broken attention;
   - (iii) concentration span in different tasks.

6. Emotional Factors

(i) signs of tension;

(ii) self image;

(iii) motivation and interest;

(iv) self-expectation.

SUPPORT

Programmes and Strategies

There is a wide choice of specific programmes, and of useful strategies which often utilise some of the key principles of these programmes. The teacher can use these to help support children with specific learning difficulties.

The approaches can be divided into the following:

Individualised Programmes

- these are highly structured, can be seen as essentially free standing and form a central element of the overall strategy for teaching children with specific learning difficulties:

Support Approaches and Strategies

- these may utilise the same principles as some of the individual programmes, but can be used more selectively by the teacher thus making it more possible to integrate them more easily within the normal activities of the curriculum:

Assisted Learning Techniques

- these are strategies which may utilise different and various methods but a central, essential component is the aspect of learning from others. These programmes could therefore involve either peer or adult support and interaction and utilise some of the principles of modelling:

Whole-school approaches

- these recognise that dyslexic difficulties are a whole school concern and not just the responsibility of individual teachers. Such approaches require an established and accessible framework for consultancy, whole-school screening, and monitoring of children's progress. Early identification is a further key aspect of a whole-school approach.

Some examples of these programmes and strategies are shown below:

Figure 1.

1. INDIVIDUALISED APPROACHES:

Alphabetic Phonics
Alpha to Omega
Bangor Dyslexia Teaching System
DATAPAC
DISTAR
Hickey Language Course
* Letterland
Reading Recovery Programme (Clay)
* Spelling Made Easy
Slingerland
Orton-Gillingham Method
Teaching Reading through Spelling (Kingston)

2. SUPPORT APPROACHES AND STRATEGIES

Aston Portfolio
Simultaneous Oral Spelling
Counselling Approaches
** Phonic Codecracker
Microcomputer Software Programmes
Neuro-Motor Programmes.
Reason and Boote - Reading and Spelling
Study Skills
Quest Materials
Visual Acuity Activities

3. ASSISTED LEARNING PROGRAMMES

Apprenticeship Approach (Waterland)
Paired Reading
Peer Tutoring
Reciprocal Teaching
Cued Spelling

4. WHOLE-SCHOOL APPROACHES

Counselling Strategies
Screening materials
Study Skills Programmes
Thinking Skills
Consultancy

* These can also be used as the main teaching programme for the whole class.
** This can also be used as an individualised programme.

(From G.Reid. Handbook for Study and Practice (1994).

Some key elements concerning teaching children with Specific Learning Difficulties are:

(i) variety of approaches

(ii) matching the curriculum and teaching approaches to the learning style of the child

(iii) to develop motivation and maintain positive self-esteem.

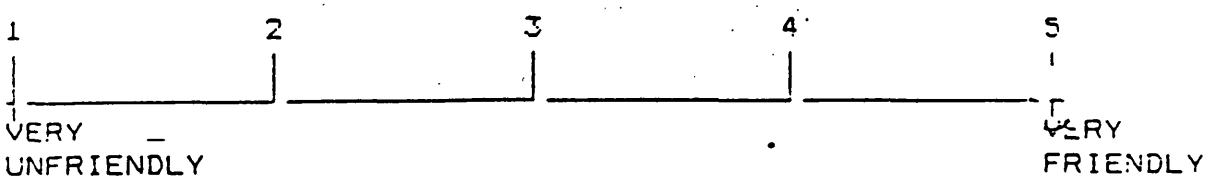
Thus a menu of approaches and strategies would be useful in addition to consultation with class and subject teachers on aspects of differentiation.

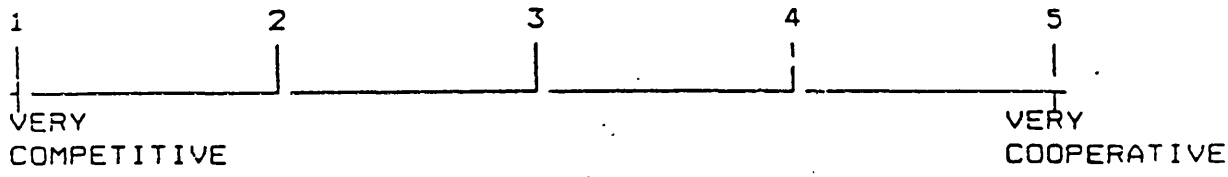
Recommendations (from Reason and Pumfrey (1991) (p.146)

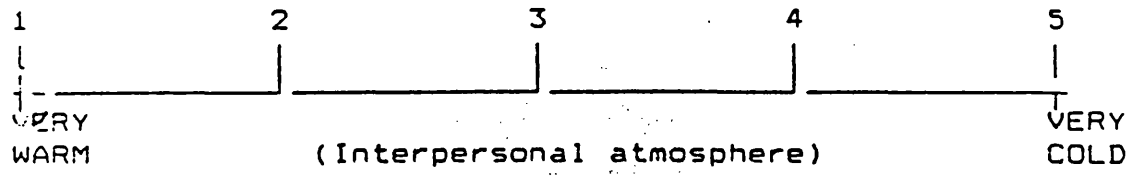
- The symbiotic relationship between assessment and teaching be appreciated by all professionals involved with pupils identified as having Sp.L.D.
- All children with Sp.L.D. should follow the whole curriculum
- Differentational of the delivery and/or the recording of the curriculum, but not the content, be provided for pupils with Sp.L.D.

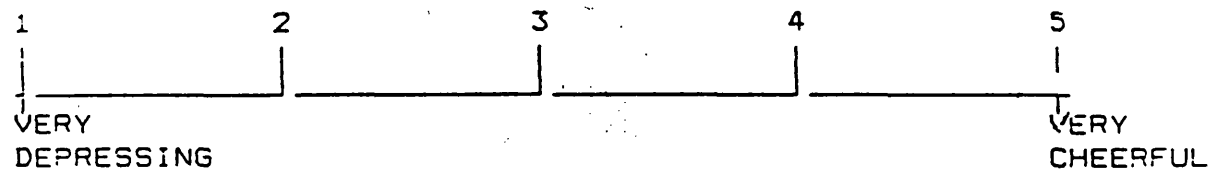
Appendix 37

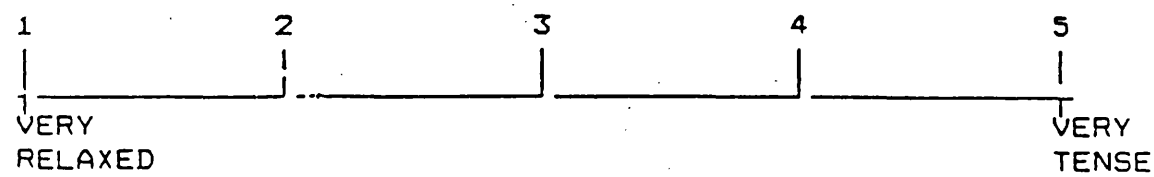
Listed below are a number of characteristics which describe the interpersonal atmosphere within workplaces. I would like you to circle the point on each scale that best describes the interpersonal atmosphere within your school.

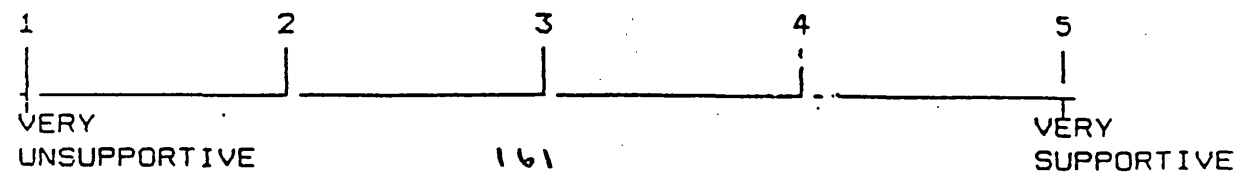




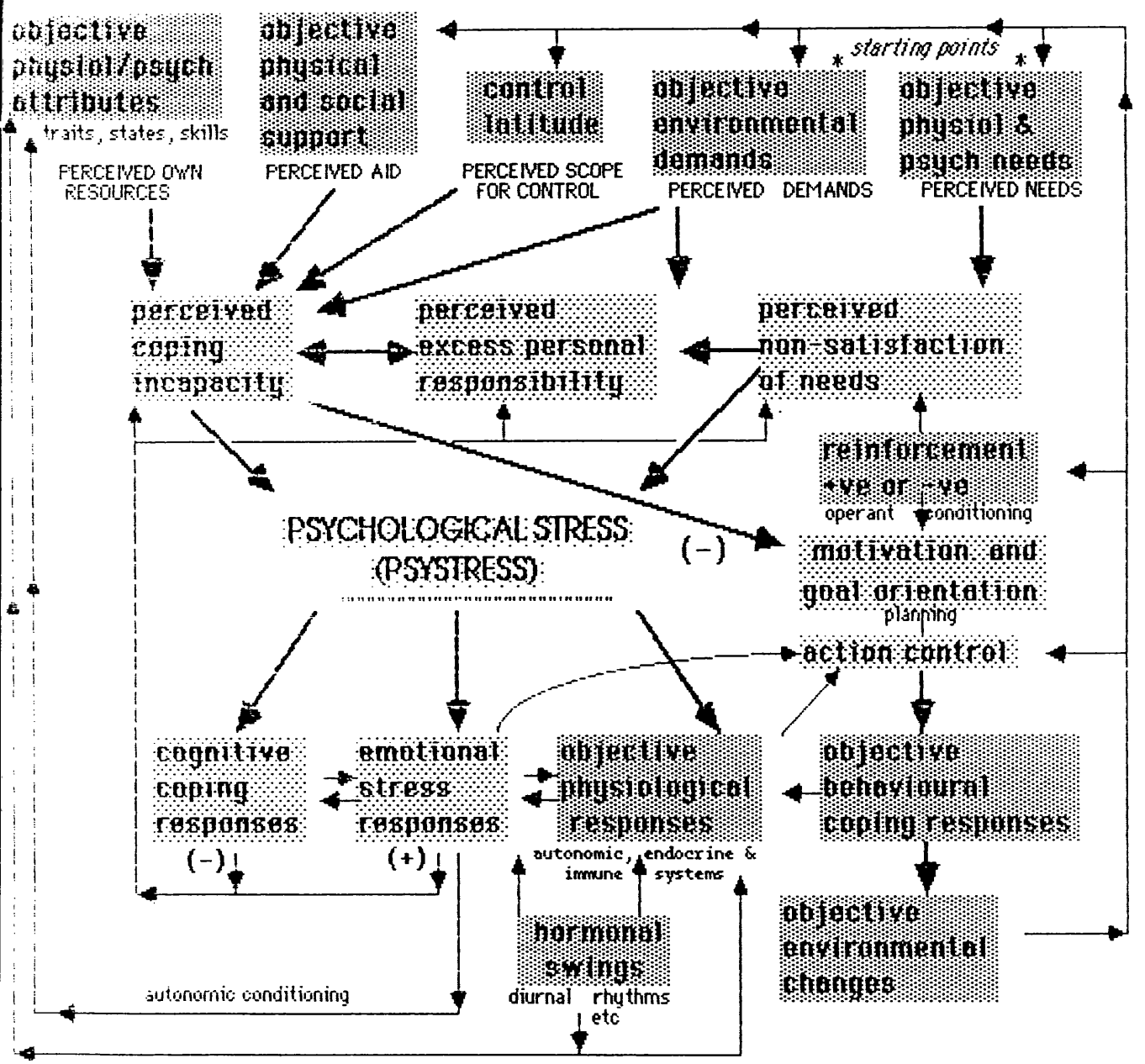








APPENDIX 38



A THEORETICAL MODEL OF PROCESSES INVOLVED IN PSYCHOLOGICAL STRESS CAUSATION, CONTINUATION & CHANGE

APPENDIX 38

FOCUS

- TEACHER WORK STRESS

- ORGANISATIONAL CHANGE

- IN-SERVICE NEEDS

1. TEACHER STRESS

PERCEIVED COPING INCAPACITY

IMPORTANCE OF CONSTRUCTIVE FEEDBACK

PHYSIOLOGICAL RESPONSE

MOTIVATION

"WORKPLACE ASPIRATIONS"

"TEACHER OVERWHELM"

- PERCEIVED NON-SATISFACTION OF NEEDS

"NEEDS AND WORTHINESS"

SELF

SCHOOL

- SUPPORTS AND DEMANDS

"DEGREE OF MISMATCH"

ROLE FACTORS

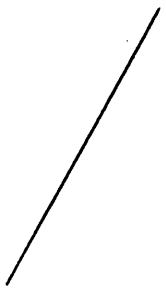
- RESPONSIBILITY AND CONCERN

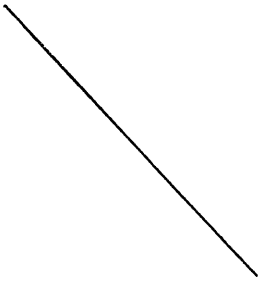
LOCUS OF CONTROL

MANAGEMENTS PSYCHOLOGICAL DISTANCE

2 ORGANISATIONAL CHANGE

- NATURE OF SCHOOL ORGANISATION





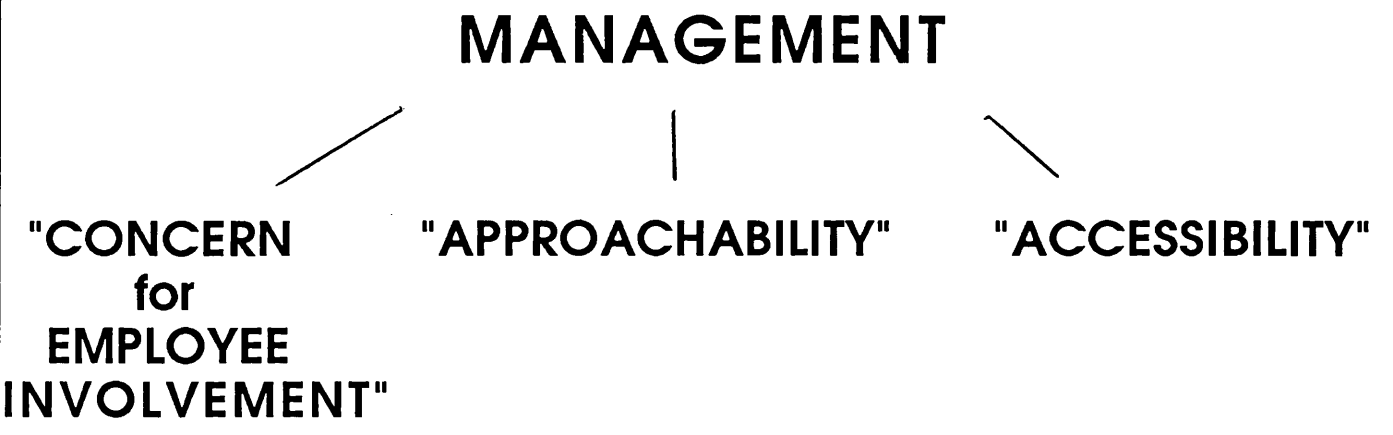
FORMAL/INFORMAL

DEGREE OF CONTROL
and
AUTONOMY

- ORGANISATIONAL CLIMATE

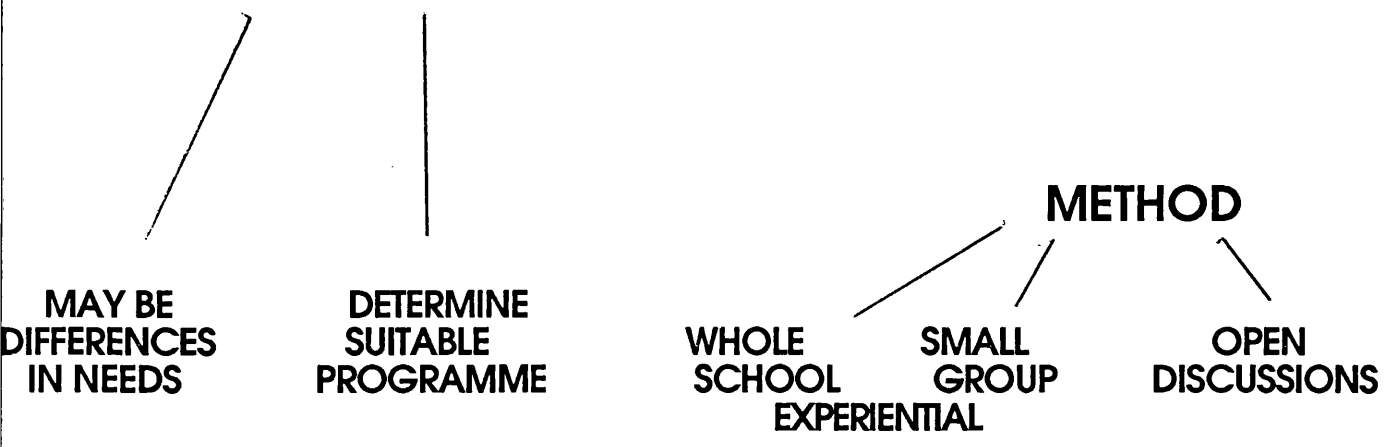
ACCOMMODATE TO INDIVIDUAL DIFFERENCES	DIFFERENCES between PERCEPTIONS and REALITY	DEGREE of ACCOMODATION

- ROLE OF MANAGEMENT



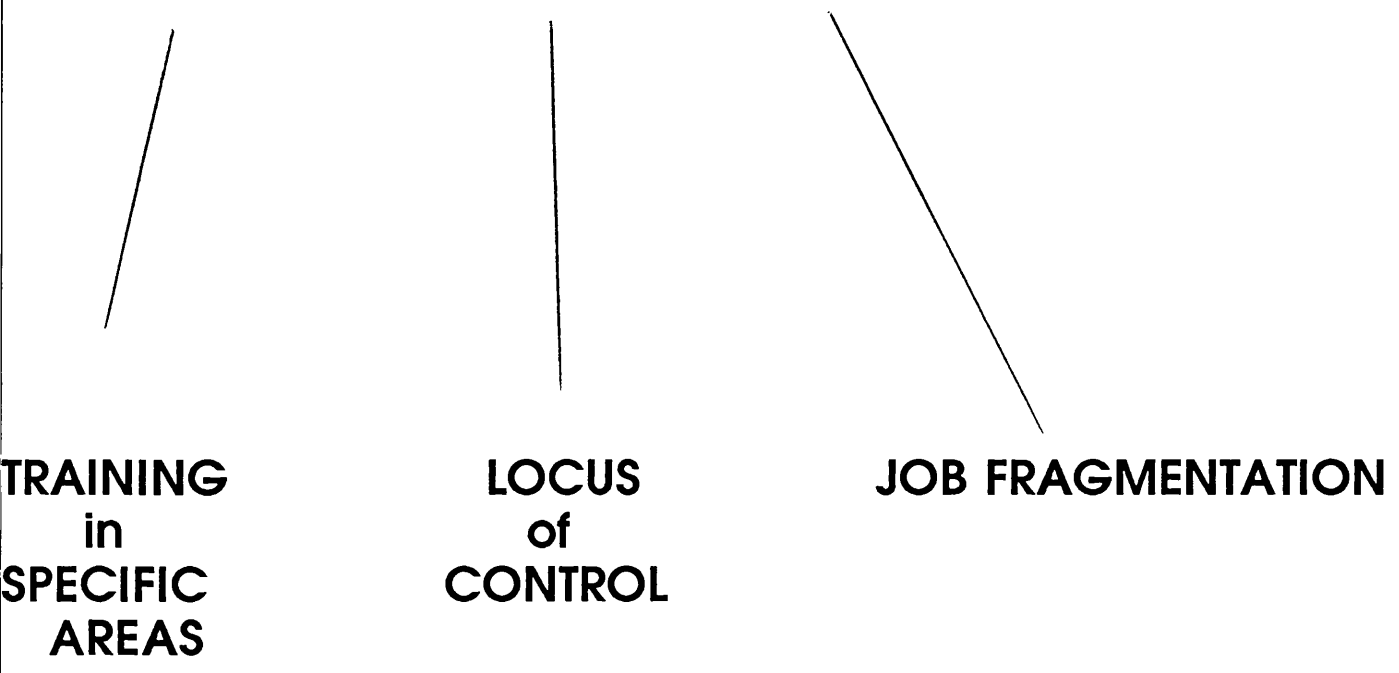
3. IN-SERVICE NEEDS

- WHOLE SCHOOL DIMENSIONS



- SCHOOL COMMUNICATION SYSTEM
- INTRODUCTION, PACE AND EXTENT OF CHANGES
- SCHOOL SUPPORTS
- RESPONSIBILITIES OF STAFF/MANAGEMENT
- DEGREE OF DEMOCRACY
- TIME MANAGEMENT

- **CURRICULUM DEMANDS**



- **INDIVIDUAL COUNSELLING**

PRACTICAL ASPECTS

WHO ?

WHEN ?

PERCEPTIONS

PROBLEMS

INABILITY TO COPE

OR

LEGITIMATE STAFF ROLE

TRANSFER FROM INDIVIDUAL TO GROUP

HOW

IMPLICATIONS

IN-SERVICE TRAINING ON ORGANISATIONAL CHANGE

SHOULD LEGITIMATELY FOCUS ON:

- RECOGNITION AND THE DEALING WITH WORK STRESS
- ROLE OF ORGANISATION
- DIMENSIONS OF ORGANISATIONAL CLIMATE
- ROLE OF MANAGEMENT
- SCHOOL COMMUNICATION FACTORS

AND THIS SHOULD BE ACHIEVED THROUGH A COMBINATION OF

WHOLE-SCHOOL DISCUSSION

INDIVIDUAL COUNSELLING

CURRICULAR TRAINING

APPENDIX

Miscellaneous Items

Appendix 40

The Open University

School of Management
The Open University
Walton Hall
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Telex (0908) 825061
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RESEARCH DEPARMENT
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DP/acm

18 December 1991

Gavin Reid Esq
Project Co-ordinator
Dept of Professional & Curriculum Support Studies
Institute of Education
Heriot-Watt University
Moray House
Holyrood Campus
Holyrood Road
Edinburgh
EH8 8AQ

Dear Mr Reid

Thank you for your letter of 11 December.

The most comprehensive references to the Business Organisational Climate Index are given in :

'Organizational Behaviour in its Context : The Aston Programme III', D S Pugh and R L Payne (eds) 1977, Saxon House, Gower Press.

This book brings together a number of studies which use the capitals BOCI in a research setting. R L Payne and D C Pheysey 'Stern's Organisational Climate Index : A reconceptualisation and application to Business Organisations', *Organizational Behaviour and Human Performance*, Vol 6, No. 1, pp 77 - 98, 1971, gives the original presentation of the scale and its uses. The book gives other references. If you would like to follow forward this methodology then you could write to Professor R L Payne, Dean of the Manchester Business School, Booth Street West, Manchester, M15 6PG. He will be able to give you information about the further uses of this scale.

I hope this information is useful to you. Do you know of a book which I have written with a colleague about studying for a PhD which may help you? It is:

...../2

E M Phillips and D S Pugh 'How to Get a PhD : A handbook for students and their supervisors', Open University Press, 1987. The book deals with process issues which are key to understanding the nature of the PhD, coping with the formal system, managing your supervisor, etc.

Best wishes for your PhD.

Yours sincerely

pp Prof Derek Pugh
Director of Research

APPENDIX 41

Glasgow University Psychology Department

POST-GRAD AND DEPARTMENTAL STAFF SEMINARS

programme for January to April 1992

These seminars are distinct from the invited speaker colloquia

Talks will be given in T413 ,Adam Smith Bldg

on Tuesdays , 1.00 - 2.00 pm

14 Jan	**J W Hinton**	Concentrations of sodium and potassium in saliva indicating psychological stress and arousal level
28 Jan	**R. Stewart**	Ambulatory Psychophysiology: Development of a Miniature Telemetry System (pulsed infra-red), for use in work-stress research
4 Feb	**J. Henderson**	Parents' perception of schools and choice
11 Feb	**G. Reid**	Psychological stress in schools: the influence of organizational structure
18 Feb	**J. Doran**	Deaf childrens' reading skills
3 Mar	**P O'Donnell**	HCI evaluation methods
17 Mar	**A. Al-gheraibi**	Achievement Motivation and some correlates among managers in Saudi Arabia

APPENDIX 42

PSYCHOLOGICAL STRESS IN SCHOOLS.

THE INFLUENCE OF ORGANISATIONAL STRUCTURE.

INTRODUCTION

This research is motivated by the desire to develop an understanding of the organisational climate construct, its antecedents and consequences in schools. Within this framework, the study seeks to examine several major aspects. The first is to ascertain the kind of perceived organisational climate that exists in schools and to examine the reliability and interdependence of climate dimensions.

The next aim of the research is to explore the differences in climate perceptions according to teachers' personal and career patterns. The third aspect will investigate the relationship between climate dimensions and measures of perceived stress and to assess the effectiveness of change. Thus the reliability and interdependence of a cognitive stress model (Hinton, 1991) will be examined and experimental procedures will be implemented.

The procedure for implementing this study will be:

1. Select sample to include Primary and Secondary
2. Administer the following:
   - (i) Business Organisation and Climate Index (Aston)
   - (ii) Perceived Organisational Change
   - (iii) Personal Organisation and Planning Scale
   - (iv) Cognitive Appraisal Stress Test
   - (v) Perceived Non-satisfaction of needs.
   - (vi) General Motivation Scale
   - (vii) Emotional Response to Stress Test
   - (viii) PSYSOM
   - (ix) Eysenck Personality Inventory
   - (x) Perceived Responsibility and Concern.
3. From this data the following factors will be examined:
   - (i) Organisational climate factors
   - (ii) Perceived stress factors
   - (iii) Comparisons between schools.
4. An experimental programme will then be developed to be administered to two of the six schools.

5. An In-service booklet will be developed to include the following aspects:

    1. Organisational Climate
    2. Organisational Stress
    3. Teacher Stress
    4. Dealing with the Difficulties
    5. Constructing a Healthy Organisation
    6. Personal Stress Programmes

6. The In-service booklet will be piloted and evaluated.

PSYCHOLOGICAL STRESS IN SCHOOLS:

the

INFLUENCE OF ORGANISATIONAL STRUCTURE

1. BACKGROUND

2. STRESS MODEL

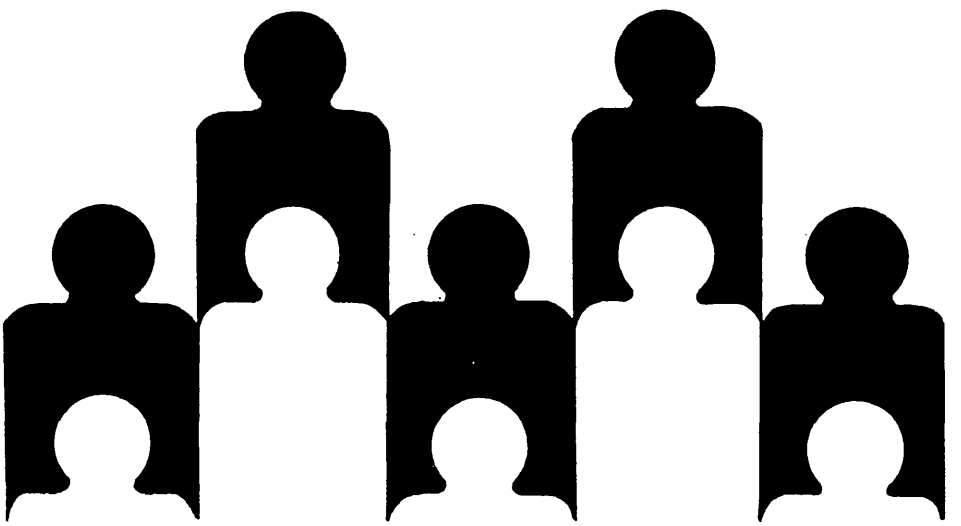
3. PILOT STUDIES

4. RATIONALE FOR MAIN STUDY

5. PROPOSALS

APPENDIX 43

LINKS



Volume 16, No. 3

SUMMER, 1991—£2.00

PERFORMING RIGHT SOCIETY

Shirley Northey

What is PRS?

PRS has been around for over seventy-five years protecting the interests of composers, lyricists and music publishers worldwide. It represents 23,000 of its own members but PRS is not just concerned with British composers. Through agreements with affiliated societies all over the world, PRS is able to protect its members' interests abroad. Whilst PRS collects royalties for the performance of foreign composers' works in the UK, the foreign societies make similar royalty collections for performances of British composers' works abroad so that British songwriters can benefit from the popularity of their music abroad and vice versa.

In very simple terms, PRS works by issuing licences to music users, usually an annual 'blanket' licence to the proprietor of the premises where the music is use, which allows the playing of practically any copyright music. The money PRS collects is then distributed to the copyright owners of the music that has been used. PRS is non-profit making which means that, apart from the deduction of administration costs, all the royalties it collects are distributed to the people who actually write or publish the music not to the record companies, singers or artists.

PRS exists to make sure that the people who actually write the music get what is due to them.

Another function of PRS is to encourage the performance and teaching of contemporary music. For many years it has donated money to a variety of organisations concerned with these aims. In 1989 for example, PRS donated over £145,000 to more than one hundred and thirty organisations

PRS Composers in Education Scheme

In 1989, as part of its 75th anniversary celebrations, PRS established a new scheme called PRS Composers in Education. The scheme is aimed at encouraging composers to work with teachers and students at secondary level, with particular emphasis on composing in the GCSE examination syllabus.

The Scheme is now in its second year with funding set aside for a further two years. The Scheme is administered by PRS in consultation with the Regional Arts Associations, the Arts Councils of Great Britain and Northern Ireland and The Music Advisers' National Association.

Applications are considered from LEA's, Colleges of Education, Arts Centres, groups of schools or individual schools. If a project is accepted, it will normally receive from PRS one third of the funding required to meet the costs of the composer. In special circumstances up to half the funding may be provided by PRS but there is normally a ceiling of £5,000 from PRS for any one project.

Such projects might involve a composer spending some months with a school or group of schools, working with pupils in close collaboration with teaching staff, using the resources and instruments at the school's disposal or along similar lines but involving student teachers. An example of one of the projects currently funded by the Scheme involves Rectory Comprehensive and Clarendon School in the South East of England. PRS composer member, Sandy Loewenthal spends two days a week in the schools (the former has 1,000 pupils and the latter is a special school for children with moderate learning difficulties) working with second year, GCSE and 'A' level classes. One of the aims at the outset of the project was for the composer to help develop links between the two schools and this seems to be working well.

If you would like to know more about the PRS Composers in Education Scheme and obtain an application form for projects commencing in September, 1992, please contact Lesley Bray, Public Relations Manager of PRS, 29/33 Berners Street London W1P 4AA, tel: 071 927 8322.

"SUPPORTING THE SUPPORT TEACHER" STRESS FACTORS IN TEACHING CHILDREN WITH SPECIFIC LEARNING DIFFICULTIES

Gavin Reid, Edinburgh

Background

Recent studies highlight the widespread nature of teacher stress (Cole 1989, Trendall 1989, Capel 1989, NFER 1989) which in fact show that severe stress is being experienced by more teachers. Research has focused on different aspects of stress in teaching including inter-personal factors within school (Lucas, Wilson and Hart 1986), schoo organisational factors (Trendall 1989), the pace an extent of educational change (Cole 1989, Reid 199 Tollan 1987), absence of teacher involvement i educational innovation (Capel 1987), schoo communication network (Sarras 1988) increase teacher and school accountability (Esteve 1982) an

role factors (Capel 1989, Esteve 1989, Marayz 1989, Trendall 1989).

Learning Support Teachers

Within the context of current curriculum innovation and organisational demands the learning support teacher appears to occupy a particularly vulnerable position. The areas of potential stress highlighted in the literature may appear to have particular significance for learning support teachers and indeed support teachers in general. The recent trend towards a broader and conceptually different role for learning support teachers of co-operative teaching, consultancy and staff support marks a considerable departure from the traditional role of 'remedial' specialist and this may be significant in terms of perceived stress and coping strategies.

Specific Learning Difficulties

Recent studies (Reid 1991) re-affirmed this viewpoint concerning the vulnerability of learning support teachers but further highlights that those support teachers involved in teaching children with specific learning difficulties were exposed to enhanced levels of stress. Further analysis revealed some reasons for this: it was felt that children with specific learning difficulties presented additional dimensions not present to the same extent among other children with learning difficulties. These included an unpredictable learning pattern which resulted in some teacher re-adjustment: pupil de-motivation, limited teacher experience and training in dealing with specific learning difficulties, concern over lack of pupil progress, teacher self-doubt, limited appreciation of the difficulty from colleagues and management and role factors.

Role Factors

Throughout the studies and follow up interviews, role factors appear to occupy a fundamental position. These were seen in terms of role demands, role ambiguity, role overload and role conflict.

It was felt that role demands were considerable and staff were particularly susceptible to stress when dealing with areas where specific training had been minimal or was not compatible with personality aspects of the learning support teacher. This included consultancy and in-service training and presentations to other staff. Clearly a link is evident between role demands and role overload and aspects of time management skills were highlighted by the study, a factor which can contribute to stress from the dimension of both role demands and role overload.

Role conflict centred on the dilemma which many learning support teachers are engaged in concerning the issue of direct tuition and co-operative teaching. Clearly this dilemma within the context of the school and the demands and pressures from management, colleagues and parents brought considerable potential "perceived" stress to learning support teachers.

In some instances role ambiguity was evident among learning support teachers, perhaps stemming from the issues of role conflict, but a lack of awareness among others of the learning support teachers role was a critical factor resulting in this role ambiguity.

Whole School Approach

The importance therefore of role factors as a contributing mechanism to the perceived stress levels of learning support teachers underlines that in order to effectively deal with this, a whole school approach is necessary. Literature on attempts at dealing with similar problems from a whole school perspective is encouraging (Brown and Burden 1988, Cox 1988, Tollan 1987) and undermines the reliance of some practitioners on individual coping strategies. Such strategies, both palliative and direct action, can be useful for individual teachers but can berendered ineffective if the 'disease' is within the organisation. An effective and healthy organisation can support the 'support teachers' both in terms of 'perceived' demands and associated 'role factors'. This point was reinforced in a study by Cox (1988) when he describes an individually orientated approach as "detracting from the important role that the organisation plays in determining teachers experiences and can play in resolving their problems (p. 354).

Conclusion

Clearly in relation to learning support teachers and specific learning difficulties, there are many implications of role and organisational factors and the need to address issues through this type of approach. Within the role factors there are clear implications for learning support teachers for training in time management skills, organisational skills and developing an expertise in consultancy. Within school supports however need to be available and must address such aspects as the school communication network, organisational demands, inter-personal relations and staff in-service training.

Clearly a possible scenario of stressed school, leading to stressed staff resulting in stressed pupils can develop if the above issues are not effectively addressed. Such a scenario (as Fig. 1 illustrates) can spell 'difficulty' for the learning support teacher and failure for the pupils with specific learning difficulties.

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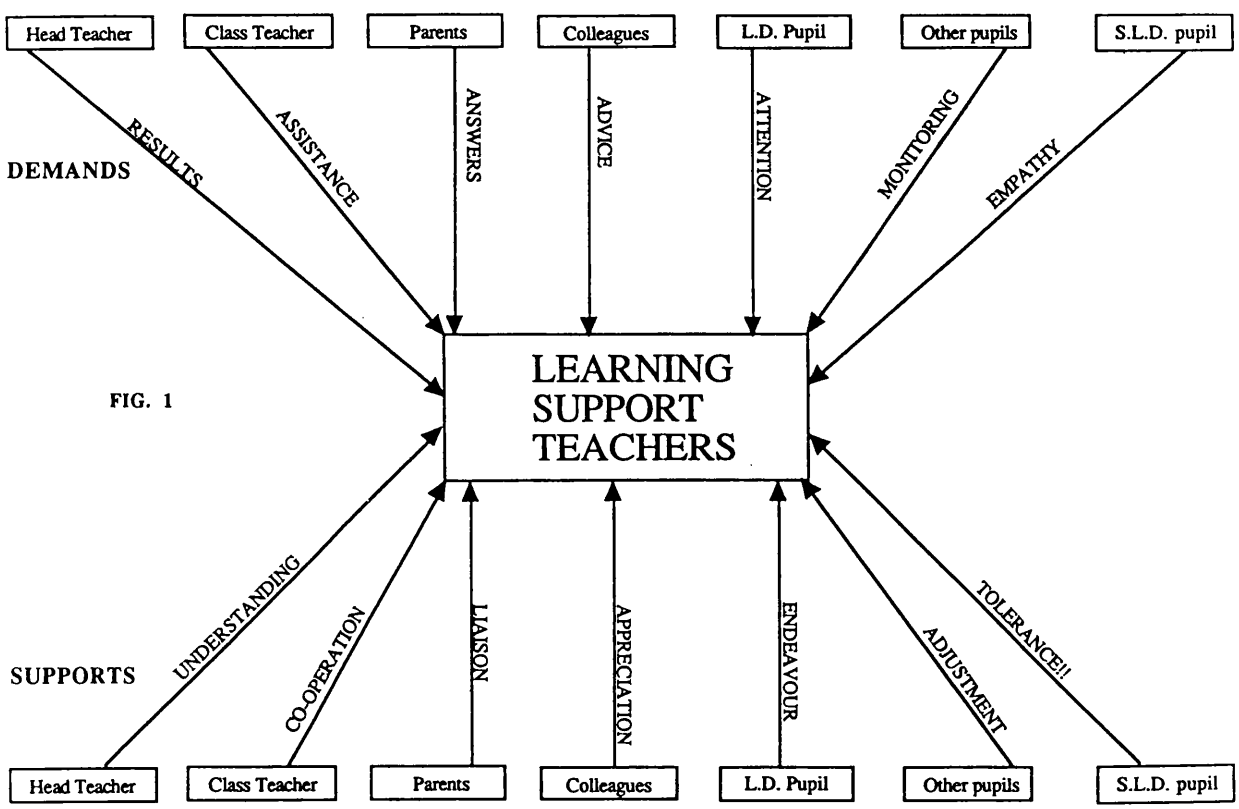


FIG. 1

APPENDIX 44

SUPPORTING THE SYSTEM – DYSLEXIA AND TEACHER STRESS

GAVIN REID
JOHN W. HINTON

This chapter focuses on teacher supports within the school system. It is suggested that a supportive school system is necessary to provide the structure to minimise psychological stress induced by work (teacher stress) and provide a more favourable education climate for pupils (Proctor, 1993). It is also suggested that dyslexic children are particularly vulnerable to psychological stress in schools and that teachers dealing with dyslexic children also experience high levels of psychological stress (Hales, 1991; Reid, 1991; Biggar and Barr, 1993; Lipinski, 1995; Jordan, 1995).

The psychological stress experienced by dyslexic pupils and teachers of dyslexic pupils can be set against a background of increased stress in the teaching profession in general highlighted by the increasing demands being placed on teachers (EIS, (1994); Badger, 1994; Proctor, 1993; and Johnston, 1993). In a survey of 570 teachers (Johnston, 1993) which examined workload diaries of teachers, the picture which emerged was of 'an occupational group putting in on average an extra day of work each week in a quiet period of the year; reporting between three and four occasions of stressful feelings in that week; and registering high scores on an indicator of occupational stress'. It is therefore important that teachers should feel supported by the school system particularly if they are to offer effective support to pupils with special needs.

Dyslexic children can present both a challenge and a threat to the professional competence of teachers. This was evident from responses in a survey of specialist teachers with responsibilities for the teaching of dyslexic children (Jordan, 1995). Some of the comments which describe the teachers' feelings include 'inadequate'; 'upset for the child'; 'frustrated'; 'where do I start'; and 'feel I lack the skills required'. These responses are symptomatic of high 'perceived coping incapacity' and 'non-satisfaction of needs', both indicators of psychological stress as defined by Hinton and Burton (1992). This state would very likely be exacerbated if the teachers' were also experiencing additional excessive and conflicting role demands

in school. It is, therefore, appropriate to investigate causes and responses to teacher work stress in relation to the network of supports within the school system.

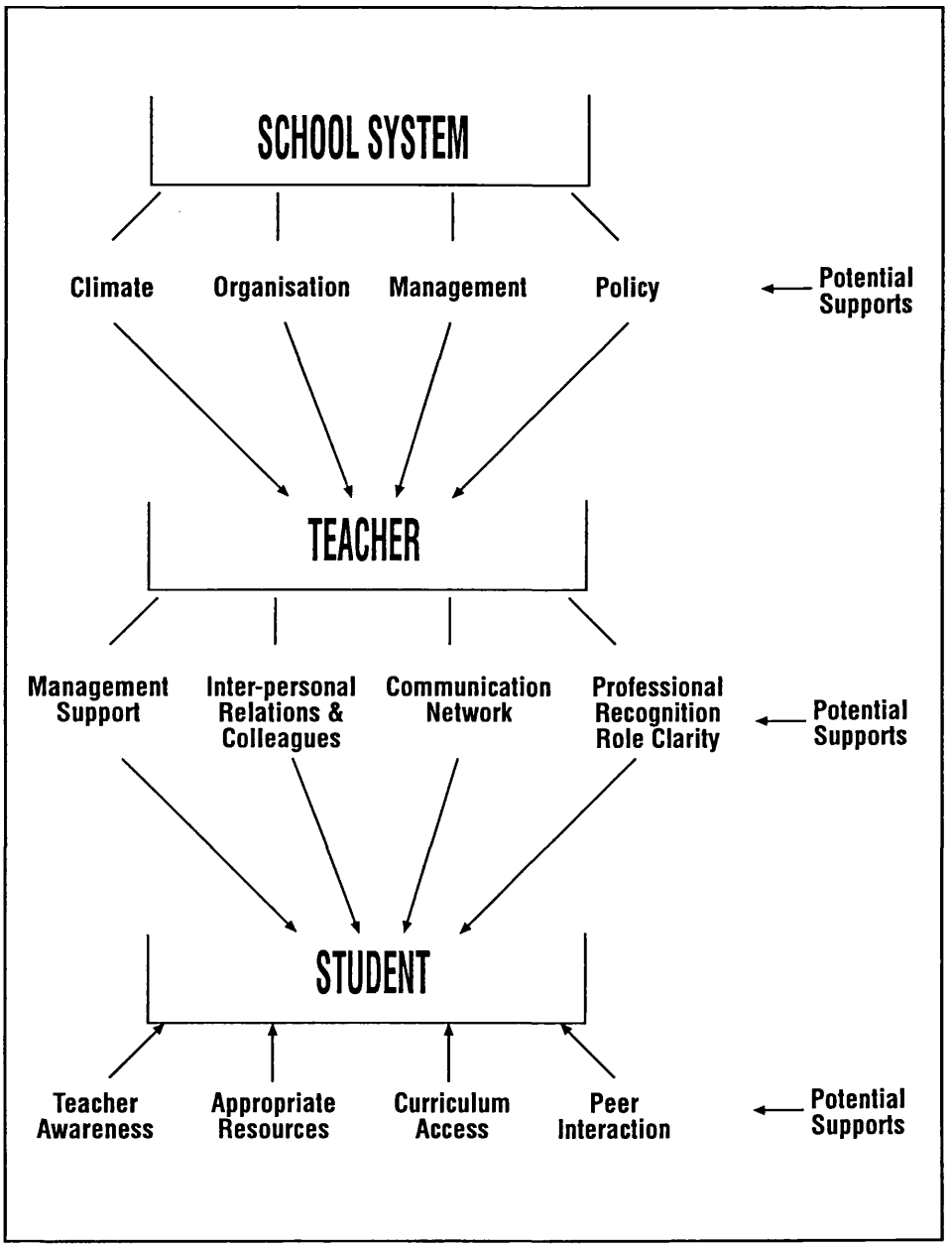
CAUSES OF TEACHER STRESS

Many different factors contribute to teacher stress. Dunham (1992) cites ten major sources of stress in teaching including lack of support, constant changes, imposed curriculum innovation and lack of non-contact time. These factors could have implications for teachers of dyslexic pupils.

Boyle, Borg, Falzon and Baglioni (1995), in a comprehensive survey of 700 primary school teachers found four distinct dimensions in relation to teacher stress – pupil behaviour: time/resource difficulties; professional recognition needs and poor colleague relations. This supports the view that teacher stress is multi-dimensional and further emphasises the need to tackle teacher stress within a school systems framework.

Hinton and Burton (1992) propose that psychological stress (psystress) results from an imbalance between 'perceived demands' and 'perceived capabilities' and this occurs through 'cognitive appraisal'. According to this model, perceived coping incapacity (PCI) is the primary stress generation factor, combined with perceived non-satisfaction of needs. These are important considerations in accounting for and dealing with teacher work stress. This model shows that psychological stress (psystress) can be manifested physiologically, emotionally, cognitively and behaviourally. This model, therefore, quite appropriately considers the systematic factors affecting individuals within organisations. This is a particularly appropriate model for stress research since it acknowledges the role of social supports, responsibility and concern and environmental factors. This thoroughly researched transactional model therefore emphasises the importance of supporting the system which in turn supports the teacher, who can then offer support to the pupil. (see Fig. 1)

Fig. 1: Model of Potential Supports (Reid, 1995)



STRESS AND DYSLEXIA

Dyslexic students, from the early years in primary school to further education and beyond, require special consideration due to their vulnerability to psychological stress. Fawcett (1995) singled out the likelihood of the dyslexic child failing within the present school system as a major factor responsible for stress experienced by dyslexic children. Additionally, there are other sources of stress for dyslexics which can arise from the home situation and other factors at school. Fawcett argues that the considerable effort dyslexic children need to expend to 'keep pace with life' is very significant in the generation of psychological stress. Fawcett and Nicolson (1990) show that dyslexic children need to work harder in **all** aspects of learning, not only literacy skills, to achieve the same level of performance as other children.

It has been hypothesised (Fawcett, 1995) that much of the stress experienced by dyslexic children could be alleviated if the education system was more supportive to their needs and teachers more aware. Thus, lack of training, resulting in a lack of awareness of the needs of dyslexic children and how these can be met not only contributes to the stress experienced by dyslexic children, but also to that experienced by teachers. This in turn adds pressure and tension to the existing educational system.

Stanovich (1986) refers to the 'Matthew Effect' in relation to dyslexic children (a reference to the Biblical passage 'But from him that hath not shall be taken away even that he hath' Matthew XXV, 29). This statement can be used to refer to the cumulative effect of the failure to achieve literacy and how a difficulty in one aspect of literacy has a knock-on effect to other aspects of literacy and learning in general. This makes it more difficult for the dyslexic child to realise the potential of those skills which he/she actually does possess: and these skills can be eroded due to difficulties in other areas. This 'Matthew Effect', therefore, can be damaging to the child's self-concept as well as to potential achievement, and can clearly lead to the dyslexic child experiencing psychological stress.

Dyslexic children often display discrepancies between the verbal and performance sub-scales of the Wechsler Intelligence Scale (Lannen and Lannen, 1995; Turner, 1994; Gardner, 1994). This can result in 'cognitive tension', resulting in feelings of anxiety which can prevent them from functioning to their full capacity. This type of tension can also be experienced by high achieving dyslexic students (Lannen, 1990) and can produce considerable psychological stress.

Duane (1991) indicates that dyslexic children are more prone to 'conduct disorders' and depression and Fawcett (1995) provides some detailed examples of this with reference to case study research. These highlight the life-long difficulties of dyslexic children and their vulnerability in experiencing some form of psychological stress.

Thomson (1995) shows how difficulties in other areas apart from literacy can affect the dyslexic child at school. She argues that many dyslexic children are lost in both space and time, which makes it difficult for them to function well in the school environment and can cause on-going anxiety for them throughout the school day.

Chinn and Crossman (1995) cite a number of good examples which highlight the difficulty dyslexic adolescents have with social skills. They feel that social skills, like turn-taking and game participation, may provide difficulties which can arise because of the dyslexic child's lack of awareness or confusion with rules. This can lead to the child's actions being misunderstood.

Saunders (1995) describes how having a dyslexic child in the family can become a real emotional experience for everyone in the family. It follows, therefore, that having a dyslexic child in the class can also be an emotional experience for the teacher. Just as family supports are required to help the dyslexic child and family members, school supports are also necessary to help the teacher.

DYSLEXIA AND TEACHER STRESS

Studies involving groups of support teachers from different geographical locations with responsibility for teaching children with specific learning difficulties (dyslexia) revealed that these teachers experienced high levels of work stress compared to other teachers in the same schools (Reid, 1990, 1992). Follow-up interviews suggested some reasons for this. The teachers felt that children with specific learning difficulties presented additional dimensions not present to the same extent among other children, even among those with other types of learning difficulties. This included an unpredictable learning pattern which required the teacher to re-adjust in terms of teaching methodology and expectations; pupil demotivation; in some cases, limited experience and lack of training in teaching children with specific learning difficulties; lack of pupil progress; teacher self-doubt; limited management appreciation of the difficulty and factors relating to role conflict, work load and responsibility. This considerable list emphasizes the need for, and the attention which should be given to, the development of supports within schools to help teachers cope with difficulties such as these presented by dyslexic children.

THE NEED FOR SUPPORT

The model of 'psystress' (Hinton and Burton, 1992) views 'perceived coping incapacity' as the result of perceived demands being in excess of perceived capabilities. It is important, therefore, to provide some supports for teachers in relation to both demands and capabilities. Perceived demands can arise from a number of different areas such as school management; colleagues; parents and pupils themselves. How can the specialist teacher be supported to cope with these demands? Individual counselling or stress management programmes may help but it is unlikely that these will tackle the underlying difficulties since many of these difficulties are embedded in the system. Key personnel, therefore, such as head teachers, other members of the school management teams and colleagues need to be involved in any stress management programme if it is to be fully effective. The headteacher and school management have some control over timetabling, and school communication and can show an understanding and appreciation of the importance of supports with school.

ROLE FACTORS

It is important to consider the relationship between school supports and teachers' perceptions of their occupational roles. Many studies investigating teacher stress have singled out role factors as being particularly significant (Trendall, 1989; Capel, 1989; Dunham, 1992 and Reid, 1991). Role factors can be seen in terms of role demands, role ambiguity, role overload and role conflict.

In relation to teaching children with specific learning difficulties teachers felt that role demands were considerable, particularly in cases where only minimal training had been provided (Reid, 1991). In some cases, demands appeared to be incompatible with personality aspects and personal preferences of the teachers in relation to one-to-one teaching, small group teaching or team teaching in the whole-class situation. This also related to role conflict where there was some uncertainty regarding approaches in relation to direct tuition and co-operative teaching. This provided a dilemma for the teachers concerned and each group within the school had their own particular views on this matter and indeed on the role of specialist teachers. This clearly added to the existing pressure on teachers. This dilemma can be seen as a result of educational innovations and some uncertainty, perhaps controversy, on the most effective methods of teaching and providing for the needs of pupils with specific learning difficulties (Pumfrey and Reason, 1991).

WHOLE-SCHOOL APPROACH

The recognition of role factors as a contributory aspect of teacher work stress among learning support teachers underlines the view that in order to deal effectively with teacher stress, a whole-school approach is necessary (Tollan, 1987; Proctor, 1993). Individual stress management strategies, involving 'palliative' or 'direct action' methods (Kryciacou, 1989) may well have a function in dealing with individual difficulties of individual teachers, but may be rendered ineffective if the root cause is within the school organisation and system. An effective and healthy organisational climate in schools can therefore support teachers both in terms of work overload and role factors, such as role conflict. This is reinforced in a study by Cox (1988) which describes an individually orientated approach as 'detraction from the important role that the organisation plays in determining teachers' experiences and can play in resolving their problems' (p. 354). It is apparent therefore that within school factors such as the school communication network, inter-personal staff relations, organisational procedures, management concern for teachers' welfare, democracy in decision making and encouragement in relation to professional development are important considerations and need to be addressed.

Study of major curriculum innovation in Scotland was conducted by Badger (1994) (the 5 - 14 Development programme). The author reported that innovation was a source of considerable stress in the teaching profession. He suggested that a reappraisal of the organisational support and the pacing of innovation at school and national levels be undertaken. This study also highlighted the importance of management practice in dealing with change in schools.

DEVELOPING SUPPORTS

Schools are continually facing curricular and administrative changes, the latter being accelerated by devolved management of responsibility for school resources and policy. In view of the evidence on school supports, it is important that schools' in-service programmes considers the importance of school organisation in relation to teacher stress.

Such a programme could include the following factors:

- Personal Organisation.
- Classroom management.
- School Organisation.
- Management and administration.

Research by Reid (1991, 1992, 1993) and Proctor (1993) shows that the following aspects are significant in examining teacher stress and school supports:

- Perceived non-satisfaction of needs.
- Social support within school.
- Motivation.
- Job challenge.
- Staff involvement in organisational decisions.
- School administration.
- Readiness to innovate.
- Role of school management.

A framework for a whole-school programme taking into account these aspects is shown in Fig. 2.

Fig. 2: School Supports – An In-service Framework

Personal Organisation

- time management
- planning and preparation
- diary and record keeping
- information gathering/general awareness

School Organisation

- organisational components
- organisational models
- vulnerable aspects of organisations
- staff interaction within organisational structures

Inter-Personal Support within Organisations

- nature of inter-personal support
- features of a supportive organisation
- interpersonal support and teaching

Organisational Climate

- role of management
- organisational climate dimensions
- assessing climate

An in-service programme which considers this kind of framework should help to develop an awareness of the different aspects of school supports and school organisational climate. Additionally, such a programme should help to combine organisational factors and personal and school supports and also identify and highlight constructive aspects of personal and organisational factors in school. This, it is hoped, would minimise work stress, the effects of which are clearly evident in schools in the current climate of major curricular and administrative changes and particularly help teachers in relation to teaching groups of pupils with specific needs such as dyslexic children.

CONCLUSION

Whole-school programmes to reduce work stress not only address the issue of developing a supportive school system and communication network, but also deal with mis-matched perceptions of staff. A particular situation may be stressful to one teacher but not to another – personal perception, therefore, of the balance between perceived capabilities and perceived demands can vary from individual to individual. Reid (1991) found that differing perceptions between teaching staff and management was a significant issue in the work stress levels of one school: teaching staff felt management were not supportive and showed little awareness of classroom factors and of the implications and effect on the staff of 'overload' due to curricular innovations. Management, on the other hand, perceived themselves as very supportive and believed they provided staff with a supportive form of consultancy. Such a mis-match can be addressed in a whole-school programme.

Within this whole-school framework there is little doubt that the difficulties associated with dyslexia require special consideration. Dyslexic children can provide the teacher with a considerable challenge but this can be met by specialist and trained teachers. If the school system, however, is not supportive, this challenge can seem insurmountable adding to teacher work stress, but with adequate school supports the difficulties associated with teaching dyslexic children can be overcome.

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