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Stress in Teaching: A Scottish Perspective

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PhD (Psychology)

The University of Edinburgh

13th March 2009



To my sisters and brothers

Violet, Lily, John, Tricia, Angela & Derek

Mum and Dad would have been proud of all that we have achieved as a 'family'

Declaration

- (a) This thesis was composed by Rosemary Mulholland
- (b) The studies presented in this thesis were all performed, analysed and written by myself.
- (c) I hold the degree of BEd (Hons) (Dunfermline College of Physical Education) and MSc by Research in Education (University of Edinburgh)
- (d) This thesis has not been submitted for any other degree, diploma or professional qualification

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ABSTRACT OF THESIS

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A series of questionnaire surveys were conducted during 2004-2007 to explore teacher perception of 'stress in teaching' within the Scottish context. Study 1 comprised Secondary Teachers (N=400); Study 2 comprised Student-Teachers (N=197) and Study 3 comprised Inductee Teachers (N= 16). The main aims of the surveys were to explore (i) the extent to which Teachers perceive the profession as stressful; to examine (ii) the relationship between perception of stress in teaching and well being and identify (iii) factors which impact on perception of teaching as stressful. 'Stress' was conceptualised as a 'psychological state' (Cox & Ferguson, 1991) that could manifest itself at a physiological, psychological and behavioural level. The study was underpinned by an interactional model of stress (Lazarus & Folkman, 1984). This model places the teacher, their appraisal of demands and their own personal and professional resources, at the centre of the stress process. Data was gathered by means of survey questionnaires which included a range of validated instruments such as the General Health Questionnaire-30 (Goldberg, 1978); the Glasgow Symptom Checklist (Mahmood, 1999) and the Placement Concerns Questionnaire (Murray-Harvey, 1999). To place the concept of 'stress in teaching' within the Scottish context an additional range of instruments were designed to measure stress in teaching (Stress in Teaching Scale), general student stress (Stress in Students) and coping with stress in teaching (Coping with Stress in Teaching). In addition, Postgraduate Students (N=22) participated in semi-structured interviews following their final placement experience (2006). This group were followed into the induction year and completed questionnaires and email interviews during the time of the induction. Overall findings indicated that 92 per cent of Teachers, 79 per cent of Student Teacher and 31 per cent of Inductee Teachers perceived the profession as 'quite' to 'very stressful'. Teachers perceived the 'Teaching Learning Interface' and in particular 'indiscipline' as a significant source of stress. Student Teachers cited 'Performance Evaluation'; 'Managing Workload' and 'Class Management' as 'stressful'. In contrast to fully fledged teachers, Inductee Teachers did not find any aspect of teaching such as 'Work Overload'; 'Professional Ethos'; 'Teaching Learning Interface' or 'Perceived Support' as stressful. Perception of stress in teaching and perception of well being varied significantly in relation to current role, age, years of teaching experience and level of study within Initial Teacher Education. One out of every two Middle Managers and Postgraduate Students perceived teaching as 'very stressful'. Moreover, during the course of this study both groups reported changes in well being which would warrant therapeutic intervention. This was especially apparent in relation to feelings of 'Personal ineffectiveness' such as 'being unable to make decisions'. In contrast, when the Postgraduate cohort made the transition into, and though, the induction year they perceived teaching as significantly less stressful, and reported significantly less changes in normal levels of well being. In the case of Middle Managers, Postgraduate Students and Inductee Teachers differences in perception of stress in teaching were explained by the interaction between the demands of teaching such as 'Work Overload' and the 'Teaching Learning Interface', and a range of additional factors. For Middle Manager the impact of 'change' and issues pertaining to 'Professional Ethos' and 'Perceived Support', played a key role in their perception of teaching as stressful. Issues of efficacy associated with status of the PGDE course and others' expectations impacted on the Postgraduate Students' perception of teaching as stressful. The Inductee Teachers' perception of teaching as 'not stressful' was attributed to being situated in an 'enabling' professional context in which their personal and professional growth was generally supported. However, it is interesting to note that as Inductee Teachers perceived the 'Teaching Learning Interface' as significantly less stressful they also perceived teaching, as significantly less stressful. Within education there are growing concerns regarding teacher retention and recruitment. Therefore, it is concerning that within this Scottish context a significant proportion of middle managers and postgraduate students perceived teaching as very stressful and in addition experienced significant changes in well being that would normally be associated with a clinical population.

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CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

This introductory chapter sets the scene for a series of empirical studies designed specifically to explore the concept of ‘stress in teaching’ within the Scottish context. This chapter comprises four sections. Section 1.1 presents a general overview of current discourses pertaining to the phenomenon of ‘stress’, and a summary of the main findings from studies that have explored stress in teaching within the Scottish context. Section 1.2 provides a rationale for the research and Section 1.3 highlights a range of conceptual issues that informed the research. Finally, Section 1.4 provides a brief account of the research and the generic research questions underpinning the three studies reported in this thesis.

1.1 BACKGROUND TO THE RESEARCH

The concept of ‘stress’ is an intangible phenomenon that notoriously defies definition. To the layman the term is commonly considered negative in affect and/or indicative of not coping. Nevertheless, we have all experienced at some point in our lives, a type of stress considered to be positive in affect. That is the ‘stress’ that drives us to meet deadlines, to achieve our goals and, indeed, to persevere in times of upheaval and uncertainty. However, in health and social discourses, there is a tendency for this phenomenon to be couched in terms which portray ‘stress’ as a negative state which has the potential over time, and if this state persists, to threaten not only our personal well-being, but also our professional efficacy. Stress is not easily recognisable or indeed readily acknowledged. Although this concept has been portrayed as a ‘disease of our time’ (Doublet, 2004) the literature indicates that ‘stress’ has been around for a very long time in some guise or other.

As our understanding of this concept evolved, stress was conceptualised as contingent on an interactive process involving the individual and their environment, as opposed to external demands or responses to these demands. The outcome of this interaction was dependent on the individual's appraisal of firstly, environmental demands and secondly, their capacity to manage these. A mismatch could result in 'stress' unless the individual in question was able to find a means of coping with this level of pressure.

Stress in teaching is also a contested and high profile concept. The discourse of teacher stress is certainly not a new phenomenon, although it has been suggested that teacher stress is simply a social construction of our time (Jarvis, 2003). While there appears to be some dubiety over the prevalence, nature and impact of stress in teaching (Carlyle & Woods, 2002; Chan, 2002; Cosgrove, 2000, Cooper, 1995; Kyriacou, 2001), sufficient evidence exists to confirm this concept is a feature of contemporary times. Moreover, teacher stress is recognised as a growing international problem and has, in addition, been at the centre of a range of litigation cases in the UK. At the same time there is evidence, albeit at times conflicting, to suggest that student teachers and newly qualified teachers experience similar levels of stress as fully-fledged teachers (Kyriacou, Hulgurten & Stephens, 1999; Kyriacou & Kune, 2007).

It is interesting to note that although stress in teaching has been the subject of intensive research activity for almost five decades (Cosgrove, 2000), there appears to be a paucity of empirical studies which have explored this concept directly within the Scottish context (Wilson, 2003). In particular, there is little if any evidence of research that considers student teachers or the newly qualified teachers' perception of stress in teaching from a Scottish perspective. In fact, when a Teacher Support Agency was launched in Scotland in 2001 to specifically address the issue of stress in teaching, it was reported that there was no empirical evidence to support the need for such a service.

While there may have been a lack of research which specifically focussed on exploring stress in teaching and the need for a support service, a number of studies have in fact

investigated stress in teaching either directly or indirectly, within the Scottish context (e.g., Hall, Wilson, Sawyer & Carroll, 2000; Johnstone, 1993; Munn, Johnstone & Sharpe, 2004; Pithers & Soden, 1998). In common with national and international research in the field, these studies identified a range of stressors considered intrinsic to the profession of teaching such as 'workload' and 'pupil behaviour'. In addition, systemic factors such as coping with the demands of 'change' were also identified as stressful. Although two studies in particular primarily focussed on issues of 'workload' others used recognised scales such as the Occupational Stress Inventory (Cooper, Sloan & Williams, 1988) to explore teacher well being.

In 2004, a national survey of teacher health and well being was conducted in the Scottish context (Dunlop & MacDonald, 2004). This study produced some interesting findings, which influenced the design of the studies reported in this thesis. Teachers involved in this specific study were drawn from the primary, secondary and special education sector. Overall 44 per cent of participants reported teaching as 'very' to 'extremely' stressful which is higher than the one-third reported in a range of national and international studies (e.g., Boyle, Borg, Falzon & Baglioni, 1995; Chan, 2003; Laughlin, 1984). It is of concern that 90 per cent of participants within this Scottish context indicated their levels of stress had increased in the last five years. Pupil indiscipline was cited as the main source of stress within the context of this study, especially for Secondary School Teachers. Interestingly teachers with 15 or more years of teaching experience firmly believed there was a link between stress in teaching and general health.

1.2 RESEARCH RATIONALE

Stress in teaching is a contested phenomenon, however research suggests that stress is not only a reality for the fully-fledged teacher, but also student teachers and newly qualified teachers. While there is a wealth of research concerning the issue of stress in teaching across these developmental stages, there appears to be a paucity of empirical research

within the Scottish context. The research reported in this thesis therefore seeks to fill that gap. The researcher's interest in this specific area was fuelled firstly by the desire to give Scottish teachers a voice to add to the teacher stress discourse. In addition this research has the potential to positively inform and enhance practice within this Initial Teacher Education Faculty and beyond.

1.3. CONCEPTUAL FRAMEWORK

The research reported in this thesis aimed to illuminate perception of stress in teaching within the Scottish context. This was achieved by exploring the views and experiences of fully- fledged teachers, student teachers and finally inductee teachers. At the outset it was important to highlight that it is generally acknowledged that individuals react and respond differentially to occupational stressors, and that their specific occupational environment will be unique to them. Moreover, continued conceptual confusion is a real concern in stress research (Gugliemi & Tatrow, 1998). To ensure there was no dubiety about definitions within the research reported in this thesis, '*stressors*' were recognised as occupational variables that can potentially place the teacher (student) '*under stress*'. In the context of this research '*stress*' is considered as a 'psychological state' arising from an interactive process commencing with individual appraisal of firstly, demands within the teaching context and secondly, their capacity to manage these. When coping efforts do not enable the individual to manage demands, stress can occur.

In effect, stress could manifest itself at a physiological, psychological and/ or behavioural level. Over time and if 'stress' is chronic and/or cumulative in nature, this could impact on the individual at a professional and personal level. Depending on the intensity, nature and/or number of stressors experienced, individuals may experience significant changes in well being (Travers & Cooper, 1996; Laughlin, 1984).

While research in the field, serves to provide us with a blueprint for the exploration of teacher stress, it is important to acknowledge that teacher perception of stress will vary

according to their unique cultural, educational, social and political circumstances. While we can safely assume that generic sources of stress in teaching play a part in the generation of stress within the Scottish context, it is important to take cognisance of the fact that there will be:

“ differences in the main sources of stress between countries, based on the precise characteristics of national educational systems, the precise circumstances of teachers and schools and those countries and the prevailing attitudes and values regarding teachers and schools held in society as a whole” (Kyriacou 2001, p.30).

1.4. THE RESEARCH

The research reported in this thesis takes a slightly different approach to previous studies within the Scottish context, by inviting participants across a range of developmental stages to share their views and experiences of stress in teaching. Moreover, this is the first time that a study within the Scottish context has explored the undergraduate and postgraduate physical education student teachers' perception of stress in teaching. Potentially the research could draw on a range of instruments designed to gauge stress in teaching, such as the Teacher Stress Inventory (Fimian, 1988). However, in recognition of the uniqueness of different educational and cultural contexts (Kyriacou, 2001), a decision was taken to develop a range of scales specifically designed to place perception of stress in teaching within the Scottish context.

The research comprised three studies: the first two studies explored the extent to which secondary school teachers and student teachers (physical education) respectively perceived teaching as 'stressful'. The final study added a longitudinal element to the research by exploring inductee teachers' (physical education) perception of stress in teaching as they made the transition into, and through, the induction.

1.4.1 SUMMARY OF CONTENT

The thesis comprises a further six chapters which include the findings from the three empirical studies which served to place stress in teaching within a Scottish context.

Chapter 2 presents a review of some of the conceptualisations of stress. In addition, a range of issues arising from the discourses associated with both ‘occupational stress’ and ‘stress in teaching’ are outlined.

Chapter 3 considers the methodological assumptions associated with research in general prior to providing a justification for, and explanation of, the research design adopted within the studies reported in Chapters 4-6.

Chapters 4- 6 provide an overview of the teacher, student teacher and inductee teacher study respectively. Background information is provided and a methodology section is outlined for each of the studies. In addition, results are presented and explored within the context of the research in the field.

Chapter 7 outlines the main findings from the three research studies. Findings from each of the studies are then compared and placed within the context of research in the field. Final conclusions are presented in relation to the generic research questions listed below.

1.4.2 Generic Research Questions (RQ)

RQ1: To what extent do ‘teachers’ within the Scottish context perceive teaching as stressful?

RQ2: Are there any specific variables which impact on those ‘teachers’ perception of stress in teaching?

RQ3: Among these ‘teachers’ is there any relationship between perception of stress in teaching and perceived well being?

CHAPTER 2

REVIEW

2.0 INTRODUCTION

This review chapter aims to set the scene for the three empirical studies designed to place perception of stress in teaching within this specific Scottish context. The review is divided into three sections that serve to provide a theoretical framework for the research reported in this thesis. Section 2.1 defines stress and outlines three different conceptualisations of stress which have evolved over time. Section 2.2 explores the concept of occupational stress and highlights a range of generic factors which are considered to play a role in the generation of stress. Finally, Section 2.3 shifts focus to 'stress in teaching' and places this concept in the context of research in the field.

2.1. DEFINING 'STRESS'

The phenomenon of 'stress' has become an increasingly familiar term within everyday discourses in spite of notoriously defying definition (Beehr & Franz, 1987; Cooper & Dewe, 2004). The term 'stress' was originally derived from the Latin 'stingere' which implies drawing tight. Over time this concept evolved from the notion of 'hardship' (Hinkle, 1987) in the 17th century, to being associated with a specific type of pressure, force, and/or physiological responses during the 18th to 19th centuries and, finally to imply a 'psychological state' (Cartwright & Cooper, 1997). As a term, 'stress', has been used interchangeably with concepts such as 'anxiety', 'concerns', 'demands', 'eustress', 'distress', 'tension', 'pressure' and/or 'strain'. In addition, this concept has been portrayed as being negative or positive in affect (Seyle, 1983), debilitating or invigorating and indicative of illness or not coping (Capel, 1996, Cosgrave, 2000; Guigelmi & Tatrow, 1998; Pierce & Molloy, 1990).

In spite of the plethora of definitions, it is clear our contemporary understanding of 'stress' has evolved from an ongoing quest to understand human behaviour and the

relationship between individuals and their environment and, indeed, the impact this relationship has on health and well being (Cooper & Dewe, 2004, Doublet, 2000)

As attempts were made to explore the reasons why individuals' health and well being appeared to be adversely affected by the demands of living (Hergenhahn, 1992), the first seeds of this notion of stress were sown. The link between demands and stress gradually emerged as scientists and researchers alike, puzzled that people in general succumbed to 'illness' with no apparent physical cause or, indeed recognised medical condition or disease (Bartlett, 1998). This led to a general belief that something within the environment, believed to be external stimuli (Bertoch, Nielson, Curley & Borg, 1988), placed demands on the individual. It was surmised that when these demands were excessive in terms of taxing individual adaptive capacities, this could lead to a serious depletion of nervous energy. Over time this interplay between demands, adaptive capacities and the nervous system would culminate in physiological and/or biological disease (Abbott, 2001). These early theories concerning the link between individuals, demands within their environment, and health provided a blueprint for research into this notion of stress. Needless to say, to this day 'stress' as a concept and its tenuous link to health and well being, remains an ever present, if somewhat contested, phenomenon within current scientific, health and everyday discourses (Carlyle & Woods, 2002; Cosgrove, 2000; Doublet; 2000; Jarvis, 2003).

2.1.1 MODELS OF STRESS

From the 17th Century onwards, and as a consequence of the quest to understand the link between person, environment and health, a range of theories emerged to provide a framework for stress research. Over the last six decades, and against this theoretical backdrop, a number of different conceptualisations of stress have evolved, namely the engineering, medical and interactional models of stress. These models have dominated the field of stress research within the social sciences and naturally, the standpoint adopted by the proponents of each model has shaped the ways in which researchers

have explored and examined the elusive concept of 'stress' throughout the history of stress research.

For example, the '*engineering model*' of stress supported the notion that the environment exerted pressure on individuals placing them 'under stress' and subsequently this resulted in 'strain' (Dunham, 1984). Interestingly, prior to the 1940s 'stress' was rarely used as a term other than within the world of engineering, where the term 'strain' was used extensively to refer to the resultant effect of 'stress' (Cooper & Dewe, 2004). This link between stress and strain was initially demonstrated and clarified by Hooke's law of elasticity, subsequently providing a blueprint for attempts to measure and conceptualise stress out with the laboratory context. Hooke's theory was based on the premise that when a 'load' is placed on any structure such as a machine, the part bearing the brunt of the load would become stressed. As a result of the interaction between the actual load and ensuing stress, the structure would exhibit signs of strain (Engel, 1985; Lazarus, 1999). In effect, signs of strain, such as changes in the structure from the original or natural state, would be indicative of being under stress. The engineering model of stress demonstrated a link between stress and strain which served to inform the empirical study of stress within naturalistic settings.

If the human body was considered in the same way as machines then it was feasible that individuals could also be subjected to general 'wear and tear' associated with the everyday demands of 'living', or indeed their occupational context. The degree of wear and tear arising as a consequence of our encounters with external environmental 'demands' would dictate the extent to which we were placed under stress.

Over time the concept of 'stress' became couched in health terms and associated with physiological and/or biological changes and disorders of the nerves, as opposed to demands and external stimuli (Doublet, 2000). Subsequently the '*medical model*' of stress emerged. This model was attributed to the early work of Walter Cannon (1871-1945) and Hans Selye (1907-1982). Both were eminent leaders in the field of stress research and are believed to have paved the way for stress to be re-conceptualised as a

psychological state. Both Cannon and Hinkle (1973) highlighted that when confronted with real danger (threat) the natural instinct of both animals and humans was self-preservation. This would constitute either, remaining and confronting the threat (fight) or, alternatively, taking some kind of evasive action (flight). This theory is commonly understood as 'fight or flight' and is believed to have developed from the premise that physiological changes were believed to be part of our general adaptation to our environment (Cannon, 1935).

A central feature of Cannon's work was the role played by the adrenal system in preparing the individual to effectively face or evade potential threats. The physiological changes observed in this context such as adrenalin rush, were indicative of being under stress (Cartwright & Cooper, 1997). While these physiological changes ostensibly occurred under the surface, their antecedents would be linked to an emotional response to feeling 'under threat' or indeed 'challenged'. A chain of events would lead from our emotional response to physiological changes that would then fuel action of whatever kind deemed appropriate.

Both the engineering and medical model advocated that stress was generated by an external objective reality, namely demand or 'stressor'. Consequently, the individual was peripheral to our understanding of stress in that their role appeared largely passive (Wilson, 2003). Based on the engineering 'stress-strain' analogy, 'demands' inherent to any occupation could be perceived as potential 'stressors' in their own right. Or alternatively, in line with the medical model of stress which focuses on the notion of stimulus-response, be labelled as such on the basis of changes in the individual's physiological status. In the study of stress the proponents of the engineering model would explore the demands placed upon the individual while those who aligned themselves with the medical model would concern themselves within uncovering physiological and/or psychological symptoms reflective of being under stress (Dunham, 1984). Notably, the emergence of the medical model saw stress defined in terms of a response to, as opposed to the presence of, external demands or pressures.

By the 1970s, it was evident that stress was increasingly viewed as more complex in nature than originally thought. Building on earlier formulations of stress, the '*interactional model*' of stress emerged based on the premise that the individual was recognised as being an active agent who responded to, and also influenced their, specific environment (Travers & Cooper, 1996). The hallmark of the interactional model of stress was a belief that stress was dependent on the transactions (Lazarus & Folkman, 1984) between the person and their environment and not simply attributable to external demands or (physiological) responses. The relationship between person and their environment was in effect dynamic. Moreover, the physiological and psychological resources of the individual were believed to determine the extent to which they managed stressful encounters (Johnstone, 1989). In line with this model of stress, the focus of research shifted to acknowledge a subjective view of human behaviour rather than simply exploring individual response to stress in behaviouristic terms (Travers & Cooper, 1996). It should be noted that this conceptual shift could of course be linked to parallel debates concerning ontology, epistemology, and research in general and social research specifically.

Notably, by 1988, stress had been re-conceptualised as an interactive process in which each transaction between the individual and their context was believed to be accompanied by appraisals, emotion and coping (Cooper & Dewe, 2004). A psychological state of stress would occur when the demands of any encounter were 'perceived' to exceed the individual's resources (Cosgrove, 2000 p.71). The role of 'perception' in the stress process was a significant feature of the early work of Richard Lazarus, in the field of stress research. However it should be noted that he latterly replaced the concept of perception with the notion of 'appraisal'. His belief was that the term appraisal conveyed more clearly the cognitive processes inherent to the individual's evaluation of each transaction within their specific context, and indeed the 'stress process' (Cooper & Dewe, 2004). In effect, stress was recognised as a process in which our appraisal of, and interactions, with our environment played a key role.

In effect, when confronted with a 'stressor' or some kind of occupational demand we weigh up (appraise) the situation in terms of what it demands of us (primary appraisal). We estimate the extent to which it can harm us, perhaps in terms of threatening well-being, self-efficacy and self esteem (Lazarus, 1999). Based on this primary appraisal we then consider whether we have the resources to meet demands (secondary appraisal). In the event that the transaction is seen as stressful we consider our coping options within the secondary appraisal phase. As highlighted previously, Lazarus (1999) sees appraisal as embedded in all transactions, with the individual attaching 'personal meaning' and significance to each event. Crucial to this process is the extent to which demands are appraised as either challenging or threatening. This dictates the personal significance of each transaction.

Interestingly, Travers and Cooper (1996) propose that there are five dimensions to the interactional model of stress which were originally identified in the work of Edwards and Cooper (1988). In the first instance our perception of any given situation can give rise to an experience of stress. This is known as '*cognitive appraisal*'. That appraisal is influenced by the many '*experiences*' we bring to the scenario, such as outcomes of previous encounters, training and familiarity with the situation. Our perception of '*demands*' also plays a key role. This is closely associated with the level of congruence between demands and our perception of our ability to meet these. It should be noted that, in relation to this notion of a link between demands and ability, Travers & Cooper (1996) conclude that 'perception of ability' would not necessarily equate with actual ability. One would wonder if the same could be true of the 'perception of stress' on one hand and the existence of 'stressors' on the other.

Nonetheless, this five-stage model suggests that perception of stress is thought to be influenced by '*interpersonal*' factors in that the presence of (significant) others can either determine the extent to which stress either debilitates or drives us to succeed. In other words, stress can be negative or positive in affect. Finally, as we weigh up demands and available resources a '*state of imbalance*' can occur. However, this can

be resolved through a process commencing with cognitive appraisal and culminating in the activation of coping strategies (Snyder, 1999). The essence of this model may provide a useful framework for our exploration of 'stress in teaching' within the Scottish context. However, it is important to consider more carefully the extent to which conceptualisations of stress in general, translate into the field of occupational stress research and, indeed, research into the concept of teacher stress.

2.2 OCCUPATIONAL STRESS

As theoretical understandings of stress continued to be critiqued and refined parallel debates were evident within the field of occupational stress. This rhetorical discourse subsequently shaped research into stress in teaching. Over the years a number of etiological models (Guglielmi & Tatrow, 1998) of occupational stress emerged as researchers contemplated how, and under what conditions, occupational stress could lead to stress or, alternatively, enhance performance. In line with our evolving understanding of the concept of 'stress' two dominant models of occupational stress emerged, these are commonly known as the person-environment fit (Caplan, Cobb, French & Pinneau, 1975) and derivations of the demands-control model (Karasek, 1979) of occupational stress.

The person-environment fit model highlighted the notion of stress being linked to the degree of fit between the person and their environment. The individual's response to external (occupational) demands was believed to be a function of the 'fit' between 'person' and 'environment'. Physiological, psychological and behavioural changes would provide some indication of the extent to which there was a misfit between the individual's personal/professional resources and the demands of their occupational environment. These changes were often considered as indicative of stress and representative of a state of disequilibrium (Doublet, 2004). Notably, stress was linked to the individual's perception that they did not have the personal and/or professional resources to effectively meet the requirement or demands inherent to their occupation.

This conceptualisation of occupational stress offers a 'tripartite transactional model of stress' (Guglielmi & Tatrow, 1998). The key players within this triad would be the specific occupational context, the person and the source of stress (p.63). Stress would arise as a consequence of a mismatch between aspects of the work environment (stressors) and the individual's adaptive capacities and resources. In relation to teaching, the occupational environment could be considered to place demands on the teacher. These demands could be related to workload and/or relationships with colleagues and pupils. The employee's adaptive capacities would be dependent on their unique personality, as well as the motivations, expectations, experiences and personal/professional resources they bring to the occupational setting. In effect, the interaction between this combination of personal variables and the nuances of the individual's precise occupational context are considered to determine the extent of the person-environment fit (Guglielmi & Tatrow, 1998). One of the criticisms of this model is that, even though it serves to indict a misfit between the individual and their occupational environment in the generation of stress, it fails to consider the factors which may intervene in person and environment fit, such as cognitive and emotional processes (Cooper & Payne, 1988).

In contrast to the person-environment fit model, the '*demand-control*' or '*job strain*' (Karasek, 1979) model of occupational stress highlighted job demands and decision latitude as the key to understanding occupational stress. Job demands, such as workload and the degree of decision latitude, which refers to the degree of autonomy and control the individual has within their occupational context, were considered to determine levels of (job) strain, that is occupational stress. One criticism of research based on this model was that this focussed on job characteristics exclusively, rather than considering the individual's role in the stress process, or their interactions with their occupational context.

The '*effort-reward model*' of stress (Siegrist, Junge, Cremer & Siedel, 1990) which developed from the demands-control model, did consider the role of the individual in

the stress process. This model was based on the interaction between efforts invested in work and rewards experienced as a consequence of that investment. Effort would refer to generally demanding aspects of any job, as well as our attempts to cope with and manage or control these conditions. Rewards would be related to job security, prospects and benefits, as well as the degree of perceived decision latitude and control. Individuals would be considered at higher risk of experiencing 'stress' and perhaps compromised well being if efforts to meet demands exceeded job rewards. The effort-reward model placed the individual in the centre of the stress process. Their coping and efforts to control demands were perceived as possible moderators of stress. While it is clear that a balance between 'efforts' and 'rewards' could impact on our perception of stress related to our occupational context, it is important to consider the extent to which the nature of that context can mediate and/or moderate stress. A range of factors are considered to moderate and /or mediate our interaction with 'stressors' (Travers & Cooper, 1996; Synder, 1999). Individual differences such as 'personality' or indeed coping style can serve to 'reduce' or 'increase' (moderate) the stress-value of any specific occupational stressor. Alternatively, these individual differences can actually be responsible for translating (mediating) potential 'stressors' into feeling of 'stress' in reality (Cooper & Bright, 2001).

This conceptual gap was filled by the *demands-supports-constraints* model of occupational stress. This model considered how elements of the occupational context could enhance (support) or hinder (constrain) individual ability to meet demands or, indeed, sustain efforts. While this model shifted the focus to the nature of the occupational context, and how this could be an intervening factor in the efforts-rewards chain, it omitted to highlight that constraints represents much more than simply the absence of support (Guigleimi & Tatrow, 1998). In relation to teaching this can be understood by recognising that, while the individual may work within a very supportive climate, their ability to meet demands may be compromised or constrained

by lack of experience in teaching in general and/or knowledge of specific curriculum areas.

The '*effort-distress*' model of occupational stress (Frankenhauser, 1986) developed from the conceptual framework offered by the demand-control model. This model acknowledged that stress can also have positive outcomes. In effect the intrinsic demands of an occupation do not always translate into actual 'stressors' that precipitate stress. Stress is believed to occur only if demands are not mitigated by personal control and decision latitude that is degree of autonomy and control. This specific model of occupational stress provided a framework in which researchers effectively identified aspects of specific occupational environments that may lead to stress. Research based on this model highlighted specific types of occupations (or occupational conditions) in which individuals would be potentially more vulnerable to strain. Interestingly, conditions in which 'high demands' (effort) with low decision latitude (control) are experienced have been cited as significantly increasing the likelihood of a range of illnesses (Karasek & Theorell, 1990; Kristensen, 1995). On the other hand, the optimum conditions for an effective workforce have been linked to high demands in conjunction with high levels of control and autonomy within this context.

Over time each of these models of occupational stress influenced the manner in which research into the concept of occupational stress was approached. In addition, they have also contributed to the development of a body of knowledge which highlights generic occupational stressors.

2. 2.1 FEATURES OF OCCUPATIONAL STRESS

From the 1970s onwards stress research began to shift focus to identify generic aspects of occupations considered as work 'stressors'. Behr and Newman (1978) highlighted the following four facets of work stress: job demands and task characteristics, role demands or expectations, organisational characteristics and

conditions, organisational demands and conditions (p.90). Just prior to this Cooper and Marshall (1976) proposed six categories of stressors associated with work which were 'intrinsic to a job'; 'role in the organisation'; 'career development', 'organisational structure and climate', 'relationships at work', and 'extra-organisational' sources of stress such as the 'home-work interface' (Cartwright & Cooper, 1997; Cooper, Dewe & Driscoll, 2001). Table 2.0 provides examples of the (potential) stressors associated with each category.

Table 2.0 Summary of the Features of Occupational Stress

Category of Occupational Stressors	Examples of Occupational Stressors
Intrinsic to job	Work overload (quantitative/qualitative) Physical working conditions Disruptive work patterns (long hours/shift) Uneven workload demands
Role in organisation	Presence of role conflict Presence of role ambiguity Responsibility for others
Career development	Promotion prospects Hitting career plateau Uncertainty over career future Job insecurity
Organisational structure and climate	Factors specific to organisation and that culture Poor communications Incompatible management style Lack of consultation and involvement
Relationships at work	Feeling supported and trusting colleagues Poor interaction
Home-work interface	Management of demands of both work and home Coping within financial problems Experiencing life crisis

Ref: Cooper, Dewe & Driscoll (2001); adapted Cooper & Marshall (1976)

At this point in occupational stress research it was suggested that any attempt to consider the consequences of this phenomenon had to be preceded by an identification of underlying causes (Cox & Mackay, 1981). However, this approach was criticised on the basis that, in our quest to identify occupational stressors, the significance these hold for the individual was overlooked. At the same time relationships between stressors and their cumulative impact remained largely unexplored (Cooper et al., 2001).

Nonetheless, a number of constructs such as 'role conflict'; 'role ambiguity' and 'role overload' have been identified as features of occupational stress. Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) define '*role conflict*' as occurring when the individual is faced with two or more sets of pressures at the same time. A feature of role conflict is that attempts to meet one set of demands, makes it more difficult to meet any other competing set of pressures. If the individual is unclear of their role in terms of expectations and/or they do not have access to the available information or resources to meet demands, this is commonly known as '*role ambiguity*' (Kahn *et al*, 1964). In relation to teaching, one example of 'role ambiguity' would be the teacher who feels they do not have the personal and/or professional resources to implement new curriculum initiatives. For the student teacher, 'role ambiguity' could arise from the very fact that, although they are a student, they are expected to function as a 'teacher'.

Much of the early work in occupational stress research focussed on this notion of role conflict and role ambiguity. In fact Rizzo, House and Lirtzman (1972) produced the first self-report measure on these two constructs. Perhaps one of the main criticisms of research which focussed exclusively on role ambiguity and role conflict was a failure to consider the way in which personal and situational variables could moderate the extent to which each of these constructs actually led to stress and/or impacted on well being.

Another dimension of work believed to impact on perception of stress and well-being is '*role overload*'. A study carried out by Narayanan, Menon and Spector (1999) highlighted that, although research tended to focus on role conflict and role ambiguity, work overload was in fact more frequently reported. A feature of work overload namely '*role overload*' was believed to be the fit between demands and time available to meet these. Role overload would occur when decisions have to be made about which tasks can be met in the time available and which have to be basically 'placed on the backburner'. In effect, role overload occurs when the time available and level of demands are not congruent with each other. When faced with this dilemma the

individual may feel overburdened in that demands outweigh their available resources or indeed ability (Kahn, et al, 1964) to effectively manage and achieve the desired standard in terms of quality of work.

There are two dimensions to '*role overload*' within the occupational context, as well as clear evidence to indicate that '*role under load*' can also negatively impact on individuals and indeed the wider organisation in which they operate (Cooper et al., 2001). Quantitative overload refers to a situation when there is simply too much 'work' to be completed in the allotted time whereas qualitative overload is linked to changes and /or an increase in the difficulty of demands that subsequently exceed the individual's resources in terms of actual skills and abilities (Kahn, 1970). This would stretch adaptive capacities and effectively create a state of disequilibrium. While role overload can lead to stress, especially if there is a mismatch between demands and personal resources, role under load can result in de-motivated employees who are not stimulated within the workplace.

Research utilising these 'facets' of occupational stress has generated a range of potential sources of occupational stress as well as identifying circumstances which can be linked to stress. The many debates and dilemmas that have doggedly followed the development of empirically sound models of both stress and occupational stress have naturally impacted on all genres of stress research, including research concerning the exploration of 'stress in teaching'.

2.3. OCCUPATIONAL STRESS IN TEACHERS

Teacher stress is recognised as a growing, widespread phenomenon that continues to give grave cause for extensive international concern (Antiniou, Poluchroni, & Walters, 2000; Boyle, Borg, Falzon & Baglioni, 1995; Chan, 2002 & Laughlin, 1984). This concept first became part of the research agenda in the early 1970s, primarily due to the seminal work of Kyriacou & Sutcliffe (Chan, 1998). However, real concerns over teacher stress and, specifically, the consequences of this phenomenon were raised as

early as the 1930s within the field of education. Certainly, the many and varied causes and consequences of teacher stress have been repeatedly lamented since the 1980s (Milstein, Golaszewski & Duquette, 1985). Although educationalists may have good reason to be concerned about the potential impact of stress within their field, it is clearly evident that occupational 'stress' is not just unique to the teaching profession (Wilson, 2003).

The profile of occupational stress in general has risen to the extent that it is now considered a pervasive problem worldwide. Some would even go as far to suggest that this concept could be considered as a professional disease (Gold & Roth, 1993) that could potentially impact on all types of occupations, in a variety of ways. Naturally, the consequences of this 'professional disease' would be contingent on the extent to which occupations were perceived as 'stressful', and the extent to which the ensuing 'stress' was either positive or negative in affect. Interestingly, and in relation to stress in teaching, Jarvis (2003) suggests that the concept of 'teacher stress' may simply be a 'social construction' or 'social representation' (p.1). In effect, teachers' perception of their profession as 'stressful' could simply be a direct consequence of a socially constructed belief that teaching is 'stressful'.

This concept of 'teacher stress' was initially defined by Kyriacou and Sutcliffe (1978) in terms of experiences which gave rise to negative emotions, such as anger and depression. In addition, stress was seen as negative in affect and believed to arise as a consequence of some aspect of the teachers' everyday work. Interestingly, 'stress' was believed to be a consequence of the individual perception that the source of their stress was a threat to their self-esteem and/or well being (Kyriacou, 2001, p.28).

In numerous occasions teachers have been asked directly to rate the extent to which they perceive their profession as 'stressful'. Generally, about one-third of teachers within a range of studies, reported the profession as 'very stressful' to 'extremely stressful' (e.g., Borg, 1990; Borg, Riding & Falzon, 1991; Chan, 2002; Gold & Roth, 1993; Kyriacou & Sutcliffe, 1979; Pithers & Soden, 1999). However, there is

continued debate as to the validity of such findings. This is partly due to the problems associated with objectively measuring a subjective concept such as 'stress', and the well-documented limitations of self-report surveys (Blasé, 1991; Gugliemi & Tatrow, 1998). Nonetheless, there is a general consensus that teaching is indeed one of the high stress professions (Antiniou, Polychroni & Walters, 2000, Travers & Cooper, 1996; Pierce & Molloy, 1990).

Twenty years ago, Cooper and Payne (1988) conducted an analysis of occupations and attempted to rate these according to the degree of stress each was perceived to place on its respective employees. They considered teaching to be part of the 'social welfare occupations'. That is, professions who have responsibility for the welfare of others at a number of different levels. In addition they concluded that the profession of teaching was 'most stressful' within this category of profession, followed by social work. In addition, Troman (1998) also highlighted stress as a real problem within 'caring professions' such as teaching.

2.3.1. STRESSORS IN TEACHING

It would be very easy to list the aspects of the everyday teaching context, or indeed the teaching profession, that could potentially be indicted in the generation of stress in teaching. Many intrinsic dimensions of the teachers' professional context could present as potential sources of stress, such as teacher-pupil interaction, administrative duties, and communicating with parents. However the range of 'stressors' identified in the literature are not exclusive to those that are intrinsic to the daily environment in which individual teachers operate.

Stressors have also been categorised as extrinsic, systemic and organisational in nature (Jarvis, 2003). Intrinsic factors have been identified as high workload, long working hours, poor status, poor pay (Travers & Cooper, 1997; Male & May, 1997); role overload (Pithers & Soden, 1998); and classroom discipline (Jonstone, 1989, Jonstone & Munn, 1993). While 'systemic' factors relate to organisational issues/structures

emanating from the ethos and agenda, perpetuated by the educational and political climate of that time (p.3). Griva and Joeekes (2003) further classifies stressors specific to teaching as either 'first' or 'second order' in nature. First order stressors would be those that could interfere directly with the teacher's efforts to, for example, enable students to achieve their potential. Second order stressors would be perceived as perhaps not directly impacting on the teacher's everyday interactions within the school setting. Stressors within this category would be pay concerns, meeting the aims of education system and society's views and expectations of the teacher (Griva & Joeekes, 2003, p.521).

Interestingly after the 1988 educational reforms, research within the English context highlighted systemic factors such as incessant change, the way in which this was communicated to teachers/schools, the nature of government support (or lack of) during this time and the demands of curriculum change (Travers & Cooper, 1997). When a range of intrinsic and systemic stressors act in unison it is possible that this could impact on the ethos within individual schools, as well as teacher perception of stress in teaching (Jennings & Kennedy, 1996). However, it is important to acknowledge at this point that every occupation places demands on the individual. Although generic stressors are identified in the literature, it is important to acknowledge that the exact nature of 'stressors' within teaching may vary according to the individual context and country (Kyriacou, 2001).

Within the teaching profession there is clear evidence that the following are perhaps generic stressors at both a national and international level: 'high workload', 'time pressures', 'noise level', 'lack of recognition' (Pierce & Molloy, 1990); 'relationships with colleagues', 'paperwork/administration'; pupil misbehaviour', 'interaction with parents,' 'expectations of other staff', 'workload,' 'lack of resources' (Boyle, *et.al.*, 1995; Griffith, Steptoe, & Cropley, 1999., Pithers & Soden, 1998) and 'change overload' (Brown & Ralph, 1998). These are but a few of the many stressors identified in the literature as being an inherent part of the teaching profession.

While the list of stressors within teaching may appear infinite, it is important to consider that these aspects of the teaching profession are actually only considered as potential stressors. Bernard (1990) draws our attention to the fact that it is not the actual stressors that induce stress, but the way in which we react and adapt to demands and threats that determines the significance of them as potential stressors. This suggests that stressors will, not in every instance, produce a 'stress response' in the teacher. For many teachers, the challenge of balancing 'workload' within the constraints of the time available may serve as a motivating factor and be perceived as one of the many challenges of the profession. However, if a particular stressor such as workload and pupil motivation results in the teacher experiencing feelings of being unable to meet demands, this may result in an experience of stress. In effect, over time this could manifest itself in a range of physiological, psychological and/or behavioural responses that may impact negatively on the teacher at both a personal and professional level (Chan, 2002). If teachers experienced 'stress' over a protracted period of time it is conceivable that this could precipitate mental and/or physical ill health (Antiniou, Polychromi & Walters, 2000). Naturally, this must lead us to consider what factors impact on teacher perception of environmental demands, to the extent that they fully realise their potential as actual 'stressors'.

Perception in itself is part of a cognitive process and, interestingly, a number of specific cognitive factors have been cited as increasing teacher vulnerability to stress. Chorney (1998) observed that self-defeating beliefs were indicative of high levels of stress, while a significant association between internal attributions and burnout was observed in a study by Bibou-Nakou, Stoginannidou & Kiosseoglou (1999). In effect, the way in which teachers respond cognitively and emotionally to stressors can increase vulnerability to stress and/or burnout.

Stressors can be easily identified and broadly categorised with respect to the occupation of teaching. However, the notion of individual cognitive vulnerability

highlights that stress is indeed a process in which the interaction between the individual and their specific environment, and perception play a key role.

2.3.2. SUMMARY

There is a wealth of evidence highlighting specific aspects of teaching that may place the teacher under stress. A plethora of methods of measuring 'stress in teaching' have been devised and utilised to varying degrees of success. At the same time stress has been acknowledged as an interactive process. Moreover, it is clear that the teacher as a thinking, feeling, and acting being, who invariably interacts at a number of different levels with all dimensions of their occupational environment, lies at the centre of the stress process. Therefore it is not surprising that 'stress in teaching' can only be truly brought to life if we consider teachers' perception of their precise occupational circumstances and the extent to which this impacts on them. This involves a journey into their phenomenological world. The next chapter sets the scene for this journey, by outlining the methodological assumptions that underpin the three empirical studies reported in this thesis, which were specifically designed to place 'stress in teaching' within a Scottish context.

CHAPTER 3

METHODOLOGICAL CONSIDERATIONS

3.0 INTRODUCTION

This chapter comprises three sections. Section 3.1 provides an overview of the general methodological considerations that underpin social research. Section 3.2 justifies and describes the research design adopted in the research reported in this thesis. In addition, the instruments utilised in the three studies are outlined. Finally, Section 3.3 explores a range of technical and analytical issues which informed the research process.

The rationale for this research centred on a desire to contextualise ‘stress in teaching’. To make this desire a reality, it was essential that the methodological decisions enabled the research design to fully embrace the essence of the phenomenon being investigated. The research explored perception of ‘stress in teaching’ within a Scottish context. In effect, this entailed exploring a social phenomenon within an educational setting. However, as the phenomenon of stress is not a directly observable entity, any genre of social or indeed educational research exploring this concept, is rife with methodological minefields (Guiglemei & Tatrow, 1999). To establish how best to negotiate these minefields, the discourses of social science were explored.

3.1 GENERAL METHODOLOGICAL CONSIDERATIONS

The field of social science is believed to have emerged ‘*from the search for workable, useful explanations for variations in human behaviour*’ (Goldenberg, 1998, p.2). As a relatively new science, this field struggled to find ways of researching social phenomenon while at the same time, ensuring the level of credibility demanded by researchers who were concerned with the study of natural phenomenon, within the physical sciences. In a bid to explain phenomenon by valid and reliable means, this fraternity of physical scientists had developed, applied and long advocated a specific objective, systematic and

rigorous methodological approach to research. In its embryonic stages, the field of social research drew heavily on this methodological blueprint. However, the efficacy of adopting this type of methodological approach within social research came under increasing scrutiny, as social scientists pondered the challenges of attempting to, not only describe and explain but, also understand human behaviour (Cohen, Manion & Morrison, 2001). The emerging discourse served to highlight two distinct perspectives believed to underpin social research. These perspectives are commonly defined as the ‘traditionalist’ and ‘naturalistic’ paradigms (May, 1997; Pring, 2000).

3.1.1 TRADITIONAL VERSUS NATURALISTIC PARADIGMS

A paradigm can be understood as a philosophical standpoint that offers a general perspective on social reality and/or a way of breaking down the complexity of that reality. In simple terms, paradigms are shaped by a series of ontological and epistemological assumptions arising as a consequence of “the ways in which we perceive and know our social world and the theories concerning what exists” (May, 1997, p. 21). The philosophical standpoint favoured by the researcher, is generally based on assumptions concerning the nature of social phenomenon, the ways in which knowledge of social phenomenon can be uncovered and communicated, and the relationship between human beings and their environment (Blaikie, 2003). For example, within the traditionalist or ‘positivist’ paradigm the determinants of human behaviour are believed to be located outside of the individual, indicating that social reality is an external tangible entity. This represents a deterministic view of society. On the other hand, the naturalistic or ‘intepretivist’ paradigm favours a voluntaristic view of society. This view considers social beings as proactive in terms of being actors in their own play (Pring, 2000, pp13-14) rather than simply at the mercy of external forces. The naturalist would support a view of social reality in which human behaviour is shaped by the individual’s interaction with and interpretation of, their social context. In effect, social reality does not exist in isolation from the social beings’ interpretation of that context.

The assumptions underpinning each paradigm gave rise to two types of research. Firstly, 'nomothetic' research which favours procedures and methods that facilitate prediction of, and generalisations about, human behaviour (Cohen et al, 2001). And secondly, 'ideographic' research which seeks to gain an understanding of the subjects' behaviour and interpretation of their social reality. Generally, research concerned with prediction and generalisation would fall into the traditionalist, positivist, nomothetic camp while, research that seeks to understand human behaviour, would align itself with the naturalist, interpretivist, and ideographic camp.

The general methodological standpoint adopted by the social researcher usually centres on the researcher aligning themselves at one end of the traditionalist-positivistic, or naturalist-interpretivist paradigmatic continuum. However, it has been argued that this approach served to narrow the focus of research. In addition, this practice limited the potential of research to fully consider the intricacies of social life (Pring, 2000). In effect, adopting a polarised philosophical standpoint resulted in the social researcher failing to acknowledge the interaction between the individual and their social reality.

As the field of social science continued to evolve greater emphasis was placed on the process by which the individual interpreted and attached meaning to their social reality. In response to the paradigm wars, researchers began to embrace a model of research based on the work of German theorist Weber (1864-1920). This entailed a merging of a positivist emphasis on causal analysis with the interpretive/hermeneutic concept of understanding human behaviour (Swingewood, 2000, p.89). This paradigmatic synthesis epitomised the dilemmas faced by the social scientists as they tried to research a reality which many felt was, at least partially, defined by its participants (Locke, 1989; Penny & Chandler, 2000). Increasingly, variations in human behaviour were understood in terms of the individual's perception of their reality instead of, or indeed in conjunction with, external factors.

3.1.2. QUANTITATIVE VERSUS QUALITATIVE

For quite some time it was accepted that the traditionalist favoured positivistic 'quantitative' approaches to research while the naturalist would be more inclined to adopt an interpretivist 'qualitative' approach. Quantitative research is primarily concerned with gathering data that can easily be presented in numeric form. Generally the focus would be on uncovering facts and exploring causal relationships. On the other hand, qualitative research would focus on describing and understanding human behaviour from the perspective of the participant (Blaxter, Hughes & Tight, 1996, p.61). This type of research would entail gathering and interpreting data which took the form of 'text' and/or 'talk'. However, whether research is quantitative or qualitative in nature it still requires more than a sound philosophical underpinning to be deemed credible. In the first instance the researcher has to ensure the most appropriate research design is selected to meet the aims of the research.

3.1.3 RESEARCH APPROACHES

Research can either be theoretical and/or empirical in nature, where the researcher can investigate a specific phenomenon by reviewing existing knowledge and/or entering into a dialogue with participants. A range of research approaches allied to specific methodological standpoints, are available to the social researcher. These are commonly known as action research, case studies, experiments and surveys (Blaxter, et al, 1996). While action research and case studies are primarily qualitative in nature, experiments and surveys tend to favour a quantitative design. Within the framework of these four approaches researchers gather data which can be classified as quantitative and/ or qualitative. This is achieved by recognised research techniques or methods such as questionnaires, interviews, documentary and observational analysis (Rudestam & Newton, 2001).

The next section of this chapter justifies and describes the research design adopted in the

three research studies reported in this thesis. The range of survey instruments utilised in these studies is also presented.

3.2 JUSTIFICATION OF RESEARCH DESIGN (Chapters 4-6)

All researchers come to the research enterprise with their own biography as well as an understanding about firstly, the area which forms the focus of their investigation and secondly, their interpretation of the many methodological debates reverberating around the world of social research. The starting point for the researcher was to consider a series of basic ontological questions such as:

“... is social reality external to individuals imposing itself on their consciousness from without or is it the product of individual consciousness? Is reality of an objective nature, or the result of individual cognition? Is it a given ‘out there’ in the world, or is it created by one’s own mind” (Cohen et al, 2001, pp5-6).

In relation to the research studies reported in this thesis, decisions had to be made as to whether the concept of stress in teaching was an external reality and/or a consequence of an individual’s interpretation of, and interaction with, their professional environment. Based on the underlying ontological and epistemological assumptions of the traditionalist and naturalistic paradigms, stress could be defined respectively, as an objective, tangible or a subjective, intangible reality.

Following on from research in the field, it would be acceptable to adopt a positivistic approach and identify prevalence and causes of ‘stress in teaching’ within the Scottish context. A wealth of research provides detailed accounts of generic occupational stressors such as ‘workload’ (e.g. Cooper, Dewe & Driscoll, 2001). However, it also acknowledges that perception of ‘stressors’ varies from one individual to another, even when they operate within the same social or indeed educational context. In some ways, this presents the researcher with a dilemma. Should they be primarily concerned with designing an exploratory study that serves to identify external stressors specific to teaching? Or do

they require a journey into the phenomenological world of the teacher to gain a deeper understanding of stress in teaching?

3.2.1 RESEARCH DESIGN

By aligning themselves to one methodological paradigm exclusively, the researcher would be at risk of providing only a partial picture of participants' perception of the concept of stress in teaching. Especially when we bear in mind that stress is an intangible concept that does not exist in isolation from either the teachers' consciousness, or their external occupational context. On this basis, the researcher favoured a methodological mid-point and subsequently adopted a mixed-method cross-sequential survey design. This comprised three progressively focused studies designed to explore perception of stress in teaching. Within the research reported in this thesis each study incorporated a specially designed survey instrument. In addition a qualitative dimension was introduced in Study 2 and Study 3 in an attempt to explain and understand key issues highlighted by the analysis of the survey data. This involved key groups of participants participating in semi-structured interviews and structured email interviews. The mixed-method design was considered most effective in researching a intangible multi-dimensional concept such as 'stress'. In addition, it was acknowledged that the qualitative data generated by interviews could serve to confirm, enrich, compliment, expand on and perhaps even contradict quantitative findings (Jones & Summer, 2007). However, as the study was exploratory in nature and adopted a survey approach incorporating six survey instruments the balance by necessity shifted towards a primarily quantitative methodology. Nonetheless, a preliminary analysis of interview data provided further insight into participants' experiences and perceptions of stress in teaching and their unique professional context.

3.2.2 QUANTITATIVE VERSUS QUALITATIVE

The research studies reported in this thesis utilised both quantitative and qualitative research methods. Within the overall research design a decision was made to firstly quantify the extent to which participants perceived their profession as stressful and secondly, identify stressors specific to their everyday professional context. In addition, teacher perception of their well being during this time was explored partly to provide a concurrent measure of stress, but also to explore if there is a relationship between stress in teaching and well being (Dunlop & MacDonald, 2004). This approach provided baseline quantitative data that placed teacher, student teacher and inductee teacher perception of stress within the Scottish context.

However, in recognition of the active role of the individual in defining stress in teaching, a qualitative dimension was incorporated during the initial stages of the research to ensure survey instruments were reflective of the unique context of the 'teachers' participating in the studies. This involved the design of three of the research instruments. Rather than the researcher imposing their definition of 'stress in teaching' 'stress in student life' or indeed 'coping with stress in teaching' on participants, each of the three studies reported in this thesis commenced by inviting participants to 'interpret their world' (May, 1997, p.14) and identify 'stressors' pertaining to teaching, student life and coping with stress in teaching respectively. The data generated by means of this process was incorporated into self-report questionnaires utilised in Studies 1, 2 and 3.

In addition, the survey questionnaires in Study 2 & Study 3 were supplemented by semi-structured and structured email interviews respectively with a view to exploring themes emerging from the quantitative data.

3.2.3 SURVEY INSTRUMENTS

A series of self-report questionnaires containing a number of survey instruments were utilised within each of the three research studies. These varied slightly as Studies 1, 2 & 3

focused on teachers, students and inductee teachers respectively. In addition, each study became progressively more focused to ensure the research embraced the interactional model of stress. Overall six survey instruments were utilised at different points within the research. Two validated instruments measuring perception of 'well-being' were included in all three studies to provide a general measure of stress. Study 2 also utilised a validated scale to measure student teacher perception of stress in teaching. In addition, a further three instruments were designed specifically to reflect the Scottish context. These measures served to explore Stress in Teaching (Study 1 & 3); Stress in Students (Study 2) and Coping with Teacher Stress (Study 3). Each of the six research instruments are described in the following section.

General Health Questionnaire (Studies 1, 2, & 3) (App.1)

The General Health Questionnaire-30 is a 30-item scale validated on the general population (Goldberg, 1972). Participants were invited to consider their normal levels of well being and indicate the extent to which they had perceived a recent change in a range of indices of well being such as 'losing sleep over worry' and 'spending much time chatting with people'. Four options ('no change' 'no more than usual'; 'less than usual'; 'much less than usual') were presented and participants selected which most accurately reflected their normal levels of well being in recent weeks. Total scores computed for the GHQ-30 (case) provided an overall measure of well being. In addition, this score provided a means of comparing teacher perception of well being to that of a general population. It was anticipated that teacher perception of well being would be comparable to the general population.

Glasgow Symptom Checklist (Studies 1, 2, & 3) (App.2)

The Glasgow Symptom Checklist (GSC) is a 44-item scale validated within a Scottish clinical outpatient context (Mahmood, 1999). Participants were invited to rate on a scale containing four options ('very much so'; 'quite a lot'; 'slightly'; 'not at all') the extent to

which a range of psychosomatic and physical symptoms such as 'feeling helpless' and 'unable to relax' had 'bothered' them in recent weeks. The GSC contains seven sub-scales commonly labelled as Factor 1: Personal Ineffectiveness; Factor 2: Depression; Factor 3: Tension; Factor 4: Anxiety; Factor 5: Loss of Control; Factor 6: Social Avoidance; and Factor 7: Somatic Problems. Total scores computed for the GSC provided an overall measure of well being. In addition GSC Factor scores provided a means of comparing teacher perception of well being to that of a clinical outpatient population drawn from a Scottish context. It was anticipated that teachers would not report the same levels of change in well being as commonly found in the clinical population.

Placement Concerns Questionnaire (Study 2) (App.3)

The Placement Concerns Questionnaire (PCQ) was based on the Perceptions of Teaching Scale (Murray-Harvey, 1999) which is a 29- item scale validated within an Australian and Singaporean context (D'Rozario & Wong, 1996). The language in this scale was modified to reflect the Scottish context. This involved changing words such as 'supervisor to 'class teacher/mentor'. Participants in Study 2, were asked to consider each of the 29-items such as 'fear of failing'; and 'managing placement related assignments' and, in light of their recent experience of teaching, choose which of four options (1= 'never stressed me at all'; 2 = 'stressed me some of the time; 3= stressed me most of the time'; 4= 'stressed me all of the time') most accurately reflected their experiences. Four sub-scales subsequently labeled as Factor 1: Performance Evaluation; Factor 2: Professional Interactions; Factor 3: Managing Workload; Factor 4: Class Management were identified by means of a Principal Components Analysis (PCA). Total scores computed for the four PCQ Factors provided a means of identifying which specific aspects of teaching were the main sources of stress for student teachers within this Scottish context.

Embracing the Scottish Context

Three new instruments were developed specifically to place stress in teaching within the Scottish context. Rather than impose the researcher's perception on the participants, the research placed their interpretation of 'stress' and 'coping' centre stage, by involving them in the initial identification of sources of 'stress' in teaching, 'stress' in general student life and ways of 'coping' with stress in teaching. This acknowledged both the uniqueness of their context and the fact that stress in teaching can only be truly understood through the lenses of the individual participant (Pring, 2000). The development of each of these instruments is outlined in detail in the relevant chapters (Chapters 4-6).

Stress in Teaching Scale (Studies 1 & 3) (App.4)

The Stress in Teaching Scale (SITS) was used in Study 1 and Study 3 to explore fully-fledged teachers and inductee teachers' perception of stress in teaching respectively. Participants were invited to reflect on their recent experience and indicate the extent (0= 'not at all' stressful; 1= 'slightly' stressful; 2= 'quite' stressful'; 3= 'very' stressful) to which a total of 64- items such as 'large class size' and 'job security' had 'stressed' them in their everyday professional life. Four sub-scales were identified within SITS Factor 1: Work Overload; Factor 2: Professional Ethos; Factor 3: Teaching-Learning Interface and Factor 4: Perceived Support. Total scores computed for the four SITS Factors provided a means of identifying which specific aspects of teaching were their main sources of stress for participants with this Scottish context.

Stress in Student Scale (Study 2) (App.5)

The Stress in Students scale (SIS) was used in Study 2 to explore student perception of general stress associated with being an Initial Teacher Education (ITE) student within this Scottish context. This measure was included in recognition of the fact that student stress

in general could impact on perception of stress in teaching. Participants were invited to reflect on their experience as an ITE student and indicate the extent (0 = 'not at all' stressful; 1 = 'slightly' stressful; 2 = 'quite' stressful'; 3='very' stressful) to which the 30 SIS-items stressed them in their everyday student life. Four sub-scales were identified within the SIS scale: Factor 1: Course Demands ; Factor 2: Perceived Efficacy; Factor 3: Personal Professional Interface and Factor 4: Perceived Support. Total scores for the four SIS factors provided a means of identifying which specific aspects of being an ITE student were the main sources of stress for participants within this Scottish context.

Coping with Teaching Stress Scale (Study 3) (App.6)

The Coping with Teaching Stress (CWTS) instrument was designed specifically to explore the ways in which participants commonly responded to and/or coped with stress in teaching. CWTS comprised 39-items and invited participants in Study 3 to indicate the extent (1= 'not at all'; 1= 'some of the time'; '3= 'most of the time'; 4='all of the time') to which they responded to stress in teaching by using strategies such as 'playing sport' and 'using support of family/partner' during their teaching experiences. In addition, they were also asked to indicate the extent (1= 'not at all'; 1= 'some of the time'; '3= 'most of the time'; 4='all of the time') to which each 'response' was effective in helping them cope with stress in teaching. CWTS served to identify the nature of the main coping strategies employed by participants as well as providing an indication of how effective a range of strategies were believed to be within this Scottish context.

Semi-Structured Interviews (Study 2) (App.7)

The initial findings from Study 2 indicated that postgraduate students perceived teaching as significantly more stressful than the undergraduate cohort therefore a decision was made to focus specifically on this group at this point in the research. Consequently individual semi-structured interviews were utilised to gain a more in-depth understanding

of the postgraduate perception of stress in teaching. An interview protocol was developed to gain further insight into the postgraduate students' retrospective perception of stress in teaching. Themes covered were related to participants' experiences of teaching and factors impacting on their perception of stress in teaching (See App.7).

Structured Email- Interview (Study 3) (App.8)

The intention at this point in the study was to ensure that the interactional model of stress was in fact fully embraced. Participants in Study 3 had provided information regarding their perception of stress in teaching and the ways in which they commonly coped with stress in teaching during the time of the induction. The interview protocol adopted at this point was specifically designed to consider their perception of their occupational context in conjunction with their perception of stress in teaching. Participants were invited to reflect on their induction experiences and firstly, list five key words to describe their perception of the inductee context. Secondly, they were asked to highlight which factors made teaching 'more stressful' and 'less stressful' during the induction (See App.8).

3.3 TECHNICAL AND ANALYTICAL ISSUES

This section outlines a range of technical and analytical issues considered during the development and implementation of the survey questionnaires and interview protocols, utilised in the studies reported in this thesis. In the first instance, these issues are discussed in relation to questionnaires and quantitative data. Secondly, the technical issues associated with interviews (smie-structured and email) and the analysis of qualitative data are explored.

To be deemed credible any research design must enable valid and reliable data to be generated. In simple terms, validity is dependent on the extent to which the measures or instruments utilised within the research actually measure what they are intending to measure. Reliability on the other hand, is dependent on the procedural quality of the

research in that it should enable other researchers to consistently generate similar findings (Blaxter, et al., 1996; Rudestam & Newton, 2001). There are recognised procedures that can address issues of validity and reliability within both survey questionnaires and interviews. It is also crucial that the research design takes cognisance of the precise ‘purpose of the research, the timescale and constraints on the research, the methods of data collection and the methodology of the research’ (Cohen et al., 2001, p.104). Generally, the survey approach adopted in this study is criticised for merely providing a snapshot of the phenomenon being investigated. Some would argue that this approach sacrifices depth of understanding by simply scratching the surface of the social phenomenon being researched (Kumar, 1997). To counteract this limitation, the researcher built a qualitative dimension into Studies 2 and 3. This served to add a degree of method triangulation in that findings from the quantitative aspects of the research could be explored further and validated by the qualitative data (Jones & Summer, 2007). In effect, a preliminary analysis of the qualitative data provided a means of understanding why participants perceive teaching as ‘stressful’ (or not) (see Chapters 5 & 6).

3.3.1 SURVEY QUESTIONNAIRES

The survey questionnaire approach, adopted in the studies reported in this thesis, is considered notoriously problematic in terms of achieving ‘low response’ rates. In addition, findings can also be compromised by the participants’ level of understanding and the extent to which they may respond in a socially desirable manner (Blaxter, et al., 1996; Kumar, 1999). Moreover, the researcher has to take cognisance of the issue of volunteer bias (Cohen et al., 2001). In effect, the fact that participants either elect to participate or not in the study can influence findings. Within the context of the studies reported in this thesis, there would be no way of knowing whether those who refrained from taking part in this study were more or less stressed than those who did participate. To account for problems with response rates and volunteer bias the researcher maintained

personal contact with all groups of participants throughout each of the studies. Within these studies, non-responses were followed up systematically, persistently and personally. Although the researcher took steps to ensure a good response rate, findings may have been compromised in Study 1 and Study 3, as questionnaires were delivered by post.

Validity was further maximised within the research process as steps were taken to eliminate any potential bias by adopting appropriate sampling procedures (Kumar, 1999). Sampling procedures can be defined as random/probability or non-random/non-probability. Different strategies can be adopted within each. In the case of non-random/non probability sampling the researcher decides which groups are most likely to provide a representative view of the topic under investigation (Cohen, et al., 2001). If the research is intended to enable generalisations to be drawn, then the sample should be representative enough to allow this.

Within the research reported in this thesis, it was not feasible to include every secondary school teacher, student or inductee teacher associated with this large Scottish ITE faculty in the research. However, it was important to ensure a representative view of participants' perception of stress in teaching. Therefore, a purposive sampling strategy was adopted. This is a non-probability sampling strategy in which participants are selected as they are well placed to provide some insight into the topic under investigation (Kumar, 1999). One limitation of this strategy is that it relies on the researcher's judgement concerning what constitutes a representative sample, as well as the researcher's accessibility to the sample population.

The extent to which the research methods and instruments effectively generate data which meets the research aims and provides answers to the research questions is also crucial to ensuring validity (Kumar, 1997, p.137). In relation to research instruments, Kumar (1997) identifies three different types of validity: 'face'/'content'; 'concurrent' and 'construct' validity. Within this research face and content validity was established by involving participants in the initial stages of the development of a number of the survey

instruments. In addition, all questionnaires were piloted with a view to increasing their reliability (Cohen et al., 2001). In each pilot study, a proportion of participants (ten per cent) similar to those included in the main study were invited to complete questionnaires. These participants provided feedback on all aspects of the questionnaire such as clarity of questions, layout and the time taken to complete the questionnaire. Subsequently, any modifications deemed appropriate were made prior to the main study.

Concurrent validity is established by following a procedure designed to compare a specific research instrument such as the Stress in Teaching Scale against a similar measure such as the Glasgow Symptom Checklist. Participants would complete both instruments at a specific moment in time and concurrent validity would be established by comparing both sets of responses.

Finally, construct validity is a means of exploring the contribution of a range of constructs to variance within a specific measure such as the Stress in Teaching Scale (SITS). Construct validity can be established by conducting Principal Components Analysis (PCA). Research instruments developed specifically for the studies reported in this thesis were compared against a range of validated measures such as the GHQ-30 /GSC and where appropriate subjected to a PCA to establish concurrent and construct validity respectively.

Reliability of research instruments can be established at a number of levels (Cohen et al., 2001). Within this research the reliability of survey instruments was further explored by examining participants' responses to the survey questionnaire on two occasions, but one week apart. This technique (test-retest) is used to establish the relationship between answers provided to the same questions by the same people at a different moment in time. For the instrument to be deemed reliable an alpha value of $p \leq .5$ and above is required (Pallant, 2005). In effect, the higher the alpha value the more 'reliable' the instrument (Kumar, 1999. p. 141)

3.3.2 ANALYSIS OF QUANTITATIVE DATA

Three different data sets were generated which were specific to each of the three studies reported in this thesis. There were differences in data sets as questionnaires were designed to suit the context of the teacher, student teacher and inductee teacher respectively. However, as questionnaires were underpinned by three generic research questions (Chapter 1, p.6) and designed to specifically explore stress in teaching within the Scottish context, there were of course commonalities in the data sets. In effect, all studies generated demographic, data pertaining to general perception of stress in teaching, perception of stress in teaching (SITS, PCQ) and perception of changes in normal levels of well being (GHQ-30, GSC).

In the first instance, the researcher firstly defined the quantitative data according to research conventions, prior to selecting the appropriate statistical techniques for subsequent analysis. Within the research reported in this thesis a common approach was adopted to the analysis of quantitative data. All data was input into the SPSSv14 package, cleaned and checked for errors. To provide an overview of the characteristics of the sample and their perception of stress in teaching univariate descriptive analysis was utilised. When data was nominal (discrete) in nature this entailed exploring the frequency and percentages of cases falling into specific categories such as number of males and females and number of participants perceiving teaching as 'very stressful'.

As all self-report scales, such as the Stress in Teaching Scale, were ordinal in nature, measures of central tendency such as mean (M) and standard deviation (SD) were used to explore and describe ordinal level measurements. Depending on the nature of the sample within each of the three studies, and the number of independent and dependent variables, a series of parametric and non parametric statistical techniques were conducted to explore differences in variables such as well being (GHQ/GSC) in relation to independent variables such as age, gender and level of study. Details of techniques employed are contained in the methods sections of Chapters 4, 5 & 6.

3.3.3 DATA REDUCTION

Studies 1 & 3 comprised 400 and 197 participants respectively and, a number of survey instruments, therefore multivariate data sets were generated. To explore the underlying constructs of each of the survey questionnaires it was appropriate to conduct an exploratory Principal Components Analysis (PCA). This type of statistical analysis explores

‘large data sets and looks for ways in which the data may be ‘reduced’ or ‘summarised’ using a smaller set of factors or components. It does this by looking for ‘clumps’ or groups, among the inter-correlations of a set of variables’ (Pallant, 2005, p. 172).

Within the context of this research, PCA was conducted to explore the underlying structure of the Stress in Teaching Scale (SITS) and the Stress in Students (SIS) measure. In addition this technique served to confirm sub-scales previously identified within the Placement Concerns Questionnaire (PCQ).

Like many statistical techniques a number of conditions related to sample size, ratio of participants to items within scales and the degree of correlation between scale items, require to be met to ensure that PCA is the most appropriate technique to use. There is some debate concerning these conditions (Tabachnick & Fidell, 2001). However, it is generally agreed that PCA is appropriate when the sample is no smaller than 150 participants and the ratio between participants and scale items is 5:1. The ratio does however vary from 5:1 and 10:1 to every item (Pallant, 2005, p. 174). In relation to Studies 2 & 3 conditions related to sample size (Study 1 N=400; Study 2 N=197), correlations between scale items ($r \geq .3$) and the ratio between participants and scale items (SITS 6:1; PCQ 8:1; SIS 7:1) were all met. Therefore data reduction (PCA) was deemed acceptable.

3.3 4 INTERVIEWS

Interviews like the survey questionnaire have a number of limitations that have to be considered by the researcher. For example, it is well documented that conducting interviews demands a high degree of skilled interaction between researcher and participant. In addition transcribing and analysing interviews is a time-consuming process (Marshall & Rossman, 1999). The researcher also has to take cognisance of the ways in which their presence during the interview can be a potential source of bias in that they can 'lead' participants. This can produce responses which are reflective of the interviewer's agenda rather than experiences and views of the participants. Moreover, within the interview setting respondents may feel compelled to tell the researcher what 'they want to hear'. This phenomenon is commonly referred to as the Hawthorne effect (Jones, 1992).

The validity of qualitative data can be compromised by the approach taken to the analysis and the manner in which findings are reported. The researcher's approach to analysis of interview data can influence findings in that their interpretations of participants' thoughts and experiences may not be authentic. In addition, Silverman (2000) highlights those researchers can bias findings by presenting a primarily descriptive and/or anecdotal account of participants' responses. Moreover, bias can also arise when responses are portrayed to reflect the researchers' perspective and agenda. Fortunately, a number of recognised procedures can be followed to ensure the validity and reliability of data generated by means of interviews. Within qualitative research validity is believed to be the key determinant of the extent to which this type of research is deemed credible (Marshall & Rossman, 1999, p. 192). Validity can be established at the 'internal' and 'external' level. In relation to internal validity within this study, the researcher pre-tested interview protocols, recorded and transcribed (Study 2) or stored responses electronically (Study 3). In addition, field notes were gathered during the semi-structured interviews. These notes provided a means of triangulating interview responses as this process brought

‘together more than one source of data to bear on a single point’ (Marshall & Rossman, 1999, p. 194). Moreover, this added a degree of external validity as findings could then be more easily transferred to other similar settings (Rudestam & Newton, 2000). In relation to interview data, a process of inter-rater reliability was utilised to assess the extent to which categories established by the researcher accurately reflected and at the same time subsumed the qualitative data. This process can serve to demonstrate the authenticity and trustworthiness of data (Silverman, 2000).

3.3.5 ANALYSIS OF QUALITATIVE DATA

On the basis that they perceived teaching as ‘very’ stressful postgraduate students (Study 2) were selected to complete semi-structured interviews immediately following their final placement. Within Study 2 a qualitative dimension was specifically introduced to further explore why postgraduate students specifically experienced teaching as ‘very’ stressful. To add a longitudinal element to the research and for comparative purposes, the postgraduate cohort of students were then followed into the induction year (Study 3). In addition to completing questionnaires during the time of the induction they also completed structured email interviews towards the end of the induction year. Email interviews were conducted with a view to exploring participants’ retrospective perception of their unique professional context. While there are clear limitations to email interviews (Opdenakker, 2006) time constraints and the feasibility of personally meeting with teachers placed in schools across the length and breadth of Scotland (see Chapter 6) made individual face to face interviews problematic. This form of interviewing is considered useful in allowing the researcher extended access to participants (Coomber, 1997). On the other hand this medium restricts the extent to which the interviewee and participant can interact and there is no opportunity for the researcher to note non verbal behavior or prompt and probe to further engage the participant.

Study 2 and Study 3 generated qualitative data in the form of interview transcripts and electronic copies of interviews respectively. Of course, a full analysis of all interviews was

considered too extensive at this point in the research process as the researcher merely sought in the first instance to further explore the perceptions of the postgraduate and inductee teacher and, in addition, place these within the context of the quantitative findings. It is fully intended that this preliminary qualitative analyses will inform a more in-depth exploration of interview data in the near future.

The researcher had a number of options open to them as they attempted to make sense of, identify and interpret, patterns within the qualitative data generated. Data can be analysed within a framework set by either the research questions and/or the researcher themselves. Once this framework has been finalised the researcher can then elect to identify themes within the responses. This process is referred to as content analysis (Rudestam & Newton, 2001). Alternatively, the 'constant comparative method' can be utilised. This technique is one example of an analytical tool which draws on the principles of grounded theory (Strauss & Corbin, 1998). Constant comparative method is based on a process of induction in which the researcher allows ideas and theories to 'emerge' from the data. Normally, no predetermined categories would be applied to the data. Within this process, data would be annotated, coded and categorised to the point that all responses are subsumed by the categories established. In effect, all categories would be 'saturated' (Dye, 2000).

In Study 2, interviews were primarily conducted to explore why specific groups of students perceived certain dimensions of 'teaching' and 'student life' as significantly more stressful. In relation to Study 2 issues highlighted in the quantitative phase of this study, served to shape the initial analysis of interview data. More specifically interview data was explored in relation to the factors considered as significantly stressful for students during the time of the study. These factors were Performance Evaluation, Managing Workload and Class Management. In addition, data was also explored in relation to Perceived Efficacy as this was highlighted as a significant source of stress within student life. Interviews conducted during Study 3 simply invited participants to identify factors that made teaching 'more' and 'less' stressful during the induction year. Consequently data was initially explored in relation

to these two categories.

A common approach was adopted to analyse interviews responses in Study 2 & 3. To 'prepare the ground for analysis' data was actively read (Dye, 2000, p.83) and re-assembled within the framework described previously. This process generated a number of themes. In relation to Study 2 one theme that appeared to be replicated in relation to Performance Evaluation was 'Adapting to Evaluation'. To test the robustness of the emerging categories such as 'Adapting to Evaluation' within Study 2 and 'Professional Ethos' within Study 3, categories were systematically applied across all relevant responses. At this point a process of constant comparative analysis was adopted (Dye, 2000; Rudestam & Newton, 2002). Although a framework had been initially imposed on the qualitative data the constant comparative method brought an inductive element to the analyses of interview data generated within Study 2 and Study 3 (Further details of the analytical approach adopted is outlined in Chapters 5 & 6). This approach to analysis in which *a priori* categories are identified is often terms as 'framework analysis'. However, while categories and themes may be defined prior to engagement with the qualitative data the subsequent analysis is inductive in that this framework may be modified and changed as the analyses progresses (Potter, 1996).

3.3.6 THE THREE STUDIES

The research reported in this thesis comprises three distinct but related studies designed to explore perception of stress in teaching. The central aim of the research was to explore teachers' perception of stress in teaching and place this within the Scottish context. The participants in Study 1 were Secondary School Teachers (N=400). Study 2 shifted focus to Student Teachers (N=197) currently studying physical education within an Initial Teacher Education (ITE) faculty. Based on the findings from Study 2, the final study (Study 3) followed the Postgraduate Student cohort (N=21) into, and through their first year of teaching as Inductee Teachers.

CHAPTER 4

STUDY 1: SECONDARY SCHOOL TEACHERS' PERCEPTION OF STRESS IN TEACHING

4.0 INTRODUCTION

This chapter comprises four sections. Section 4.1 places 'stress in teaching' within the Scottish context by providing an overview of relevant research. The research questions underpinning the study reported in this chapter are also included at the end of this section. This initial study is the first of three empirical studies designed specifically to explore perception of stress in teaching within a Scottish context. Section 4.2 provides an overview of the methodology adopted within the study. Section 4.3 presents the study's main findings. Finally section 4.4 comprises a discussion that places findings within the context of research in the field. The starting point for the research reported in this thesis was based on the premise that stress is conceptualised as a

“...psychological state that arises when there is a personally significant imbalance or mismatch between the person's perceptions of the demands on them and their ability to cope with those demands” (Cox & Ferguson, 1991, p.9):

While the researcher acknowledges the interactional nature of stress in teaching and, the role of personal and situational factors such as coping and context within this, it merely seeks in the first instance, to generate baseline data to illuminate teacher perception of 'stress in teaching', within a Scottish context.

4.1. STRESS IN TEACHING: OVERVIEW OF RELEVANT RESEARCH

The notion of 'stress in teaching' continues to receive increasing media attention, partly due to a number of litigation cases in the UK, and growing problems with teacher recruitment and retention across the UK (Hepburn & Brown, 2001; Jarvis, 2003, Wainwright & Calnan, 2002). Concerns have also been voiced about the increasing number of teachers leaving the profession prematurely on the basis of ill health (Dunlop

& MacDonald, 2004). In addition, it has been suggested that teachers who are under stress tend to exhibit higher rates of absenteeism, experience a decline in their professional performance and subsequently suffer from low self-esteem and reduced levels of motivation (Brember, Brown, & Ralph, 2002). In effect, their personal and professional efficacy, productivity (Laughlin, 1984) and levels of job satisfaction (Eckles, 1987) can be seriously compromised. For some time it has also been suggested that disillusioned teachers face the prospect of developing a range of physical, emotional and behavioural stress related problems (Milstein, Golasewski & Duquette, 1984). At the same time the difficulties associated with objectively quantifying the 'effects' and indeed impact of stress in teaching and establishing a link between stress and health concerns has also been acknowledged (Chan, 2003; Guigleml & Tatrow, 1998). Nonetheless it is acknowledged that if the teacher is exposed to stress that is cumulative in nature there is a risk of 'burnout' which like its counterpart stress is associated with high rates of teacher early retirement through ill-health (Unterbrink, Hack and Pfeifer, et al., 2005).

Burnout in the form of fatigue and weariness was first defined by Freudenberg in 1974. Over time, this 'state' has been associated with physical, emotional and mental exhaustion which can result as a consequence of disillusionment (Pines & Aronson, 1993). Burnout appears to be prevalent in professions who have a duty of care to their clients (e.g., teaching) and is defined by Maslach and Jackson (1981) as a 'syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that can occur among individual who do "people work" of some kind' (p.1). The personal and professional cost of burnout within teaching is a real concern. The teacher who has reached a level of exhaustion which prevents them from engaging with their pupils and colleagues (depersonalization) is at risk of experiencing low self esteem as a consequence of issues concerning personal accomplishment. Friedman (2000) highlights that role of self-efficacy and personal accomplishment in the development of burnout. In effect, the teacher who is perhaps not managing to meet professional demands could become caught up in a downward spiral leading to feelings of failure and doubt over their efficacy as

'teacher'. At a professional level, this could impact on the quality of pupil learning and achievement (Koustellios & Tsglis, 2005). As well as being susceptible to a range of physical and psychological issues such as cardiac disease, depression and anxiety there is evidence to suggest that there is a link between burnout and increased absenteeism, low commitment to teaching, lowered expectations of pupils and teacher disengagement from pupils (Farber, 1991).

A range of factors have been identified as increasing teacher susceptibility or indeed risk of burnout. These are occupational hazards, personality factors and occupational conditions (Feijgin et al., 1995; Friedman & Lotan, 1993). Occupational hazards refer to the expectations society and parents have of 'teachers' and education. As part of the 'caring' professions the teacher fulfills multiple roles (Smith & Wei Leng, 2003) in terms of facilitating the cognitive, emotional, personal and social development of their charges. Meeting expectations and managing the many roles associated with being a teacher could lead to burnout if teachers felt they not equipped to live up to their own and others expectations (Farber, 1984).

While the study reported in this chapter does not directly focus on the issue of burnout it is important to recognize the link between stress in teaching and 'burnout'. Research has indicated that issues pertaining to large class sizes, high work load, pupil's behavior, changes in the education system, low occupational image and lack of support from colleagues and school heads are all sources of stress for the teacher (Unterbrink et al., 2007). It is conceivable that over time exposure to 'stressors' such as these could lead to 'burnout' although it is wise to acknowledge that personality and the teacher's precise occupational conditions also play a role in the development of the state known as burnout (Feijgin et al., 1995; Friedman & Lotan, 1993).

4.1.1. THE SCOTTISH CONTEXT

When a Teacher Support Service (TSS) was launched in Scotland in 2001, to specifically address the issue of stress in teaching, it was suggested that there appeared to be 'an

absence of research demonstrating the need or demands for such a service' (Wilson, 2003, p.21). At some level there was a degree of accuracy about this statement in that studies focusing on 'teachers' within the Scottish context, did not explicitly set out to gauge whether the prevalence of 'teacher stress' warranted such a service. However, it is fair to say that a range of empirical studies (e.g. Johnstone & Munn 1993; Pithers & Soden, 1998) and reviews (e.g. Johnstone, 1989; Wilson, 2003) of stress in teaching have certainly provided some insight into the phenomenon of teacher stress within the Scottish context.

In 1993 a study (N=570) commissioned by the Education Institute for Scotland (EIS) was conducted to explore teacher workload in conjunction with the issue of stress in teaching. Based on workload diaries and scores for the Occupational Stress Index (Cooper, Sloan & Williams, 1988) 'stressors' were identified. The effects of stress and teacher management of 'stress', were also examined in some detail. Workload was the most frequent source of stress reported. It was also apparent that the demands of administrative tasks in general and embracing and implementing change were also perceived as 'stressors'. Symptoms of stress, reported by participants were either physical or mental in nature such as headaches and anxiety respectively (Johnstone & Munn, 1993, p .iv). Within this Scottish context, teachers exhibited relatively high stress profiles in relation to the Occupational Stress Index (OSI) norms. In addition, small positive correlations ($r = .3$) were observed between the number of stressful incidents reported during the week of the study, and scores on the four sub-scales of the OSI. These scales related to mental and physical health, pressure intrinsic to teaching, and pressure associated with balancing the homework interface. It is of some concern, that teachers within this Scottish context were deemed more likely to record poorer mental and physical health scores, than both the general population and managers respectively (p. 31).

Interestingly, when this study was repeated eight years later, but with a much larger sample (N=3000), the hours worked by teachers remained very similar (Hall, Wilson,

Sawyer & Carroll, 2000). However, in spite of this participants' perception was that their workload had increased in recent times. Hall et al., (2000) suggested that this anomaly highlights the key role that 'perception' (p. 19) plays in defining our professional reality. Within the context of this study, 79 per cent of teachers with more than 15 years of teaching experience indicated that their workload had increased 'a lot'. The fact that 28 per cent of participants with less than five years of teaching experience also perceived an increase in workload, led Hall et al (2000) to postulate that recent changes, such as curriculum initiatives, had contributed to a perceived increase in workload all round.

In a comparative study, Pithers & Soden (1998) concluded that teachers within the Scottish and Australian Further Education context, exhibited levels of stress associated with the normal range for OSI scores. Within this study, 'workload' was also classified as a main stressor, along with 'lack of resources' and 'lack of time'. It has been suggested that the combination of stressors identified in this study are representative of 'role conflict'; 'role ambiguity' and 'role overload' (Dunlop & MacDonald, 2004).

More recently, during a Scottish national debate on education for the 21st Century a number of areas of concern were highlighted. These pertained to concerns about curriculum reform on one hand, and resources and pupil behaviour on the other (Munn, Stead, McLeod, Brown, Cowie, McCluskey, Pirrie. & Scott, 2004). Pupil behavior in terms of 'indiscipline' remains high on the agenda within the Scottish context. Recently the final report from a survey that explored perception of 'indiscipline' in 1992, 1996 and 2004 raised concerns regarding the 'increasing number of secondary school teachers reporting a wide range of potentially disruptive 'behaviours' in the classroom and around the school' (Munn, Johnstone & Sharp, 2004, p. 65). However, it was also made clear that perception of the types of behaviour classified, as 'indiscipline' is context specific.

Around the same time as this National Debate a large study (N=488) explored teacher health and well being within the Scottish context (Dunlop & MacDonald, 2004). On a positive note, 87 per cent of participants rated their general health as 'good'.

Interestingly, 44 per cent of participants rated teaching as 'very' to 'extremely' stressful. In addition, 90 per cent of participants indicated that their levels of stress had increased in the last five years (1998-2003). It was also noted that four out of ten participants who rated teaching as 'extremely stressful' also indicated their health was only 'fair' or 'poor'. Those reporting poorer levels of health also reported experiencing extreme levels of stress in conjunction with job dissatisfaction. A larger proportion of males rated their health as poor in comparison to females. Participants who were in the early stages of their career were more likely to rate their health as 'excellent'. Overall, senior managers as in head and depute head teachers, rated their health more favourably, than either class teachers or middle managers. Within this study findings indicated a significant association between length of service and personal conviction that there was a link between stress in teaching and general health. This was especially apparent in relation to teachers with 15 and more years of teaching experience. Pupil 'indiscipline' was the main source of stress for teachers but more so in relation to secondary school teachers which corroborates the findings of Munn, et al. (2004). It is important however, to note that around 64 per cent of participants indicated that 'stresses' outwith their work impacted on their professional performance.

4.1.2 CHANGES IN SCOTTISH EDUCATION

Prior to exploring the Scottish secondary school teacher's perception of stress in teaching it is important to consider the climate in which teachers were situated leading up to the time of the study (2004) reported in this chapter. Since the industrial dispute of the 1980s which was fuelled by teachers' concerns about pay, conditions and indeed professional status (Pickard, 2003) change has been a constant in Scottish education. In the early 1990s policies such as 'Curriculum and Assessment- a Policy for the 90s' (Scottish Education Department, 1987) heralded far reaching changes in the nature and delivery of a 'common' curriculum within Scottish Schools. As this policy became a reality teachers were charged with implementing a 'new' 5-14 (1992) and subsequently 16-18 curriculum

commonly known as Higher Still (2000). The 5-14 curricula aimed to provide breadth, coherence and continuity across primary schooling and the early years of secondary. While the Higher Still curriculum phased in from 2000 onwards in Scottish secondary schools sought to provide opportunity for all (Scottish Office, 1994) by offering a tiered pathway to 'higher' and 'advanced' qualifications for upper school students.

Like all teachers faced with implementing curriculum initiatives the Scottish teacher was charged with making sense of the rationale behind both these curricula, developing the appropriate resources from at times centrally produced materials and subsequently assessing and reporting on pupil attainment. Advice on teaching, learning and assessment within each of these initiatives resulted in teachers have to reconsider and refine pedagogical techniques to ensure the rationale of each curriculum initiative was implemented effectively. During this time of change a 'cascade' approach was adopted (Brewer & Sharp, 1999) to provide teachers with the professional development required to effectively implement these new curricula. This entailed in-service provision for senior and middle managers, who in turn then worked with their colleagues in planning the implementation, assessment, monitoring and evaluation of the 5-14 and 16-18 curricula.

Against this backdrop of curriculum and policy change, it has been suggested that 'since 1996 secondary schools in Scotland have had to deal with change on an unprecedented scale' (Lennon, 2003, p.418). In addition to changes in the structure of the Scottish curriculum, changes at government level and changes associated with a restructuring of the profession of teaching have impacted on education, schools and the everyday reality of teachers and pupils. The reestablishment of the Scottish Parliament in 1999 resulted in the Scottish Government and the Minister for Education having devolved responsibility for educational policy (O'Brien & Christie, 2008). Subsequently, national priorities for education pertaining to the following five broad areas were approved by the Scottish Parliament in December, 2000: achievement and attainment; framework for learning; inclusion and equality; values and citizenship and learning for life (Humes,2003,pp77-8).

The implementation of policy designed to embrace national priorities has involved a period of change and adaptation for schools and teachers alike. For example, policies pertaining to inclusion and equality (Standards in Scotland's Schools Act, 2000) saw an increase in the number of pupils with special educational needs being included in mainstream schools. Teachers were charged with introducing and developing new curricular and pedagogical practices, raising attainment in addition to providing on campus support for the young people who were at risk of exclusion and pupils with additional learning needs. Raising attainment while meeting the national priority of providing an inclusive /equitable education would certainly hold challenges for local education authorities, schools and teachers.

In addition, Scottish teachers have been at the centre of a radical restructuring of the profession based on the McCrone agreement (SEED, 2001). This agreement arose from a process of extensive consultation between the Scottish Executive, teachers, unions and the wider educational community. As part of this agreement, which saw a phased increase in teachers' wages across the board and, in a bid to prepare teachers for the challenges of teaching in the 21st Century, a formalised national framework for continued professional development (CPD) was proposed. As a consequence of this agreement the existing Professional Development Framework of Standards for Scottish Teachers has been further developed to include the following: Induction Standard (2002); the Chartered Teacher Standard (2002); Standard for Headship (2005). Each of these CPD routes builds on the Standards for ITE set by the Quality Assurance Agency for Higher Education (QAAHE) in 2000 (O'Brien, 2006, p.3).

In current times, CPD is seen as a professional entitlement requiring a formal approach to indeed ensure teachers are supported and equipped to meet the challenges such as those posed by embracing initiatives such as : New Community Schools (1999); Enterprise and Life-Long Learning (2000); Assessment is for Learning (2004); Health Promoting Schools (2002) and more recently the Curriculum for Excellence (2004). During this time

of restructuring teachers experienced a level of uncertainty due to school mergers and a move to change the career structure within schools. This impacted on middle and senior managers in that faculty heads (health and well being) were introduced rather than discrete subject heads such as the principal teacher of physical education. It would appear that schools and teachers from 1992 onwards were at the centre of changes that would impact on what and how they taught. In response to the McCrone agreement (SEED, 2001) continued professional development was increasingly considered as an entitlement with teachers at all stages of their development being actively encouraged to take ownership of their personal and professional development. The Scottish secondary school teachers' perception of stress in teaching must be considered within this context of the range of changes outlined in this section.

The Scottish Education System may be unique in that it 'has always had its own separate and distinctive education system within the United Kingdom' (O'Brien & Christie, 2008, p. 147). Nonetheless, the plethora of changes experienced by Scottish teachers and schools during the last ten to twenty years, are similar to those experienced by their colleagues south of the border (Brown & Ralph, 1998). In this time of unprecedented change within Scottish education it would be indeed timely to explore the Scottish teachers' perception of stress in teaching. It is some time since secondary school teachers exclusively have been invited, directly to provide a contemporary perspective of their perceptions of 'stress in teaching', within the Scottish context.

International and national research certainly provides us with a blueprint for an exploration of stress in teaching within a Scottish context, however, it is only right that we embrace the 'uniqueness' of teachers' precise occupational circumstances (Kyriacou, 2001). In light of this, the study reported in this chapter set out, in the first instance, to explore secondary school teachers' perception of stress in teaching within the Scottish context. Perception of 'well being' was also explored on the basis that Dunlop and MacDonald's (2004) recent study had identified a significant perceived association

between stress in teaching and general health within a Scottish teacher context. In effect increased levels of stress in teaching were associated with a range of health concerns. The following research questions underpinned the study reported in this chapter.

4.1.3 RESEARCH QUESTIONS

- **RQ1:** To what extent do secondary school teachers within the Scottish context perceive teaching as 'stressful'?
- **RQ2:** Are there any specific variables which impact on these secondary school teachers perception of stress in teaching?
- **RQ:** Among these secondary school teachers, is there any relationship between perception of stress in teaching and perceived well being?

4.2. METHODOLOGY

4.2.0 ETHICAL CONSIDERATIONS AND INTRODUCTION

Ethical approval was granted for each of the three studies reported in this thesis by the University Ethics Committee. In addition, Head Teachers approved access to their schools and teachers. All teachers, student teachers and inductee teachers who participated in the study did so voluntarily. Participants were fully briefed prior to the study and allowed access to a summary of the main findings as each study was completed. All participants gave their informed consent prior to taking part in the study (Sample ethical clearance and informed consent forms can be found in Appendix 9 & 10.). In the cases where groups of participants were found to be experiencing significant levels of stress and changes in well being appropriate steps were taken to ensure this was addressed. This entailed providing information on the Teacher Support Service Scotland and providing a series of debriefing meetings for student teachers on completion of their final placement. The following section provides an overview of the methodology adopted within Study 1, which explored secondary school teachers' perception of stress in teaching within the Scottish context.

4.2.1 DESIGN AND PARTICIPANTS

A self-report questionnaire survey comprising three sections was designed for this study. The questionnaire gathered quantitative data regarding teachers' general perception of stress in teaching, their perception of stress within their everyday professional context and their perception of well being during the time of the study. The study targeted the central belt of Scotland. Eighteen different schools volunteered to participate in Study I. From a target population of 584 teachers a 68.4 per cent (N=400) response rate was achieved by April 2004. The sample population comprised 157 males and 243 females with a mean age of 44 years (range 23-63). On average they have been in their current

role for nearly ten years, and 61 per cent have taught for more than 16 years (range 1 to 26 years). Forty-seven percent were classroom teachers (N=185), 44 per cent middle managers (N=175) that is, in charge of/or having responsibility for their own subject department. The remaining nine per cent were senior managers (N=38), who were either depute-head or head teachers with whole school responsibility. Thirteen different subject departments were represented such as Maths, English and Physical Education. Almost 61 per cent of teachers worked alongside colleagues in departments with between four and eight staff while 50 per cent taught in schools with 751-1000 pupils. During their career, just over 71 per cent of teachers had taught in one to three schools, 25 per cent in four to ten schools, and almost three per cent in more than ten schools. Nine percent of participants were in 'acting positions' that is temporarily filling a post. The sample population was representative of the range of subjects taught within the secondary context, the age/gender profile of Scottish teachers (Hall, et al., 2000), and sampled denominational, non-denominational, urban, rural and city state comprehensive schools.

4.2.2 THE SURVEY INSTRUMENT

The questionnaire used in this study incorporated several existing questionnaires. An additional section was developed which addressed the specific issue of perception of stress in teaching within the Scottish context. To develop this section of the questionnaire a pilot study was conducted in which a sample of teachers were asked to list 'aspects of their everyday professional context which might be considered to cause teachers stress. Thirty teachers from Scottish Secondary Schools (N=15) across the central belt of Scotland were invited to participate in the pilot study in January 2004. Questionnaires were delivered and collected by the researcher personally to ensure a good response. At this stage the research purpose was explained and participants were assured that the study was anonymous and the identity of individuals and/or schools would not be disclosed at any point. The number of 'stressors' reported by teachers ranged from three to thirteen. In total respondents highlighted seventy two stressors. These were subjected to a content

analysis (Rudestam & Newton, 2001) and reduced to sixty four items. To ensure that the final instrument fully embraced teachers' perception of stress in teaching, participants in this pilot study, were given the opportunity to read and comment on the extent to which their views were represented. No modifications were required therefore the final 64 items were compiled in no particular order, to form the Stress in Teaching Scale (SITS) utilised in this study.

The questionnaire comprised three sections. Section 1 contained ten questions designed to gather demographic and biographical data such as gender, age and current role. Teacher stress and perception of workload had previously been explored within the Scottish context, in relation to these variables (Hall, et al., 2000). One additional question was included in Section 1 of the questionnaire, to specifically explore teachers' general perception of stress in teaching. Question 11 asked participants to rate on a four-point scale (0 = 'not at all stressful', 3= 'very stressful) the extent to which they generally perceived teaching as 'stressful'. Responses to this question provided a general measure of perception of stress (GPS) in teaching.

In Section 2, the Stress in Teaching Scale (SITS) was included to measure teachers' perception of stress in teaching, specific to their everyday professional context. (See App. 4). Participants were invited to rate on a four-point scale (0='not at all'; 3= 'very much so') the extent to which each of the 64 SITS-items such as large class size, pupil motivation and curriculum changes stressed them within their everyday professional context. SITS served to identify the main 'stressors' for this group of teachers and placed perception of stress in teaching within the Scottish context.

Section 3 included the General Health Questionnaire (Goldberg, 1972) and the Glasgow Symptom Checklist (Mahmood, 1999) (See App. 1& 2). Both of these validated scales, were used to provide a measure of well being. To gauge well being each scale comprises a range of psychological, physical and behavioural manifestations of stress. As described in Chapter 3, participants were invited to consider their normal levels of well being and

indicate the extent to which they had perceived changes in a range of GHQ indices such as 'losing sleep over worry'; 'spent much time chatting with people', 'tiredness'. Four options ('no change;' 'no more than usual'; 'less than usual'; 'much less than usual') were presented and participants selected which most accurately reflected their well being in recent weeks. Participants were also invited to rate, on a scale containing four options, ('very much so'; 'quite a lot'; 'slightly'; 'not at all') the extent to which a range of GSC psychosomatic and physical symptoms such as 'feel helpless'; 'unable to relax;' 'tiredness' and 'boredom' bothered them in recent weeks. Total scores for the 30 GHQ and the 44 GSC items were computed to provide two summary measures of well being. The GSC is normally sub-divided into the following sub-scales: Factor 1: Personal Ineffectiveness ;F2: Depression; F3: Tension F4: Anxiety; F5: Loss of Control ; F6: Social Avoidance and F7: Somatic Problems. The GHQ-30 and GSC were included firstly, to explore the relationship between perception of stress in teaching and well being and secondly, as explained in Chapter 3, to provide a means of comparing teacher well being within this Scottish context to that of a general (GHQ-30) and Scottish clinical population (GSC).

4.2.3 PROCEDURE

The questionnaire was piloted on the same 30 teachers involved in the initial development of SITS. In response to this pilot study, minor adaptations to the wording of a number of questions were made to ensure questions were not ambiguous. This group completed the questionnaire in week one and then again in week two. As a final preliminary check on the survey instrument, participants' responses in week one were then compared with their responses in week two. The results from this pilot study showed that the test-retest reliability for each sub-section of the instrument as measured by Pearson's r , were as follows: GPS ($r = .7$); SITS ($r = .8$), GHQ30($r = .8$) and GSC($r = .7$). These findings demonstrated that the final version of the survey displayed appropriate levels of reliability. A final version of the questionnaire was

compiled and six hundred copies were printed. The following steps were taken to ensure a high response rate. Once ethical clearance and the head teachers' approval had been gained, the researcher liaised with each school and identified a contact person, willing to oversee the delivery and return of questionnaires. The purpose of the research was explained fully to each contact person during an initial meeting with the researcher. Once the contact person confirmed the number of teachers in their respective schools survey packs were collated accordingly. These packs comprised sealed envelopes containing a cover letter explaining the purpose of the research and details for the completion and return of the questionnaires. These were delivered by hand to each contact person who then distributed them to the mail trays of all teachers in their school. Participants were given a two-week time scale to complete questionnaires and a date on which these would be uplifted. Each contact person sent an official reminder of the collection date by email or via the staff bulletin. Sealed questionnaires were returned to the contact person and then uplifted by the researcher. At this point the contact person in each school was debriefed and offered access to anonymous versions of the research findings on completion of the study.

4.2.4 VARIABLES DERIVED FROM THE SURVEY INSTRUMENT

Questions one to question ten provided the independent variables in the study, which were gender, age; current role, years in current role; subject taught; size of school; size of department, percentage time of active teaching per week; number of schools taught in, years of teaching experience and acting post. Question 11 provided a measure of general perception of stress (GPS) and served as a dependent variable. The total scores for the Stress in Teaching Scale (SITS), General Health Questionnaire (GHQ-30) and Glasgow Symptom Checklist (GSC) formed the other three dependent variables. In effect GPS and SITS served as measures of perceived stress in teaching while the GHQ-30 and the GSC were utilised to measure perception of well being during the time of this study.

4.3. RESULTS

4.3.0 INTRODUCTION

The results section is structured in accordance with the survey instrument design. The first section outlines results for the General Perception of Stress (GPS) dependent variable. These results are presented in terms of overall findings and then broken down by the independent variables. The second section adopts the same format in presenting the findings relevant to the Stress in Teaching Scale (SITS) dependent variable. The third section presents the findings for both the General Health Questionnaire (GHQ) and the Glasgow Symptom Checklist (GSC).

4.3.1. GENERAL PERCEPTION OF STRESS OVERALL FINDINGS

In section one of the questionnaire, there was in addition to the ten demographic variables, one measure that served to provide a snapshot of participants' general perception of stress (GPS) in teaching. Initial descriptive analysis indicated that 92 per cent of participants perceived teaching as 'quite' to 'very' stressful. Figure 4.0 provides an overview of the distribution of scores within the 'general perception of stress' variable. This figure suggests that the majority of participants generally perceived teaching as very stressful.

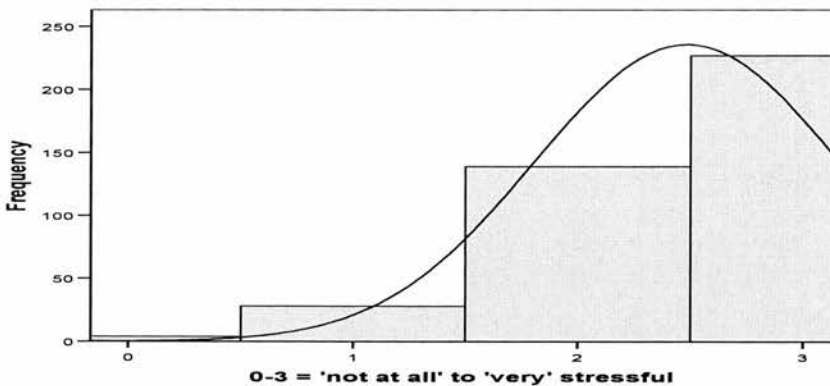


Fig 4.0. Distribution of General Perception of Stress Scores (N=399)

As the data generated were ordinal in nature (0= 'not at all stressful'; 3 = 'very stressful') a chi goodness-of-fit test (Seigel & Castellan, 1988) was applied to explore responses in more detail. This test verified that there were significant differences ($\chi^2 (3) = 323.300, p < .001$) in the overall patterns of responses within the 'general perception of stress' variable. However, a chi-squared test does not highlight if observed frequencies in any specific cell such as 0 = 'not at all stressful' is significantly different from the expected frequencies (Kinnear & Gray, 2000).

To explore the significance of the data it is standard practice to calculate the difference between 'observed' and 'expected' counts in each of the levels of the dependent variable. The expected score is computed on the basis of the number of levels in the dependent variable. As there were four levels within the general perception of stress (GPS) variable it would be expected that out of the whole sample 25 per cent would fall within each of the levels. Therefore a residual score was computed for each of the GPS levels by calculating the difference between expected and observed counts. This difference can be positive or negative. To test for significant differences between observed and expected score the following calculation is used to provide an adjusted standardized residual (ASR) score: $\chi^2 = \text{Sum } (O-E)/E^2$. As a rule of thumb, adjusted standardized residuals with an absolute value of 2 or more indicate significant differences from the expected scores. Table 4.0 provides a summary of the observed (column 2) and expected (column 3) counts across levels of the GPS variables. In addition the 'residual' (column 4) and the ASR score (column 5) score is provided

Table 4.0 Comparison of observed and expected counts (with residuals) across level of the 'general perception of stress' (GPS) variable. (N=399)

<i>GPS LEVELS</i>	<i>Observed</i>	<i>Expected</i>	<i>Residuals</i>	<i>Adjusted Standardised Residuals (ASR)</i>
0 = 'not at all stressful'	1	25	-24.0	-4.8
1= 'slightly stressful '	32.0	25	7.0	1.4
2= 'quite stressful '	34.8	25	9.8	1.6
3= 'very stressful;'	37.0*	25	12.0	2.5

The range of 'adjusted standardised residuals' (ASR) reported in column four indicate that observed scores across all levels of the 'general perception of stress' variable differ from the expected score of '25'. However significant differences are apparent in relation to level 0 = 'not at all' stressful (ASR -4.8) and level 3 = 'very' stressful (ASR 2.5). What these data demonstrate is that a significantly greater proportion of participants perceive teaching as 'very stressful' while far fewer participants than expected perceive teaching as 'not at all' stressful.

4.3.2 DIFFERENCES IN GENERAL PERCEPTION OF STRESS

In addition to examining the sample's overall responses as measured by the general perception of stress variable it is also possible to compare these responses across the different levels of each of the ten demographic variables included in the study. In order to make these comparisons a range of chi-square tests were performed. As this involved ten independent variables it was appropriate to apply an adjusted alpha level. Normally the alpha level is set at $p \leq .05$. However when multiple tests are conducted to explore significance the possibility of discovering a significant finding purely attributed to chance increases considerably. Within research this issue of Type I error is addressed by setting a more stringent alpha level (Pallant, 2005), which is known as the Bonferroni adjustment (Tabachnick & Fidell, 2001, p.50). This is achieved by dividing the standard alpha of $p \leq .05$ by the number of independent variables. As there was ten independent variables in this study a corrected alpha of $p \leq .005$, was applied.

No significant associations were observed in respect of gender ($p \leq .465$); size of school ($p = < .942$), acting post ($p = < .910$); percentage time actively teaching ($p \leq .617$); teaching department ($p = < .852$); size of teaching department ($p = < .237$) and number of schools taught in ($p \leq .068$). However, three of the demographic variables produced significant results.

First, the age of participants had a significant influence on general perception of teaching as stressful ($\chi^2 (df=3) = 102.038 p < .001$). Table 4.1 provides a summary of observed and expected counts for each level of the general perception of stress variable according to age group. ASR scores are also provided (Row 4 of GPS Levels). As explained earlier adjusted standardised residuals of two or greater are recognized as indicative of significant differences between observed and expected score.

Table 4.1 Comparison of observed and expected (ASR) counts across levels (0-3) of the general perception of stress variable by 'age'

		Age				Total
		20-29	30-39	40-49	50-65	
0= 'not at all' stressful	Count	1	1	1	1	4
	Expected Count	.5	.6	1.5	1.5	4.0
	% of Total	.3%	.3%	.3%	.3%	1.0%
	Adjusted Residual	.8	.7	-.5	-.5	
1= 'slightly' stressful	Count	18	4	2	4	28
	Expected Count	3.4	3.9	10.4	10.3	28.0
	% of Total	4.5%	1.0%	.5%	1.0%	7.0%
	Adjusted Residual	8.7	.1	-3.4	-2.6	
2= 'quite' stressful	Count	22	25	54	38	139
	Expected Count	17.1	19.2	51.7	51.0	139.0
	% of Total	5.5%	6.3%	13.6%	9.5%	34.9%
	Adjusted Residual	1.6	1.8	.5	-2.8	
3= 'very' stressful	Count	8	25	91	103	227
	Expected Count	27.9	31.4	84.4	83.3	227.0
	% of Total	2.0%	6.3%	22.9%	25.9%	57.0%
	Adjusted Residual	-6.1	-1.9	1.4	4.1	
Total	Count	49	55	148	146	398
	Expected Count	49.0	55.0	148.0	146.0	398.0
	% of Total	12.3%	13.8%	37.2%	36.7%	100.0%

N=398 (Missing = 2)

Table 4.1 clearly highlights that a significantly greater proportion of participants aged 50-65 (ASR= 4.1) generally perceived teaching as 'very stressful'. In contrast a significantly lower proportion of participants aged 20 to 29 (ASR= -6.1) perceived teaching as 'very stressful' than expected. Overall participants' general perception of stress in teaching was as expected within the 30-39 age group.

Nevertheless, it is clear that participants aged 50 and more generally perceived teaching as ‘very stressful’ whereas participants aged 20 to 29 generally perceived teaching as only ‘slightly stressful (ASR=8.7).

Secondly, years of teaching experience had a significant (χ^2 (df= 3) = 83.148 $p \leq .001$) influence on general perception of teaching as stressful. Table 4.2 provides a summary of observed and expected counts for each level of the general perception of stress variable according to years of teaching experience. ASR scores are highlighted in bold (Row 4 in each GPS level).

Table 4.2 Comparison of observed and expected scores (ASR) across levels (0-3) of the general perception of stress variable by ‘years of teaching experience’

		Years of Teaching Experience				Total
		<5	5-15	16-25	>25	
0= 'not at all' stressful	Count	1	0	1	1	3
	Expected Count	.4	.6	1.0	1.0	3.0
	% of Total	.3%	.0%	.3%	.3%	.8%
	Adjusted Residual	.9	-.9	.0	.0	
1= 'slightly' stressful	Count	17	7	0	4	28
	Expected Count	4.1	5.5	9.3	9.1	28.0
	% of Total	4.3%	1.8%	.0%	1.0%	7.1%
	Adjusted Residual	7.1	.8	-3.9	-2.1	
2= 'quite' stressful	Count	25	35	46	32	138
	Expected Count	20.3	27.0	45.9	44.8	138.0
	% of Total	6.3%	8.9%	11.7%	8.1%	35.0%
	Adjusted Residual	1.4	2.1	.0	-2.9	
3= 'very' stressful	Count	15	35	84	91	225
	Expected Count	33.1	44.0	74.8	73.1	225.0
	% of Total	3.8%	8.9%	21.3%	23.1%	57.1%
	Adjusted Residual	-5.2	-2.3	2.0	3.9	
Total	Count	58	77	131	128	394
	Expected Count	58.0	77.0	131.0	128.0	394.0
	% of Total	14.7%	19.5%	33.2%	32.5%	100.0%

N=394 (Missing = 6)

A significantly smaller proportion of participants with 1 to 5 (ASR= -5.2) and 5-15 (ASR= -2.5) Years of Teaching Experience than expected generally perceived teaching as ‘very’ stressful. In contrast a significant greater proportion of participants than expected within the other three levels of YTE perceived teaching as ‘very stressful’. This was especially marked in relation to participants with 25 and more years of teaching experience (ASR= 3.9). In effect participants with 1 to 5 years of teaching experience do

not perceive teaching as stressful whereas a significantly greater proportion of participants with 16 years of teaching experience and more generally perceive teaching as ‘very’ stressful.

Thirdly, current role had a significant (χ^2 (dfs) = 27.054 p = .008) influence on general perception of teaching as stressful. Table 4.3 provides a summary of observed and expected counts for each level of the general perception of stress variable according to years of teaching experience. ASR scores are considered significant at 2.0 and over.

Table 4.3 Comparison of observed and expected scores (ASR) across levels (0-3) of the general perception of stress variable by ‘Current Role’

		Current Role			Total
		Class Teacher	Middle Manager	Senior Manager	
0= 'not at all' stressful	Count	3	1	0	4
	Expected Count	1.9	1.8	.4	4.0
	% of Total	.8%	.3%	.0%	1.0%
	Adjusted Residual	1.2	-.8	-.7	
1= 'slightly' stressful	Count	16	7	5	28
	Expected Count	13.0	12.3	2.7	28.0
	% of Total	4.0%	1.8%	1.3%	7.0%
	Adjusted Residual	1.2	-2.1	1.5	
2= 'quite' stressful	Count	72	51	16	139
	Expected Count	64.4	61.0	13.6	139.0
	% of Total	18.0%	12.8%	4.0%	34.8%
	Adjusted Residual	1.6	-2.1	.9	
3= 'very' stressful	Count	94	116	18	228
	Expected Count	105.7	100.0	22.3	228.0
	% of Total	23.6%	29.1%	4.5%	57.1%
	Adjusted Residual	-2.4	3.3	-1.5	
Total	Count	185	175	39	399
	Expected Count	185.0	175.0	39.0	399.0
	% of Total	46.4%	43.9%	9.8%	100.0%

N= 399 (Missing = 1)

ASR scores indicate senior managers general perception of stress in teaching was as expected within all four levels of this variable. However, a significantly smaller proportion of class teachers (ASR -2.4) than expected, perceived teaching as ‘very’ stressful. In contrast, a significantly greater proportion of middle managers than expected perceived teaching as ‘very’ stressful (ASR= 3.3).

4.3.3 STRESS IN TEACHING SCALE (SITS)

The purpose of this phase of the analysis was to further explore the significant findings revealed by the study of the general perception of stress measure (GPS). In the preceding section, it was shown that, overall, teachers reported relatively high levels of stress. However, while the GPS measure provided a snapshot of participants' perception of stress in teaching, it does not provide an answer to why participants reported such levels of stress. The Stress in Teaching Scale discussed in this section provides a means of addressing this question. By exploring participants' perception of stress within their everyday professional circumstances it is possible to gain a more in-depth understanding of the findings generated by the general perception of stress measure.

As is demonstrated below, the Stress in Teaching Scale comprises four factors. The first aim of this section is, therefore, to explore overall perceptions of stress in terms of these four SITS factors. The preceding section showed that when the General Perception of Stress result was further examined in terms of demographic variables, three demographic variables were seen to be associated with significant findings: Age, Years of Teaching Experience and Current Role. Accordingly, this section has, as its second aim, an exploration of the extent to which the Age, Years of Teaching Experience and Current Role demographic variables, have an impact on perceived stress as it relates to the four SITS factors. This decision to delineate subsequent analysis to these three variables only was further supported by the absence of significant differences in SITS Factors scores, within each of the other seven independent variables included in the study.

Preliminary Data Reduction via Factor Analysis

In Section 2 of the questionnaire the Stress in Teaching Scale (SITS) comprising 64 items were utilised to measure participants' perception of stress within their everyday professional context. A preliminary check of scale reliability indicated that the 64 SITS-items did represent a single scale ($\alpha = .937$). However, as this study comprised 400 participants who responded to the 64 SITS items, it was appropriate to reduce the data. In

order to derive composite scores from the 64 items a Principal Components Analysis (PCA) with oblimin rotation was performed. This form of rotation was used as it accepts medium to strong correlations that were evident between SITS Factors (Pallant, 2005). The item level of acceptability was set at 0.4. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above (Kaiser-Meyer-Olkin value = .934) and the Bartlett's test of Sphericity (Bartlett, 1954) supported the factorability of the correlation matrix. Cattell's Scree test (1966) highlighted four components, with all variables recording an eigenvalue of one and above, and loading substantially on only one component. Table 4.4 provides a summary of items loading on each of the four SITS Factors. One item (classroom assistants) was removed as this did not load significantly on any of the four SITS factors. To provide an overview of the precise nature of each factor only items with a loading of '.6' and above', are included. An overview of the number and type of items contributing to each of the SITS factors is outlined below, and the main stressors for the group according to highest mean are identified below.

Factor 1: Work Overload - this factor contained 23 items such as 'deadlines' and 'too much paperwork'. The main stressors within this factor were 'too little time'; 'workload' and 'not enough time for development work'.

Factor 2: Professional Ethos -this item contained 19 items such as 'bullying at work' and 'lack of support from colleagues'. The main stressors within this factor were 'lack of support from other staff'; 'view and opinions not respected' and 'lack of co-operation from other colleagues'.

Factor 3: Teaching Learning Interface - this item contained 13 items such as 'erosion of teachers' authority' and 'under achieving pupils'. The main stressors within this factor were 'indiscipline'; 'pupil motivation' and 'low-level indiscipline'.

Factor 4: Perceived Support - this item contained eight items such as 'poor course resources' and 'poor admin resources'. The main stressors within this factor were 'physical school conditions'; 'working environment' and 'poor course resources'.

Table 4.4. Factors of Stress in Teaching (SITS): factor loadings, means, standard deviation (SD) and reliability.

SITS ITEM	Components Identified by PCA with Oblimin Rotation							
	Factor 1: Work Overload (23 items)	Loading	Mean	SD	Explained Variance	Alpha Cronbach		
56	Not enough time for development work	.80	1.98	1.00	14.7	.92		
14	Changing demands	.80	1.88	0.98				
10	Too little time	.77	2.25	0.93				
1	Workload	.75	2.26	0.84				
17	Time spent working at home	.72	1.69	1.09				
63	Curriculum changes	.71	1.76	1.05				
34	Too much paperwork	.71	1.76	1.05				
20	Deadlines	.68	1.77	0.94				
52	Ineffectiveness due to time constraints	.68	1.67	0.99				
42	Lack of time for self-reflection	.68	1.41	1.03				
22	Assessment and marking	.66	1.84	0.99				
27	Balancing additional responsibilities with subject responsibilities	.62	1.39	1.13				
51	Overload of new ideas	.62	1.65	1.06				
	Factor 2: Professional Ethos (19 items)						8.6	.87
40	Lack of promotion opportunities	.60	.64	0.96				
44	Lack of cooperation from colleagues	.68	.84	0.84				
21	Lack of support from other staff	.66	1.01	0.90.				
48	Views and opinions not respected	.68.	.90	0.95				
47	Bullying at work.	.60	.44	0.65				
	Factor 3: Teaching-Learning Interface (13 items)						11.5	.82
59	Low-level indiscipline	-.81	2.17	0.97				
32	Underachieving pupils	-.74	2.07	0.86				
24	Pupil motivation	-.77	2.21	0.86				
19	Indiscipline	-.73	2.39	0.89				
57	Erosion of teachers' authority	-.66	2.00	1.09				
	Factor 4: Perceived Support (8 items)				8.0	.80		
25	Physical school conditions	-.78	1.46	1.13				
28	Working environment	-.72	1.22	1.03				
35	Poor resources (admin)	-.60	1.10	0.97				
26	Poor course resources	-.60	1.16	0.98				

4.3.4 SITS FACTORS: OVERALL RESPONSES

F1: Work Overload

Within F1: Work Overload a score of '0' indicated that all 23 items were deemed 'not at all' stressful while a score of '69' indicated all items were perceived as 'very stressful'. Figure 4.1 provides an overview of the distribution of scores within Factor 1. The normal curve provides an indication of the extent to which scores within this sample are reflective of a hypothetical normal distribution. Scores for F1: Work Overload ranged from 0 to 69.

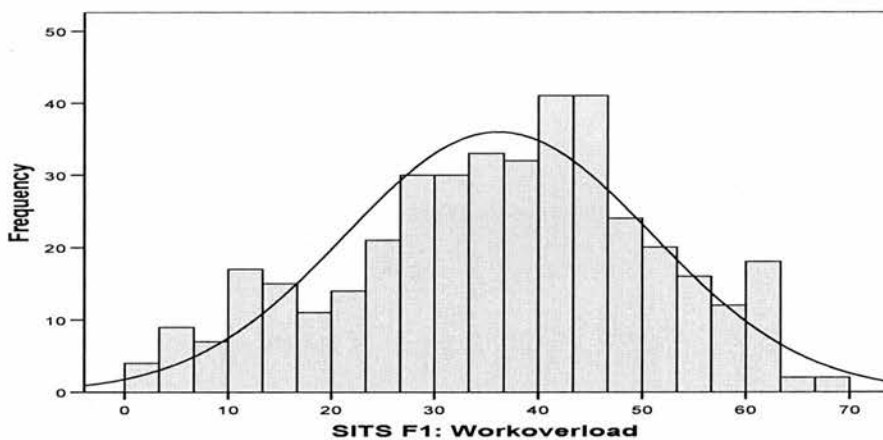


Fig.4.1. Distribution of F1: Work Overload Scores

To assess the extent to which the distribution of F1 Work Overload scores falls within the normal distribution a one-sample *t*-Test was conducted. As this stage of the analysis involved four independent variables a Bonferroni adjusted alpha of $p \leq .012$ was applied. The *t*- Test compares the mean of a sample with a hypothesized population mean. In the present case, the hypothesized population mean was taken to be the mid-point value of the relevant factor. A significant result indicates that the sample mean differs from the hypothesized mean (Corston & Colman, 2004). To set the test value for this procedure the lowest and highest point on the scale is computed and then divided by two to provide a 'midpoint'. In relation to F1: Work Overload the lowest point was '0' and the highest

point '69' therefore the test value was set at 34.5. The group recorded a mean of 36.2(14.8) for F1: Work Overload.

Based on the adjusted alpha of $p \leq .012$ the results of the t -Test ($t = 2.34$ (398), $p < .026$) indicate that participants in this study did not perceive F1: Work Overload as any more or less stressful than would be expected in a normal hypothetical population. However, it should be noted that this would not be the case if the normal alpha level of $p \leq .05$ were applied.

F2: Professional Ethos

Within F2: Professional Ethos. A score of 0' indicated that the 19 items were deemed 'not at all' stressful while a score of '57' indicated all items were perceived as 'very stressful'. Figure 4.2 provides an overview of the distribution of scores within Factor 2: Professional Ethos. Scores ranged from 0-50.

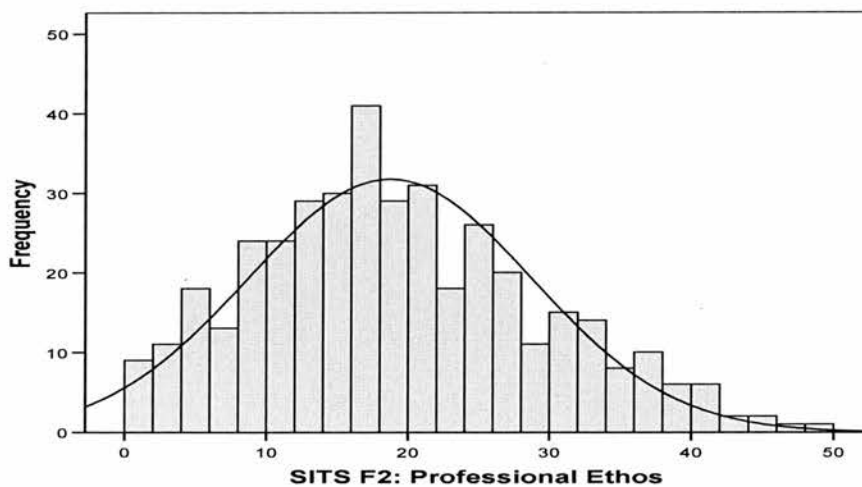


Fig.4.2. Distribution of F2: Professional Ethos Scores

The group recorded a mean of 18.7(10.1) for F2: Professional Ethos. In relation to this factor where the lowest point was '0' and the highest point '57' the test value was set at 28.5. The t -Test highlighted that the distribution of scores within F2: Professional Ethos

did vary significantly from the hypothesized population. The negative but significant *t*-Test result ($t = -19.497(398)$, $p < .001$) indicates that the sample perceived F2: Professional Ethos significantly less stressful than would be expected within a normal population. In effect F2: Professional Ethos was not considered a source of stress.

F3: Teaching Learning Interface

Within F3: Teaching Learning Interface a score of 0' indicted that all 13 items were deemed 'not at all' stressful while a score of '39' indicated all items were perceived as 'very stressful. Figure 4.3 provides an overview of the distribution of scores within Factor 3: Teaching Learning Interface. Scores ranged from 0 to 39.

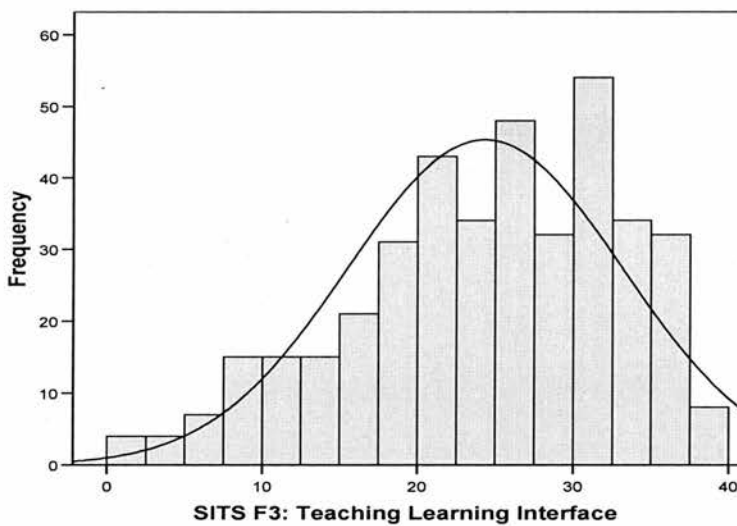


Fig 4.3 Distribution of F3: Teaching and Learning Interface Scores (N=399)

The group recorded a mean of 24.3 (8.8) for F3: Teaching Learning Interface. In relation to Factor 3: Teaching Learning Interface where the lowest point was '0' and the highest point '39' the test value was set at 19.5. The *t*-Test highlighted that the distribution of scores within Factor 3: Teaching Learning Interface varied significantly from the norm in that responses were positively skewed. The results of the *t*-Test ($t = 13.376(398)$, $p < .001$)

indicate that the group perceived F3: Teaching Learning Interface as significantly more stressful than the hypothesized population.

F4: Perceived Support

Within F4: Perceived Support a score of '0' indicated that all eight items were deemed 'not at all' stressful while a score of '24' indicated all items were perceived as 'very stressful'. Figure 4.4 provides an overview of the distribution of scores within F4: Perceived Support. Scores ranged from 0 to 24

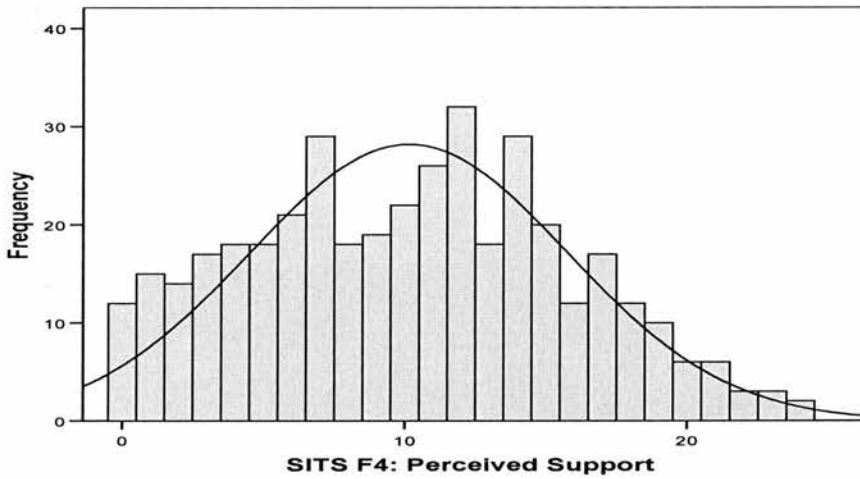


Fig. 4.4 Distribution of Scores within F4: Perceived Support (N=399)

The group recorded a mean of 10.4(6.4) for F4: Perceived Support. In relation to F4: Perceived Support where the lowest point was '0' and the highest point '24' the test value was set at 12.0. The t-test highlighted that the distribution of scores within F4: Perceived Support did vary significantly from the norm. The negative but significant *t*-Test ($t = -6.657(398)$, $p < .001$) result indicates that the group perceived F4: Perceived Support as significantly less stressful, than would be expected within the normal population.

4.3.5 DIFFERENCES IN SITS FACTOR SCORES

Overall SITS responses indicate that participants perceived F3: Teaching- Learning Interface as 'stressful' within their everyday professional environment. While participants perception of F1: Work Overload, did not differ significantly from that of the hypothesized sample it is important to bear in mind that participants' perception of stress associated with this dimension of teaching, almost reached significance at the $p \leq .05$ level. In addition to examining the sample's overall responses as measured by SITS Factors it is also possible to compare these responses across the different levels of each of the ten demographic variables. As SITS Factors are four continuous measures derived from a single scale (SITS) it is acceptable to conduct a multivariate analysis of variance (MANOVA). This statistical technique can be conducted to check that any mean differences in SITS factors in relation to the ten independent variables are not due to chance (Pallant, 2005).

On initial inspection of the MANOVA output it was evident that there were no significant differences in respect to gender; size of school; acting post; size of department, teaching department, percentage of time active teaching per week or number of schools taught in during their teaching career. However, significant differences in SITS factor scores were once again identified in relation to three of the independent variables.

First, there was a statistically significant difference between groups formed by age on the combined SITS variable: $F(3, 399) = 4.807, p = .001$. When the SITS factors were considered separately significant differences were observed in every instance (see Table 4.5).

Table 4.5. One-Way MANOVA Summary Table of SITS Factors scores according to 'age'.

Independent variable	F	P	Eta
F1: Work Overload	15.242	.001	.104
F2: Professional Ethos	3.597	.014	.027
F3: Teaching Learning Interface	10.280	.001	.072
F4: Perceived Support	3.289	.021	.024

N=399 (Missing = 1)

However, it is clear that 'age' had the greatest influence on the extent to which F1: Work Overload (eta = .104) and F3: Teaching Learning Interface (eta = .072) was perceived as stressful. The mean values associated with the four factor scores are shown in Figure 4.5. This figure suggests that level of stress associated with each factor increases in line with age.

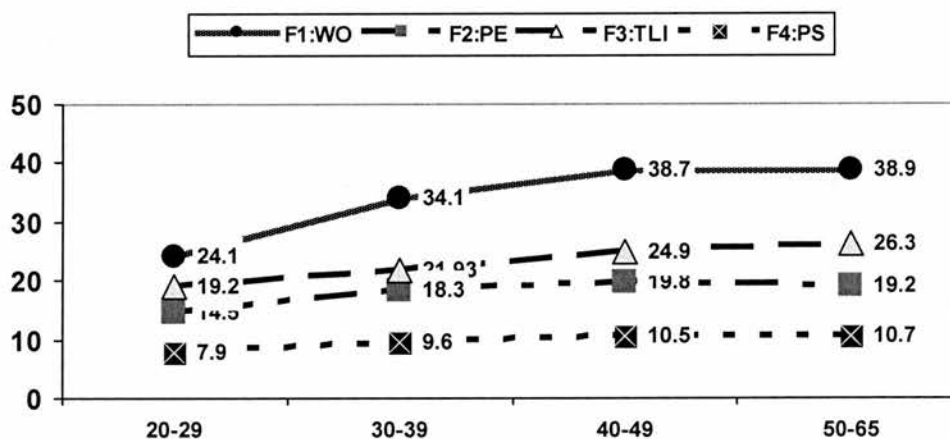


Fig 4.5 Mean SITS Factors scores according to 'age' (N=399)

Post hoc comparisons revealed that participants aged 40-49 and 50-65 perceived F1: Work Overload ($p = .001$); F2: Professional Ethos ($p = .002$) and F3: Teaching Learning Interface ($p = .001$) as significantly more stressful than teachers aged between 20 and 39. While participants aged 50 to 65 perceived F4: Perceived Support as significantly more

stressful than any other group (p range .001 to .002). In effect the youngest age group did not perceive the four dimensions of teaching as stressful while the oldest age group did.

Second, there was a statistically significant difference between groups formed by ‘years of teaching experience’ on the combined SITS variable: $F(3,399) = 5.230, p = .001$. When the factors were considered separately significant differences were observed in every instance.

Table 4.6. One-Way MANOVA Summary Table of SITS Factors scores according to ‘years of teaching experience’.

Independent variable	F	P	Eta
F1: Work Overload	15.487	.001	.107
F2: Professional Ethos	3.538	.015	.027
F3: Teaching Learning Interface	9.836	.001	.071
F4: Perceived Support	5.789	.001	.043

N=399 (Missing =1)

However, ‘years of teaching experience’ had the greatest influence on perception of F1: Work Overload ($\eta = .107$) as stressful. Figure 4.6 provides an overview of SITS Factor scores in relation to years of teaching experience. This figure suggests that participants with 16 + years of teaching experience recorded higher scores than their less experienced colleagues in all instances.

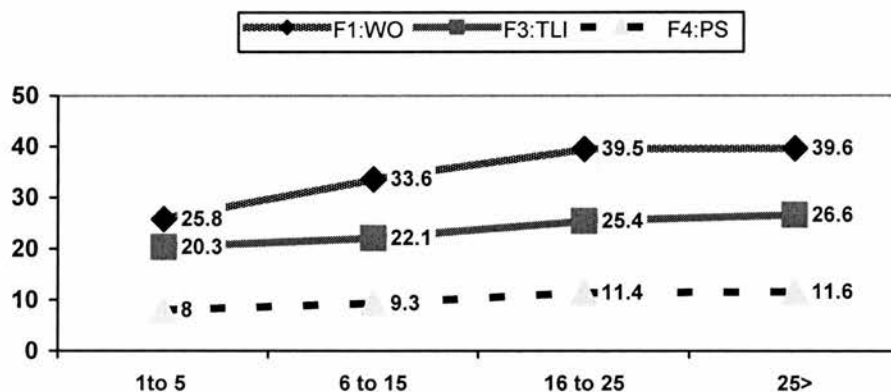


Fig 4.6 Mean SITS Factors scores according to ‘years of teaching experience’ (N=399)

Post hoc comparisons identified that participants with 1-5 years of teaching experience perceived F1: Work Overload as significantly less stressful than those with 6 to 15 ($p \leq .018$); 16 to 25 ($p = .001$) and participants with 25 years and more years of teaching experience ($p = .001$)

Interestingly, participants with 25 years and more of teaching experience recorded a mean F1: Work Overload score, which was almost 14 points higher than those with between 1-5 years of teaching experience. In addition the least experienced participants also perceived F3: Teaching Learning Interface as significantly less stressful than the group.

Participants with 16 to 25 years of teaching experience, who could be considered to be mid-career, and were generally middle managers, perceived F2: Professional Ethos ($p < .013$) and F2: Perceived Support ($p = .002$) as significantly more stressful than colleagues with 1 to 5 years of teaching experience.

Third, there was a statistically significant difference between groups formed by current role on the combined SITS variable: $F(3,399) = 10.283, p = .001$). Significant differences were observed across all factors (see Table 4.7)

Table 4.7. One-Way MANOVA Summary Table for SITS Factors scores according to 'current role'.

Independent variable	F	P	Eta
F1: Work Overload	30.194	.001	.133
F2: Professional Ethos	10.968	.001	.053
F3: Teaching Learning Interface	19.784	.001	.052
F4: Perceived Support	20.201	.001	.093

N=399 (Missing = 1)

Current role had the greatest influence on perception of F1: Work Overload ($\eta = .13$) and perception of F4: Perceived Support ($\eta = .09$). Figure 4.7 provides an overview of mean scores in relation to current role. This figure suggests that class teachers and middle managers recorded higher scores than senior managers in relation to all four SITS factors.

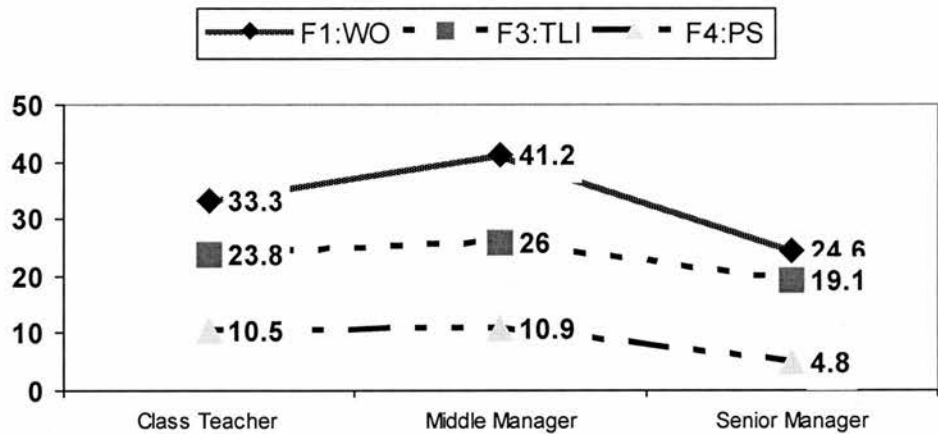


Fig 4.7 Mean SITS Factors scores according to 'Current Role'

Post hoc comparison indicated that middle managers perceived F1: Work Overload as significantly more stressful, than class teachers ($p = .001$) and senior managers ($p = .001$). Interestingly, middle managers recorded a mean F1: Work Overload score, which was almost 14 points higher than senior managers. In addition, middle managers perceived all other dimensions of teaching as significantly more stressful than senior managers.

4.3.6: PERCEPTION OF WELL BEING

The results of the preceding sections reveal that the participants report relatively high levels of stress in teaching, and that these perceived stress levels are particularly associated with three demographic variables: Age, Years of Teaching Experience and Current Role. Previous research suggests that where individuals report high levels of stress, they often also report experiencing a variety of health-related concerns (Millings-Monk & Mahmood, 1999). It is therefore useful to explore the extent to which the participants in this present study report similar levels of concern in relation to health-related issues of this sort. In particular, there are two standard measures, the General Health Questionnaire (GHQ-30) and the Glasgow Symptoms Checklist (GSC), which allow individuals to report on the extent to which they either are currently, or have recently, experienced changes in their normal levels of functioning, that is their well being. In the present study all participants completed both questionnaires. The aim of this

section is to explore the extent to which information gathered from the GHQ-30 and from the GSC can shed further light on the results presented in preceding sections. (One important caveat here is that the findings associated with the GHQ and GSC instruments reported here must be treated with caution as this research did not explicitly consider the personal-professional interface of the teachers involved in this study).

Preliminary Correlational Analyses

As a preliminary step, scores derived from SITS were compared to responses for the General Health Questionnaire-30 (GHQ) and the Glasgow Symptom Checklist (GSC). A relatively high level of correlation among SITS, GHQ-30 and GSC would be expected if it is indeed the case that the levels of stress represented by SITS scores are associated with scores which represent varying levels of health concerns associated with well being, as measured by GHQ-30 and GSC. SPSSv14 was used to compute total mean scores for SITS, GHQ-30 and GSC. To explore the relationship between SITS and the other two measures, Pearson's product-moment correlations were calculated. Table 4.8 provides a summary of the correlations observed between the three measures.

Table 4.8 Correlation Matrix and Descriptive Statistics for Stress in Teaching Scale (SITS) Factors, General Health Questionnaire (GHQ-30) and Glasgow Symptom Checklist (GSC)

SITS FACTORS	GHQ-30	GSC
F1: Work Overload	.55**	.54**
F2: Professional Ethos	.53**	.51**
F3: Teaching Learning Interface	.38**	.50**
F4: Perceived Support	.33**	.35**

N=399 (Missing – 1) ** all significant at $p \leq .01$ level

The results indicated medium to strong positive correlations, at the $p \leq .01$ level amongst all measures. What this shows is that there is initial evidence to suggest that level of reported stress in teaching is associated with perception of well being. In addition, what these data demonstrate is that the SITS measure incorporated in Section 2 of the questionnaire displayed acceptable levels of concurrent validity. Having established that

there does indeed appear to be a link between level of stress and perceived well being, this section now goes on to present analyses which are analogous to those outlined in the preceding two sections. First, GHQ-30 and GSC scores for the sample population as a whole are examined. In addition, participants' perception of well being is placed alongside that of a general (GHQ-30) and clinical (GSC) population. Following this, the relative impact of the three demographic variables (Age, Years of Teaching Experience and Current Role) on perception of well being is explored.

4.3.7 GHQ-30 and GSC OVERALL FINDINGS

Thirty GHQ items such as 'found everything getting on top of you' and 44 GSC items such as 'having recurring thoughts' were rated by participants according to changes from their 'norm' in recent weeks. This introduced a degree of objectivity as the researcher gives ownership to the participant in terms of inviting them to delineate their 'norm' and then comment on variations from this. A descriptive analysis of GHQ-30 and GSC responses was conducted and 'items' in which participants had experienced significant changes to their norm were identified. While it is customary to present the findings from the GHQ-30 and GSC scales separately (Millings-Monk & Mahmood, 1999) a slightly different approach was taken in this research. Participants' perceptions of changes to their norm were considered holistically as responses were representative of how they were feeling 'generally' in recent weeks. Table 4.9 lists the five main problems experienced by participants in recent weeks. Problems are ranked according to percentage of participants perceiving these as 'rather' to 'very much more' worse during this time.

Seventy-seven per cent of the group reported they were 'much' to 'very much more tired' than normal and almost 60 per cent of participants 'felt under constant strain'. Overall, more than half of participants had become increasingly overwhelmed and were also less able to socialise or engage in activities not associated with teaching. It is of concern that

three per cent of participants also felt they were ‘managing less well’ than most people in their circumstances’ and had felt ‘life was not worth living’ in recent weeks.

Table 4.9 Main problems experienced in rank order according to proportion (f/%) of participants reporting each as ‘much’ to ‘very much worse’ (GHQ) than their norm in recent weeks

Five main problems (GHQ-30 / GSC)experienced by participants	Proportion (f/%)	
	f	%
GSC-14: Tiredness	314	77.2
GHQ-14: Felt constantly under strain	241	59.4
GHQ-21: Found everything getting on top of you	218	53.5
GHQ-11: Spent much time chatting with people	215	52.9
GHQ-37: Been able to enjoy everyday activities	215	52.9

N=399 (Missing=1)

4.3.8 PERCEIVED WELL BEING: A COMPARISON TO GENERAL (GHQ-30) AND CLINICAL POPULATIONS (GSC)

To place teacher perception of well being in context their GHQ ‘case’ scores (Goldberg & Williams, 1988) and GSC Factor scores (Mahmood, 1999) were compared to that of the general and clinical population respectively. It was anticipated that participants’ perception of changes in normal levels of functioning would be reflective of those reported in the general (GHQ) rather than the clinical population (GSC).

General Health Questionnaire-30

First, total GHQ-case score were used to compare teacher responses to that of the general population. Generally a case score of ‘5’ is used to indicate what is referred to as ‘caseness’. This ‘label’ implies that the changes in normal level of functioning would warrant therapeutic intervention (Goldberg & Williams, 1988). One limitation of setting a ‘case’ score at ‘5’ is that there are 30 possible instances (GHQ-items) where a score of ‘1’ can be assigned to a response. This means that participants only require to rate five different GHQ items as causing ‘much’ to ‘very much’ more problems than usual to merit

a 'case' score (Millings-Monk & Mahmood, 1999). Within this study, participants recorded a GHQ mean score of 9.8(8.3) and scores ranged from 0-30. On this basis all participants would be labeled as 'cases'. Cut off scores of '5', '10' and '20' were examined to ensure that the limitations of this method of identifying 'cases' were acknowledged. Figure 4.6 provides a summary of the comparison between teachers in this study and the general population surveyed by Cox, Blaxter, Buckle, Fenner, Golding, Gore, Huppert, Nickson, Roth, Stark, Wadsworth & Wichelow (1987). This figure suggests that secondary school teachers within this study experienced greater health concerns.

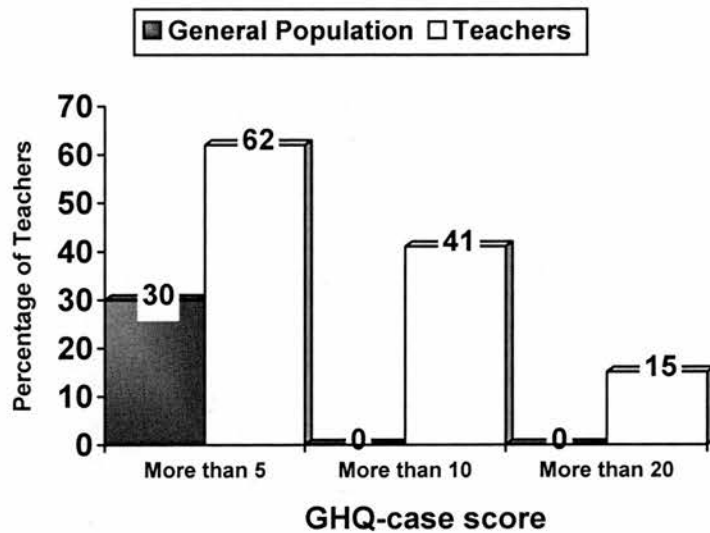


Fig 4.8. Distribution of GHQ 'case' scores within the teacher (N= 399) and general population (N=6498).

Within this study 62 per cent of participants recorded GHQ-scores indicative of 'caseness' (>5). When a more rigorous cut off score of '10' was applied this fell to 56 per cent. In contrast, only one-third of the general population (N= 6498) scored above five while no one scored in excess of ten (Cox et al, 1987). It is of some concern that fifteen per cent of teachers within this Scottish context (N= 61) scored in excess of '20' which indicates twenty different health concerns had bothered them much more in recent weeks.

Glasgow Symptom Checklist

Secondly, GSC-Factor scores were compared to a clinical population (CP) drawn from a Scottish context. In the first instance participants mean scores for each of the seven GSC factors were placed alongside the norms (Mean \pm 1SD) of the clinical population (Mahmood, 1999). Table 4.11 provides details of this comparison as well as examples of the type of item associated with each of the seven factors. Forty-five per cent of participants reported a similar decline in problems such as ‘tiredness’ pertaining to F1: Personal Ineffectiveness as the clinical population (Mahmood, 1999). Overall between 24 and 33 per cent of participants experienced similar problems to the clinical population in relation to all of the other GSC Factors.

Table 4.11. Proportion of participants recording Glasgow Symptom Checklist (GSC) Factor scores similar to the Clinical Population (CP) Norms (Mean \pm 1SD)

GSC Factor	Example of GSC Item	CP Norms	Mean Score (Teachers)	% Teachers within CP Norms
F1: Personal Ineffectiveness	Tiredness	11-27	12.9	45.1
F2: Depression	Recurring thoughts	8-19	6.2	25.3
F3: Tension	Light headed	1-7	1.2	23.5
F4: Anxiety	Feeling tense	6-13	4.2	27.2
F6: Social Avoidance	Avoiding people	4-13	1.6	31.8
F7: Loss of Control	Need drink or drugs	2-7	3.0	32.1
F7: Somatic Problems	Feeling sick	2-6	1.6	32.6

N=399

4.3.9. DIFFERENCES IN PERCEIVED WELL BEING

General Health Questionnaire

In addition to exploring GHQ-30 overall responses it was also possible to explore responses in relation to demographic variables in which differences in ‘general perception of stress’ and SITS factors scores had been identified. As GHQ-30 mean scores were continuous and the three independent variables were categorical ‘caseness’ it was appropriate to conduct a series of one-way analysis of variance tests. Table 4.10 presents the findings from the ANOVA-tests. When a Bonferroni adjusted alpha of $p \leq .018$ was

applied significant differences in mean GHQ scores were identified in relation to ‘current role’ only.

Table 4.10 Analysis of Variance Summary table for GHQ-30 responses according to ‘Age’;

Dependent variable	F	p	Eta
Age	1.794	.499	.014
Years of Teaching Experience	3.031	.031	.053
Current Role	6.608	.002	.074

N=399 (Missing =1)

Post-hoc comparisons indicated that middle managers recorded a significantly higher GHQ-30 case score than both class teachers ($p = .008$) and senior managers ($p = .001$). With a GHQ-30 mean score of 12.14 (SD3.8) middle managers, as a group of teachers, would be labeled as ‘cases’ in accordance with the more rigorous cut off score of ‘10’ used within this study.

Glasgow Symptom Checklist

In addition to examining the sample’s overall responses as measured by GSC factors this stage of the analysis compared these responses within groups formed by ‘age’; ‘years of teaching experience’ and ‘current role’. As the dependent variables comprise seven continuous measures and the independent variables are ‘categorical’ it was acceptable to conduct a series of one-way multiple analysis of variance tests (Tabachnik & Fidell, 2001). In light of the fact that a series of multiple analyses were conducted a Bonferroni adjustment was not required.

First participants’ age had an influence on the extent to which they experienced changes in their norm in relation to the GSC. Statistically significant differences were observed between groups formed by age in the combined GSC variable $F(4, 399) = 1.748$; $p = .001$). However when GSC factors were considered separately only F1: Personal Ineffectiveness ($F = 4.887$, $p = .001$) and F4: Anxiety ($F = 3.676$, $p = .006$) reached

statistical significance. The effect size, calculated using eta squared confirmed that 'age' had a moderate effect on F1: Personal Ineffectiveness (PIE) and a 'small' effect on F4: Anxiety (ANX).

Figure 4.9 provides an overview of mean F1: Personal Ineffectiveness and F4: Anxiety scores in relation to 'age'. This figure suggests that participants aged 20 to 29 reported less problems pertaining to F1: Personal Ineffectiveness and F4: Anxiety than their older colleagues. In addition, scores in each factor appear to increase in line with age.

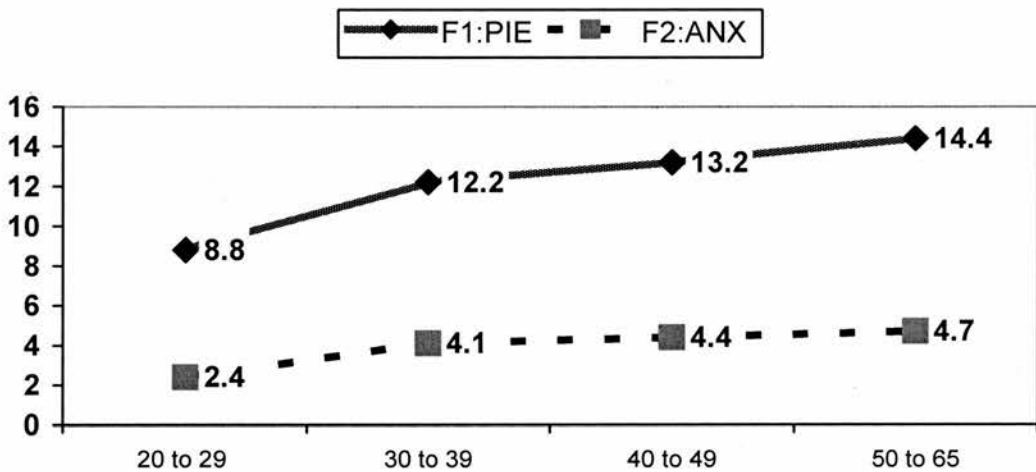


Fig. 4.9. Mean scores for F1: Personal Ineffectiveness (PIE) and F4: Anxiety (ANX) according to age' (n=399)

Post-hoc comparisons indicate that participants aged 20-29 experienced significantly less problems in relation to F1: Personal Ineffectiveness than colleagues aged 40+ ($p = .001$). This was also the case in relation to F4: Anxiety ($p = .004$).

Second, participants' 'years of teaching experience' had an influence on the extent to which they experienced changes in their norm in relation to the GSC. Statistically significant differences were observed between groups formed by 'years of teaching experience' in the combined GSC variable $F(4, 399) = 1.272; p = .013$.

However when the factors were considered separately only F1: Personal Ineffectiveness reached statistical significance ($F = 6.471; p = .007$) although differences in F4: Anxiety

($F= 3.373$, $p= .019$) almost reached significance. Figure 4.10 suggests that participants with 16 and more years of teaching experience experienced more problems in relation to F1: Personal Ineffectiveness (and F4: Anxiety) than their less experienced colleagues.

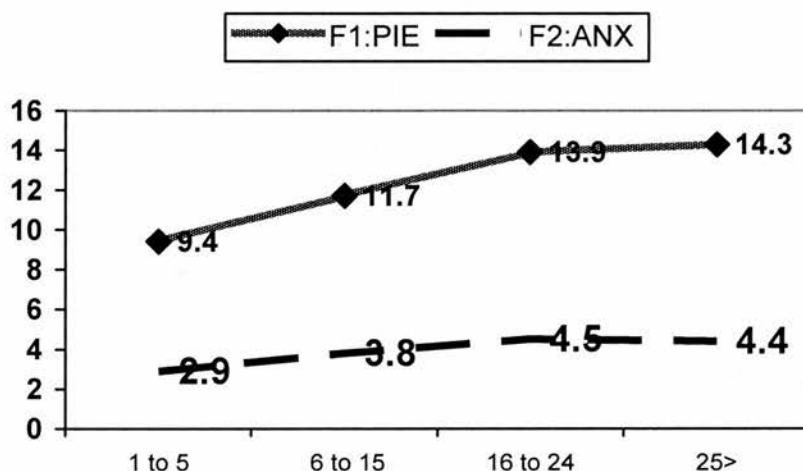


Fig 4.10. Mean GSC F1: Personal Ineffectiveness and F4: Anxiety scores according to Years of Teaching Experience.

Post-hoc comparisons indicated that participants with between 16 and 24 years of teaching experience scored significantly higher relation to F1: Personal Ineffectiveness ($p = <.004$) than those with 1 to 5 years of teaching experience.

Third, participants 'current role' had an influence on the extent to which they experienced changes in their norm. Statistically significant differences were observed between groups formed by 'current role' in the combined GSC variable $F(3, 399) = 2.038$; $p = .004$.

However when factors were considered separately only F1: Personal Ineffectiveness ($F = 8.344$, $p = .001$) and F2: Depression ($F = 4.321$, $p = .005$) reached statistical significance. Figure 4.11 provides an overview of mean scores in relation to current role. This figure suggests that senior managers experienced fewer problems with issues relating to F1: Personal Ineffectiveness and F2: Depression than both class teachers and middle managers.

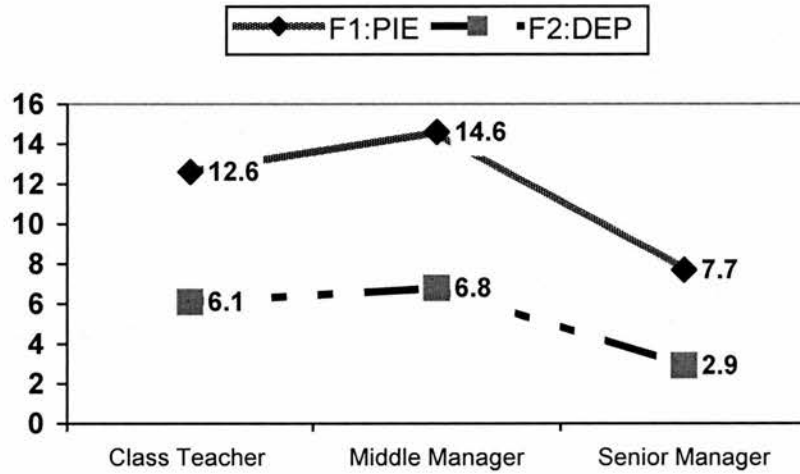


Fig 4.11. Mean GSC F1: Personal Ineffectiveness and F2: Depression Scores according to Current Role.

Post hoc comparisons indicated that middle managers experienced significantly greater problems with F1: Personal Ineffectiveness ($p = .001$) and F2: Depression ($p = .004$) than senior managers. It should be noted that within F1: Personal Ineffectiveness, middle manager recorded a mean score which was almost 14 points higher than that recorded by senior managers

4. 3.10. SITS AS A PREDICTOR OF WELL BEING (GHQ-30 and GSC)

To assess the extent to which SITS factors account for the variance in both GHQ-30 and GSC responses a series of multiple regression analyses were conducted. This technique is conducted to assess how well a series of independent variables are able to predict an outcome such as perception of well being (GHQ-30 and GSC). Based on correlation, MRA explores the interrelationships between one continuous dependent variable and a series of continuous independent variables (Pallant, 2005). Previous analysis had identified correlations $> .3$ between all SITS Factors and both the GHQ-30 and GSC.

Thirty-six ($r = .36$) and 37 per cent ($r = .37$) of the variability in GHQ-30 and GSC scores respectively were explained by a model incorporating all four SITS factors. F1: Work Overload was the main predictor of GHQ-30 ($\beta = .382$) and GSC (.285) scores

respectively (see Figures 4.15a and 4.15b). However, it should be noted that F2: Professional Ethos made a significant contribution to the variation in both GHQ-30 ($p = .001$) and GSC ($p = .001$) scores. In addition, F3: Teaching Learning Interface made a significant contribution to variations in GSC ($p = .001$) scores.

Table 4.15a Results of Multiple Regression Analysis: Coefficients GHQ (case)

Model		Un-standardised Coefficients		Standardised Coefficients		
		B	SE	Beta	T	Sig.
1	(Constant)	-1.577	1.632		-.966	.335
	SITS F1: Work Overload	.211	.052	.382	4.060	.000
	SITS: F2 Professional Ethos	.329	.081	.371	4.068	.000
	SITS F3: Teaching Learning Interface	.266	.090	-.027	-.295	.708
	SITS F4: Perceived Support	-.166	.136	.107	-1.221	.224

GHQ (case)

Table 4.15b Results of Multiple Regression Analysis: Coefficients GSC

Model		Un-standardised Coefficients		Standardised Coefficients		
		B	SE	Beta	T	Sig
1	Constant)	-5.270	2.809		-1.876	.061
	SITS F1: Work Overload	.424	.090	.275	4.686	.000
	SITS: F2 Professional Ethos	.613	.132	.270	4.632	.000
	SITS F3: Teaching Learning Interface	.502	.148	.194	3.402	.001
	SITS F4: Perceived Support	-.266	.215	-.066	-1.240	.216

GSC

The relationship between F1: Work Overload and the GHQ; F2: and Professional Ethos and the GSC, suggests that participants who perceived these dimensions of teaching as stressful also reported a decline in normal levels of well being.

SUMMARY OF QUANTITATIVE FINDINGS

Overall findings suggest that participants generally perceived teaching as 'stressful' and that two specific dimensions of their everyday professional context were perceived as stressful by the group: SITS F3: Teaching Learning Interface and F1: Work Overload. In addition a greater proportion of participants than expected within a 'general population' recorded GHQ-30 scores equated with requiring therapeutic intervention. At the same time 45 per cent of participants were experiencing similar problems to the 'clinical population' in relation to GSC F1: 'Personal Ineffectiveness'. It has also been established that 'age'; 'years of teaching experience' and 'current role' significantly influenced participants' general perception of stress (GPS), perception of stress within their everyday professional circumstances (SITS) and perception of changes in their normal levels of well-being (GHQ-30 and GSC).

4.3.11. UNDERSTANDING DIFFERENCES IN PERCEPTION OF STRESS IN TEACHING

The previous analysis demonstrates that SITS F1: Work Overload, F2: Professional Ethos and F3: Teaching Learning Interface all made a significant contribution to measures of well being (GHQ/GSC). Previous findings also clearly demonstrate that age and years of experience which are indicative of the 'passage of time' and current role significantly impact on the extent to which teaching is generally perceived as stressful. In addition, it was clear that participants aged 50+, those with 16+ years of teaching experience and middle managers specifically all experienced the profession as significantly more stressful than their counterparts. In addition, they recorded GHQ and GSC scores indicative of compromised well being. It should be noted that teachers aged 50 and over and with 16 and more years of teaching experience were by and large also middle managers. To understand these findings, SITS responses pertaining to F1: Work Overload and F3: Teaching Learning Interface were reviewed in more depth for in relation to 'years of teaching experience' and 'current role'. Bearing in mind that F2: Professional Ethos

was also a significant predictor of well being scores it was important to consider these types of stressors as well as those which are associated with F1: Work Overload (WO) and F3: Teaching Learning Interface (TLI) and F2: Professional Ethos (PE). Table 4.17 provides a summary of all items deemed as 'stressful (mean > 2.0) by these specific groups of teachers. Not surprisingly the main stressors are either related to 'work overload' or the 'teaching learning interface'. To explore teachers experiences holistically the main 'stressors' (according to highest mean) pertaining to F4: Perceived Support (PS) are also provided.

In comparison to the group, participants with 16+ years of teaching experience and middle managers perceive additional F1: 'Work Overload' stressors such as 'inclusive education'; 'not enough time for development work'; 'changing demands'; 'curriculum changes' and 'overload of new ideas' as 'stressful' within their everyday professional context. Interestingly middle managers were the only group who perceived 'changing demands' (M2.58 SD3.1) as their main source of stress within F1: Work Overload. In addition they were also the only group to perceive 'inclusive education' as stressful within their everyday professional context. Table 4.17 hints at the accumulative nature of 'stress' in that the number of daily 'stressors' increased in line with years of teaching experience and according to current role. Middle managers reported thirteen items as stressful on a daily basis within their everyday professional context. It is interesting to note that the main sources of stress linked to professional ethos and perceived support were 'low staff morale'; 'stressed out colleagues'; 'management indifference' and 'inefficient line managers'.

Table 4. 17. Main sources of stress according to highest mean (\pm SD) within SITS Factors and in relation to Years of Teaching Experience and Current Role

	N	Main Stressor s (2>)	SITS Factor	Mean (SD)	Additional Stressors rated 'stressful' (>2) by highest mean	Main stressors F2:PE and F4:PS	
Years of Teaching Experience	134	Too much paperwork	F1-WO	2.49(.96)	Pupil motivation, low level indiscipline, not enough time for development work, inclusive education.	Management indifference Physical school conditions Stressed out colleagues Parents attitudes	
		Too little time	F1-WO	2.45(.82)			
		Indiscipline	F3-TLI	2.42(.93)			
		Pupils manners	F3-TLI	2.42(.86)			
		Workload	F1-WO	2.38(.78)			
>25	128	Indiscipline	F3-TLI	2.62(.74)	Pupil motivation, underachieving pupil, erosion of teacher's authority, inclusive education, changing demands, not enough time for development work, overload of new ideas	Stressed out colleagues Physical school conditions Institutional Politics Management Indifference	
		Low-level indiscipline	F3-TLI	2.48(.82)			
		Too much paperwork	F3-TLI	2.43(.75)			
		Workload	F3-TLI	2.43(.70)			
		Too little time	F1-WO	2.39(.83)			
Current Role	11	Indiscipline	F3-TLI	2.32(.92)	Low-level indiscipline, workload, too little time	Low staff morale Teacher blame culture Physical school conditions Stressed out colleagues	
		Too much paperwork	F1-WO	2.20(.92)			
		Pupil Motivation	F3-TLI	2.20(.86)			
		Pupils manners	F3-TLI	2.15(.91)			
		Underachieving pupils	F4-TLI	2.06(.87)			
	Middle Manager		Changing demands	F1-WO	2.58(.71)	Underachieving pupils low-level indiscipline, not enough time for development work, curriculum changes, erosion of teachers' authority, workload, too much paperwork, pupils manners	Low staff morale Stressed out colleagues Management Indifference Inefficient line managers
			Indiscipline	F3-TLI	2.57(.70)		
			Too little time	F1-WO	2.56(.69)		
			Pupil motivation	F3-TLI	2.55(.77)		
			Inclusive education	F1-WO	2.44(.48)		
Senior Manager		Indiscipline	F3-TLI	2.08(1.1)	Nil	Stressed out colleagues Parents attitudes Low staff morale Teacher blame culture.	
		Workload	F1-WO	2.03(.88)			

4.4 DISCUSSION

4.4.0 INTRODUCTION

Teacher stress has been at the centre of a number of litigation cases in the UK and this phenomenon is believed to contribute to growing problems with teacher recruitment and retention (Jarvis, 2003; Wainwright & Calnan, 2002). Interestingly concerns have also been raised regarding the number of teacher retiring early due to ill health within the Scottish context (Dunlop & MacDonald, 2004).

4.4.1 GENERAL PERCEPTION OF STRESS IN TEACHING

Within the context of the study reported in this chapter, findings indicate that secondary school teachers generally perceive their profession as stressful. Moreover, 92 per cent of teachers perceive teaching as 'quite' to 'very' stressful. It is conceivable that these finding may simply be indicative of 'a consensual belief' that the profession of teaching is indeed stressful (Jarvis, 2003). It may even be as a result of the timing of the study coinciding with one of the main stress points in the secondary teachers school year (April, 2004). In any school this is a time that places huge demands on teacher (and pupils) in terms of exam preparation, assessment, moderation and finalisation of exam board submissions.

It has been reported that around one-third of participants within a range of studies (e.g., Borg, 1990; Borg, Riding & Falzion, 1991; Chan, 2002; Kyriacou and Sutcliffe, 1978) rated teaching as 'very' to 'extremely' stressful. In contrast, 53 per cent of teachers within this study perceived teaching as 'very stressful'. This figure is considerably higher than the 44 per cent of teachers who rated the profession as 'extremely stressful' within a study exploring teacher health and well being within the Scottish context (Dunlop & MacDonald, 2004).

The differences in perception of stress in teaching between this study and that of Dunlop & MacDonald may have been influenced by the fact that this study involved secondary teachers exclusively. In contrast, Dunlop and MacDonald (2004) sampled teachers from the

primary, secondary and special education sector. Nonetheless, the fact that one out of every two teachers within this Scottish context perceives teaching as ‘very’ stressful does give cause for concern.

4.4.2. STRESS IN TEACHING

Participants’ perception of stress in teaching was four-dimensional in nature: F1: Work Overload; F2: Professional Ethos; F3: Teaching Learning Interface and F4: Perceived Support. The main source of stress for teachers within these four factors were ‘too little time’; ‘workload’; ‘not enough time for development work’; ‘lack of support from other staff’; ‘views and opinions not respected’; ‘lack of co-operation from other staff’; ‘indiscipline’; ‘pupil motivation’; ‘low-level indiscipline’; ‘physical school conditions’; ‘working conditions’ and ‘poor courses resources’. As a group, teachers did not perceive issues pertaining to F2: Professional Ethos and F4: Perceived Support as stressful. While F1: Work Overload was perceived as quite ‘stressful’ it was clear that F3: Teaching Learning Interface was a significant source of stress for teachers within the context of this study. Moreover, 62 per cent of teachers rated ‘indiscipline’ as very stressful on a daily basis. Overall, the main sources of stress within this group of teachers’ everyday professional environment were related to either workload or the teaching learning interface.

Teacher perception of stress in teaching within this study is largely consistent with research in the field and there appears to be recurring themes such as workload, indiscipline, and time pressures (Cosgrove, 2000, Dunlop & MacDonald, 2004; Johnstone & Munn, 1993, Pithers & Soden, 1998; Kyriacou, 1987; Wilson, 2003). However, a number of important distinctions have to be made. Work Overload (WO) was a source of stress for teachers as opposed to workload. Findings suggest that the interaction between the demands of workload and time available may have created a degree of quantitative overload (Cooper et al., 2001) that contributed to teacher perception of the profession as stressful.

However, the main source of stress for teachers was Factor 3: Teaching-Learning Interface (TLI). This factor comprised a range of issues related to the interaction between teachers and pupils. While 'indiscipline' was certainly the main source of stress a number of other aspects of the teaching learning interface were considered stressful. Teachers also perceived the issues of 'pupil motivation' and 'low-level indiscipline' as stressful. For the teacher, the daily interactions within the TLI can be both stimulating and challenging. For many, this may be the very challenge they thrive on, but for others the challenge may become a demand too far that impacts on their efforts to fulfill their role effectively. It is worth bearing in mind, that for most teachers, who are actively engaged in the teaching-learning process, stressors pertaining to F2: TLI and F1: WO are very much of feature of their everyday professional life.

Nonetheless, concerns regarding the issue of 'indiscipline' and concerns about teacher workload have been around for a very long time (Laughlin, 1984; Munn et al, 2004; Wilson, 2003). Teacher across the world are faced with the demands of managing the workload associated with teaching and the many interactions within their classes. This fine balancing act is played out in schools across the world on a daily basis. These intrinsic aspects of teaching are recognised as sources of stress within the profession. However, Jarvis (2003) would suggest that exposure to these two dimensions of the teachers' everyday professional life alone is not necessarily an antecedent of 'stress'. However, it is recognised that the cumulative demands of both work overload and the teaching-learning interface can, over time, have a negative impact on teacher well being and health (Dunlop & MacDonald, 2004, Johnstone & Munn, 1993; Travers & Cooper, 1996). Within the context of this study, the teaching learning interface in particular and issues pertaining to workload and 'indiscipline' specifically impacted on individual perception of stress in teaching. However, the extent to which teaching was perceived as stressful varied according to age, years of teaching experience and current role. In addition, specific groups of teachers who perceived teaching

as 'very' stressful also reported significant changes in their normal levels of well being. These findings support those of Dunlop & MacDonald (2004) who concluded that secondary school teachers in particular within the Scottish context perceived 'indiscipline' as a significant source of stress. Moreover, Dunlop and MacDonald's study had identified that teachers believed there was a relationship between stress in teaching and their general health.

4.4.3. DIFFERENCES IN PERCEPTION OF STRESS IN TEACHING

Teacher perception of stress in teaching varied according to age, years of teaching experience and current role. Overall, participants who were in the early stages of their career and teachers aged 20-29 did not perceive teaching or any dimension of teaching as stressful. Moreover, this group of teachers perceived teaching in general, and all four dimensions of teaching as significantly less stressful than teachers aged 40 + and teachers with 16 and more years of teaching experience. Findings suggested that with the passage of time teachers were more inclined to report the profession as 'very' stressful. In particular older and more experienced teachers perceived aspects of teaching pertaining to work overload, the teaching learning interface and perceived support as significant sources of stress. In addition, current role had an impact on perception of stress in teaching. Teachers who were currently middle managers perceived teaching as significantly more stressful than senior managers and class teachers.

Participants with more than 16 YTE, aged 50 and over, and middle managers experienced the demands of managing 'indiscipline' and 'change' respectively, as the most stressful aspect of their work. However, it must be pointed out that this groups perception of F1: WO and F2: TLI could in some way be influenced by the fact that they also identify 'low staff morale' and 'management indifference' as sources of stress. In effect the foundation on which they balance workload with the teaching learning interface is slightly 'shaky'.

This may be as a direct consequence of the interaction between all four dimensions of their

precise circumstances in conjunction with the increasing number of 'stressors' they perceived as 'stressful' within their everyday professional context (see Figure 4.20).

4.4.4. RELATIONSHIP BETWEEN PERCEPTION OF STRESS IN TEACHING AND PERCEIVED WELL BEING

Within this study, 46 per cent of participants reported substantial changes in normal levels of well being. Moreover, 77 per cent and 60 per cent of teachers indicated that they were 'very much more tired' and had 'felt under constant strain' in recent weeks. It is of concern that participants perceiving teaching as significantly more stressful had also experienced a decline in normal levels of well being associated with a clinical population. In addition 56 per cent of teachers experienced changes in well being normally associated with warranting therapeutic intervention (Cox et al, 1987). At the time of this study, and as participants balanced the four dimensions of their professional reality, 45 per cent were experiencing the same type of problems pertaining to feelings of 'personal ineffectiveness' as reported by a Scottish clinical out patient population (Mahmood, 1999). These findings are somewhat concerning however it is important to note that there may be other aspects of teachers' lives out with the professional context which impacted on their well being at this time.

Not surprisingly teachers who had reported teaching as significantly stressful also experienced significant changes in well being in the weeks leading up to this study. In particular middle managers experienced significantly more changes in well being than either class teachers or senior managers. As a group they recorded GHQ-30 scores that indicated the need for therapeutic intervention. When teacher experiences of problems linked to a clinical population were explored, it was clear that teachers who were aged 40 and more had been experiencing significantly greater problems in terms of feelings of personal ineffectiveness than teachers aged 20-29. In addition, within the context of this study feelings of personal ineffectiveness and anxiety increased in line with age. Moreover, current role within the profession had a significant impact on well being. Middle managers

experienced a significant change in the extent to which they felt personally effective. This group of teacher who were generally aged 40 and more, had 16+ years of teaching experience and would be deemed mid-career, reported significantly more problems associated with feelings of personal ineffectiveness and depression than senior managers. A significant relationship was observed between perception of teaching as stressful and significant changes in well being within the context of this study. Moreover, aspects of teaching such as workload and the teaching learning interface were confirmed as predictors of well being. This suggested that teachers who experienced each of these aspects of teaching as stressful also experienced significant changes in normal levels of well being. It was interesting to note that for older, more experienced teachers and middle managers, perception of the professional ethos within their everyday teaching environment also had a significant impact on perception of well being. In effect, the interaction between sources of stress associated with the teaching learning interface, workload and professional ethos appeared to explain why specific groups of teachers had reported changes in well being similar to a clinical population, and moreover warranting therapeutic intervention.

Within our schools 'passage of time', which is reflective of the teacher's age and years of teaching experience, should equip teachers with the personal and professional resources to embrace additional management responsibilities, such as those associated with middle and senior management. This experience is a feature of the middle manager and senior manager stage in their professional journey. It would be expected that this level of experience would enable the teacher to meet the demands of the profession with relative ease. In effect, their professional and personal resources would enable them to meet the intrinsic demands of the profession in conjunction with any additional management responsibilities. Within the context of this study, this appeared to be the case for senior managers in that they found teaching and all dimensions of teaching as significantly less stressful than middle managers. This may be attributed to the fact that their key role was management and this group has a

greater degree of control within the context of their school. However, findings may have been influenced by the relatively small number of senior managers surveyed in this study and may even suggest that the Stress in Teaching Scale was more reflective of the experiences of class teachers and middle managers within this Scottish context.

Nonetheless, it is clear that there are very different views of stress in teaching portrayed within this study. At one end of the professional development pendulum there are younger and, by default, less experienced teachers who do not perceive the profession as stressful and, at the other, more experienced teachers who are generally middle managers who perceived teaching as very stressful. It could be argued that these differences are due to the individual teacher's role within the profession and the level of role ambiguity and role overload associated with middle management (Cooper et al, 2001, Travers, 1996).

A further exploration of teacher perception of their everyday professional circumstances in relation to current role specifically provided a clearer understanding of why middle managers perceived teaching as significantly more stressful than their colleagues. This also provided further insight into the reasons why they had experienced changes in well being which would give cause for concern in general in relation to clinical populations. The middle manager in common with class teachers is actively involved in meeting the demands of workload and managing the range of interaction associated with the teaching learning interface on a daily basis. However, they are also charged with managing their departments and their colleagues at the same time.

Within the context of the study middle managers, in contrast to the class teacher and senior manager, perceived an additional range of aspects of work overload as stressful on a daily basis. Middle managers reported thirteen different aspects of teaching as stressful within their everyday professional context. They were the only group who perceived 'inclusive education' as stressful. In contrast to all other teachers who experienced 'indiscipline' as a significant source of stress, 'changing demands' was the main source of stress for middle

managers. In addition a range of issues pertaining to change in general such as 'not enough time for development work'; 'curriculum changes' and 'overload of new ideas' were also a source of stress for this group. The range and quantity of stressors experienced by middle managers and the demands of their role in terms of active teaching and management may explain their perception of teaching as stressful. However, it is suggested that along with these factors, the demands of 'change', and an apparent lack of time to embrace and implement changes may have impacted on teacher perception of stress and well being.

It is widely recognised that if stress is chronic, acute and/or cumulative in nature this can impact on well being over time (Antiniou, Polychmi & Walters, 2000). Ongoing exposure to this level of cumulative stress can, in the long term, lead to burnout, disillusionment and in addition impact on teacher self efficacy and pupil learning (Feijgne et al., 1995; Friedman & Lotan, 1993; Muller et al., 2005). However, it has also been highlighted that the professional context in which the individual is situated can enable the teacher to manage sources of stress (Griffith et al, 1999). It is therefore interesting to note that middle managers who perceived teaching as very stressful, who reported changes in well being that warranted therapeutic intervention. also perceived a number of dimensions of their occupational context as stressful.

These were related to professional ethos and perceived support and included 'low staff morale'; 'institutional politics'; 'insufficient non contact time' and 'management indifference'. While these issues were not the main sources of stress for the middle manager. it is conceivable that issues of low staff morale, levels of support in terms of available time to manage demands. and apparent lack of support from management could have impacted on the extent to which teaching was perceived as stressful. Issues of workload and interactions between teacher and pupil do not exist in isolation from the professional context in which the teacher is situated. Professional context is defined by the interactions of individual teachers with each other and of course their pupils. These transactions are integral to the ethos and

support systems within any occupation and in this instance the teaching context. It has been previously demonstrated that extrinsic factors such as 'change' can impact on professional ethos (Jennings & Kennedy, 1996). When we consider the extent of change experienced in the Scottish context since 1999 (Lennon, 2003) this may, in some way, explain why teachers such as middle managers charged with implementing 'change' perceived teaching as significantly more stressful than any other group. It is suggested at this juncture that more experienced, older teachers who, by and large, were also middle managers, perceived teaching as stressful and, in addition experienced significant changes in well being as a result of an interaction between all four dimensions of the teaching. In addition, the key difference between middle managers and their other colleagues which may explain differences in perception of teaching as stressful was 'changing demands' and the extent to which this impacted on middle managers, who appeared to be stretched to their adaptive capacities.

4.4.5. CONCLUSION

This study indicates that 92 per cent of teachers perceived the profession as 'quite' to 'very stressful'. Sixty-two percent of teachers rated indiscipline as their main source of stress on a daily basis. Teacher perception of stress in teaching changed significantly with age, years of teaching experience and in relation to current role. Middle Managers perceived teaching and a number of dimensions of their everyday professional context as significantly more stressful than class teachers or senior managers. General perception of the profession as 'stressful' (GPS) was significantly related to participants' perception of stress within their everyday professional context, their age, years of teaching experience and their current role. Teacher perception of their general well being (GHQ-30) was also significantly related to their perception of stress within their everyday professional context. Over 60 per cent of teachers indicated that their normal levels of well being had been significantly compromised during recent weeks. In comparison to the clinical population 45 per cent of teachers reported similar problems pertaining to feelings of personal ineffectiveness while around 32 percent

rated their well being in a similar manner to the Scottish clinical population in respect to levels of 'depression'; 'anxiety'; 'tension' and 'social avoidance'.

Teacher perception of stress in teaching and well being was significantly related to years of teaching experience and current role. In effect, teachers aged 40 and over, teachers with 16 and more years of teaching experience who were generally middle managers perceived teaching as stressful and also reported a significant decline in well being during the time of this study. Like all other teachers within the study, middle managers perceived issues pertaining to Work Overload and the Teaching-Learning Interface as stressful. However, middle managers' in particular rated a range of additional extrinsic stressors such as 'changing demands' linked to the work overload as 'stressful' on a daily basis. Middle managers perception of teaching as 'very' stressful and the significant changes in well being they reported were attributed to the interaction between the four dimensions of teaching: Work Overload; Teaching-Learning Interface; Professional Ethos and Perceived Support. Issues such as 'low staff morale'; 'institutional politics'; 'insufficient non contact time' and 'management indifference' may also have added to their perception of teaching as stressful. However, meeting the demands of change appeared to be the key factor that explained why middle managers in particular perceived teaching as stressful, and in addition experienced increasing feelings of personal ineffectiveness and depression.

There are many other factors which may have impacted on teacher perception of stress and general and well being during the time of this study. Therefore this study can only provide a picture of how Scottish Secondary School teachers, at this moment in time perceive 'stress in teaching' and inadvertently their precise professional circumstances. While a significant relationship was observed between perception of stress (GPS/SITS) and perception of well being (GHQ-30; GSC), the findings must however be treated with caution, as other aspects of the teacher life may have influenced these findings (Dunlop & MacDonald, 2004).

4.4.6 LIMITATIONS

These findings are specific to this group of teachers only and, due to the multi dimensional nature of a concept such as stress, there are many other aspects of a teacher's life that could impact on their perception of stress in teaching. However, it was useful to gain first hand from teachers, an insider view of their general perception of stress in teaching as well as the potential impact of their everyday professional circumstances on their personal well being. Findings indicate that teachers in general and older, more experienced, teachers who were generally middle managers, perceived the profession as significantly more stressful than senior managers in particular. However, as the study relied on teachers volunteering to participate and used self report measures exclusively, issues of volunteer bias and reliability could have influenced findings. In addition, senior managers as a group were under represented and therefore findings pertaining to this specific group of teachers should be considered in light of this.

4.4.7. FUTURE STUDY

Within the context of this study, it is apparent that there are differences in the extent to which Scottish secondary school teachers perceive the profession and specific dimensions of teaching as stressful. In addition, a relationship was observed between teacher perception of stress in teaching and perceived well being. In contrast to evidence which suggests that the initial years of teaching, can be very stressful as young teachers faces 'reality shock' (Huberman, 1993), younger and, by default, less experienced teachers did not find the profession stressful. In contrast, with the passage of time, experience and the responsibilities of middle management, teachers perceived teaching and their everyday professional context as comparatively more stressful. At the same time, they reported a decline in their normal levels of general well being.

This initial study has provided an overview of secondary school teachers' perception of stress in teaching within the Scottish context. In addition it provides a snapshot of the

professional context young teachers may enter into. To ascertain why it is that younger teachers may perceive the profession as less stressful necessitates a journey back in time to explore the student and inductee teachers' experience of stress in teaching respectively. Clearly, the demands that the student teacher faces will differ from the fully-fledged teacher in that constant performance evaluation is an integral component of the student teacher experiences of teaching. However, by exploring the student teachers' perception of their everyday professional context (placement) it will be possible to identify commonalities and differences in perception of stress in teaching between fully fledged and pre-service teachers who are currently earning their 'rite of passage' within the Scottish context.

The next chapter presents the findings from Study 2 (Chapter 5), which explored Physical Education Student Teachers' perception of stress in teaching. Study 2 focused exclusively on student teachers undertaking a four year undergraduate initial teacher education (ITE) or one year postgraduate (PGDE) program designed to produce secondary physical education teachers. This decision was based on a professional commitment to ensure that the research conducted can truly inform practice within, firstly ITE and, secondly, to strengthen the partnerships that support student teachers as they are inducted into the profession.

It is however fully acknowledged that this strategy may be a limitation of the research in that it only embraced the perceptions of a specific group of teachers (Physical Education secondary school specialists). Consequently, other student teachers from the range of secondary subjects were not provided with the opportunity to be heard at this juncture. It should be noted that no significant differences in perception of stress in teaching and general well being were observed in relation to the thirteen subject departments included in Study 1. However, it is intended that the studies reported in this thesis will inform future research designed specifically to capture those 'missing voices'.

CHAPTER 5

STUDY 2: STUDENT TEACHERS' PERCEPTIONS OF STRESS IN TEACHING

5.0 INTRODUCTION

This chapter comprises four sections. Section 5.1 provides an overview of research related to student perception of stress associated with teaching and being a student. This section also delineates the research questions that underpin the study reported in this chapter. Section 5.2 provides an overview and justification of the methodology utilised. Section 5.3 presents the study's main findings. Finally, section 5.4 comprises a discussion that places findings within the context of research in the field, prior to setting the scene for the final study which is reported in Chapter 6.

5.1. THE NATURE OF STRESS AMONG STUDENT TEACHERS

It has been suggested that the student teacher can experience more or less the same levels of stress as the fully-fledged teacher (Kyricaou, Hulgurten & Stephens, 1999) and that the first seeds of burnout, which is an outcome of prolonged exposure to stress, can be sown during the pre-service years (Gold & Roth, 1983). On the other hand it has been demonstrated that levels of stress experienced by students are not as high as those of their more experienced in-service colleagues (Gorrell, Bregman, McAllister & Lipscomb, 1980).

There is, then, a somewhat confused picture as to the extent to which student teachers experience stress. One possible reason for this is that student teachers could be compared to chameleons in that they make numerous transitions during their professional journey, from being a pupil-learner in school, to a student-learner in university to a student-teacher-learner within placement schools. Educational transitions in general can mark a time of real uncertainty (Pryjmachuk & Richards, 2007) as the young person steps into

for example, the uncharted territory of Initial Teacher Education (ITE). As they negotiate their forays into the world of ITE and teaching, students' continue to formulate a view of what it is to teach and be a teacher. Not surprisingly level of study within ITE programme as well as the precise nature of students' placement experiences could influence their perception of teaching and stress in teaching.

It is acknowledged that both teachers and student teachers pass through a series of phases on their developmental journey. Of course, the student teacher's perception of teaching may vary from that of the fully-fledged teacher simply because their teaching experience is steeped in evaluation by significant others and, is also a relatively short-lived albeit intense experience. Fuller (1969) highlights that the student teacher's experiences of teaching can be thought of as a developmental journey which can be depicted as a gradual shift from exhibiting one or other of three types of concern: concerns about *self* as teacher; concerns about *tasks* relating to the organisation and management of teaching and learning and concerns about the *impact* of their teaching on the learner. Fullers' model (1996) is depicted as:

'...a general movement outward from concerns about self, to concerns about situations and task then culminating in concerns about students (pupils)' (Conway & Clarke, 2003, p.467).

Building on this model, Maynard and Furlong (1993) conceptualised students' developmental journey in terms of 'idealism'; 'survival'; recognising difficulties'; 'hitting the plateau' and 'moving on'. As they negotiate their professional journey the students' 'idealism' is replaced with the need to 'survive' in terms of meeting expectations and being accepted. This stage is followed by recognition of difficulties, which have to be overcome, in their quest for success and positive evaluations. While some students plateau at this stage and remain primarily concerned with 'self' and 'tasks' others 'move on' to focus on the 'needs of the learner'. Interestingly, Capel, Leask and Turner (1995) highlight that the shift from a focus on self to learner is contingent upon

student confidence and furthermore, suggests that this level of confidence can take around six to seven weeks to build to a sufficient level. It would be assumed that the nature of students' concerns would change in line with developing confidence and autonomy within the teaching context (Hardy, 1996). However it should be noted that the exact nature of the teaching context could enhance and/or erode student levels of confidence (MacLean, 2007). In addition, the sequential nature of students' developmental concerns is contested on the basis that this model fails to recognise the uniqueness of the individual student teacher and their specific placement context (Conway & Clarke, 2003; Wendt, Bain & Jackson, 1981). Fuller's model may provide a means of understanding student teacher perception of stress in teaching in light of their developmental stage. However, it is important to take cognisance of the fact that 'learning to teach is a complex process and beginning teachers face many influences in their preparation for this role' (McCormack, 1997, p.1).

Their earliest experiences of PE and Sport, leading into their recruitment to the field of physical education, their ITE and placement experiences all exert powerful socialisation influences on the aspiring and beginning teacher. In the physical education context occupational socialisation is defined by Lawson (1983) as 'all kinds of socialisation that initially influence persons to enter the field of physical education and later are responsible for their perceptions and actions as teacher educator and teacher' (p. 107). Three key phases of occupational socialisation have been identified: anticipatory socialisation, professional socialisation and organisational socialisation (O'Bryant, O'Sullivan and Raudensky, 2000, p. 178). As the physical education student teacher earns their rite of passage to fully-fledged teacher each phase of occupational socialisation is considered to shape their personal philosophies, values and beliefs concerning physical education (Capel, 2005, p. 118).

Young people experiences of physical education and sport are considered to be instrumental in their decision to enter ITE and can

significantly influence how they approach the task of learning to teach (Schempp, 1989). Based on their own experiences of 'physical education' the individual would develop philosophies concerning the nature and purposes of P.E, what it is to be a P.E teacher and how they should teach. Lortie (1975) referred to this period of anticipatory socialisation as 'an apprenticeship of observation' while Green (1998) indicates that there is 'evidence to suggest that teachers' own experiences of school PE and of sport have a significant impact on both their sporting identities and their teaching identities' (p. 132).

Within the study reported in this chapter both undergraduate and postgraduate students enter ITE with their own unique biography, aspirations and beliefs about teaching physical education. Research indicates that this period of anticipatory socialisation leading to their recruitment into the profession can significantly influence the extent to which the individual engages with the philosophies of the ITE course and in addition placement contexts (McCormack, 1997). Moreover, there is continued debate surrounding the capacity of the ITE course to impact on, change or indeed challenge the views and beliefs of (physical education) student teachers (Cutner-Smith, 1999; Schempp & Graber, 2000).

As they enter the placement context, student teachers work side by side with their in-service colleagues and they are charged with putting theory into practice. Within the study reported in this chapter placement experiences ranged from six to eleven weeks however, although short lived this time could be considered as the starting point in the organisational socialisation of the physical education teacher. This phase of socialisation finds the student in a vulnerable position due to issues concerning role ambiguity , performance evaluation and the extent to which the student teachers is concerned with 'reality shock' (Veenman, 1984) and 'survival' (Huberman, 1993).

In an effort to 'fit in' and secure positive performance evaluations student teachers tend to adopt the philosophies and practices of their colleagues (Capel, 2005). When students

enter the induction phase and leave formal university evaluations behind it is possible that this desire to fit in may result in the messages of ITE being 'washed out' (Zeichner & Tabachnick, 1981) as they are further immersed in their unique occupational context. It is important at this point to reflect on the role of the teacher of physical education within the occupational socialisation process and the impact of the placement context they enter into. As stated earlier the individual plays an active role in the stress process (Wilson, 2003) and some would argue that the teacher is an active participant in the (occupational) socialisation process. For example, based on their extensive research regarding teacher socialisation Templin and Schempp (1989) portray teachers as active agents in a dynamic socialisation process leading to the formulation of their philosophies of teaching. On the other hand, contextual factors relating to the placement setting have been cited as impacting on the student teachers socialisation into the profession (McCormack, 1997).

The process of occupational socialisation and the nuances of the physical education student teacher's specific placement context could in some way influence the extent to which they perceive teaching as stressful. However, there is one other factor which may also influence perception of stress in teaching. The student (and teacher) of physical education has also to contend with issues of status concerning their 'subject' and the unique challenges of teaching and managing a 'moving class'. Physical Educations long struggle for recognition and status within schools has been well documented (Evans, Davies, & Penney 1996) and the literature clearly highlights the debates concerning the low professional status of physical education and physical education teachers within the field of education (Fitzclarence & Tinning, 1990; Houlihan; 1991, Stroot, Faucette & Schwager, 1993). The impact of battling against the issue of status was highlighted in Armour and Jones (1998) study of the lives and careers of PE teachers. Within this study, teachers appeared to be 'battling against' preconceptions about their subject while retaining a degree of resilience in the face of management indifference. Armour and Jones (1998) do however, raise concerns that within this context teachers would be left

with the 'daily burden of trying to prove themselves'(p.93).When we consider the physical education student teachers perception of stress in teaching it would be important to recognise the extent to which proving themselves as teachers, battling against status issues pertaining to 'physical education' , the process of occupational socialisation and their stage of development may shape these views.

While there is some disagreement over the extent to which students experience stress in teaching, and notwithstanding their socialisation into the profession and the developmental complexity of the student teacher's progress through training, there is evidence to suggest that stress among student teachers is a real phenomenon (Murray-Harvey, Sillins & Saebel, 1999). It is important to highlight that much of the research in this area looks at student concerns and anxieties or indeed perceptions concerning their teaching experience. Capel (1996) however, acknowledges that anxiety over time can lead to stress.

In a recent study in England, Chaplain (2008) concluded that 46 per cent of undergraduate student teachers generally perceived the profession of teaching as 'very' or 'extremely' stressful while, 38 per cent indicated that placement was 'very' to 'extremely' stressful (p.199). Concerns or potential sources of stress for the student teacher have been identified as 'evaluation anxiety' (Capel, 1993) 'coping and surviving' (Behets, 1990); 'content knowledge'; 'class management and class control'; 'being accepted' (Mawer, 1995); 'fear of failure' (Murray-Harvey, 1999), 'meeting expectations' (Borgess, McBride & MacGuire, 1988; Murray-Harvey, 2000), and 'others unrealistic expectations' (Polou, 2007).

Moreover, similar findings are derived from studies, which have examined this issue within a cross-cultural perspective. One such study utilised the Placement Concerns Questionnaire (Murray-Harvey, Sillins & Saebel, 1999) to explore Australian and Singaporean student teachers perception of stress in teaching. Singaporean students

perceived 'workload' and 'planning' as their main source of stress. In contrast, Australian students found 'having high expectations of their own performance' as their main source of stress. In addition, both groups perceived university evaluations, managing university assignments, and managing and enforcing discipline as sources of stress. Interestingly communicating with significant others within the department and with pupils, was not identified as a source of stress for either group. Overall Singaporean students reported higher levels of stress, which were attributed to the exam-orientated culture in which they are immersed and in addition, the formal nature of the relationship between student and supervisor. In relation to gender, females were more stressed by 'overall performance' and 'workload' within the Singaporean context than their male counterparts.

Of course, in reviewing such findings, it is important to remember that stress experienced by student teachers may arise, not as a consequence of being student teachers per se, but rather from the experience of being students in general. Numerous studies have indicated that the student concerns are generally associated with 'academic problems', 'assessment' and 'assignments' (Kippijng, 2000); 'adjusting to life as a student', 'overall workload'; and 'fear of failure' (Parkes, 1990). A study within the Scottish context highlighted concerns which were broadly consistent with the literature: 'coping with course content'; 'fear of failure', 'too little time to study due to other commitment'; 'lack of motivation'; 'lack of confidence, 'finances'; 'relationships with partner/parents', 'accommodation' and 'social problems' (Millings-Monk & Mahmood, 1999). Within this Scottish context, younger students perceived 'coursework' as significantly more stressful which might be a measure of their adaptation to the academic demands of university study. In addition many students had to work during term time and/or rely on their parents/partners for financial assistance.

One important aspect of stress as it relates to student teachers is that students perceive placement as the most significant part of their initial teacher education programme (Capel, 1996; Clement, 1999; D'Rozario & Wong, 1996; Locke, 1979; Morton, Vesco, Williams & Awender; Zeichner, 1993; 1997). However, while the level of significance attributed to teaching can heighten their drive to do well this may also serve to increase levels of stress in teaching. It is acknowledged that certain levels of stress can be a good for the teacher education student. However, as Mawer (1995) points out it can also be counter-productive if students are overly concerned about their future (p.11). It can be safely assumed that the ITE student is indeed concerned about their future as they strive to adapt to each teaching context, in full knowledge that significant others hold the key to their future progression as a teacher. Within this context they are not solely masters of their own destiny and this can lead to feeling of a loss of control and ownership of their professional development (Head, Hill & MacGuire, 1996; Daniels, et al., 2006; Raymond, Perry, Mandzuk & Hall, 2006).

As they enter the teaching arena the student teacher brings with them their own high expectations, their knowledge of 'curriculum ', 'pedagogy' and of course the 'learner'. Much is at stake in terms of meeting their own expectations, catering for the needs of their charges and meeting the expectations of their supporting teachers and university tutor. This time of transition and adaptation places the student in a vulnerable position of novice teacher who also has to grapple with the ambiguity associated with being both student and teacher at the same time (Bleach, 1998).

As students tentatively negotiate each placement it would be expected that they would develop a greater sense of mastery and control which in turn would enhance their self – efficacy. In relation to teaching, self efficacy is believed to be dependent on student perception of their ongoing efforts to master the art of teaching. Physiological changes can also serve as a measure of the extent to which they may be coping with demands.

At the same time self-efficacy can be buoyed by what Bandura (1997) defines as ‘vicarious experience’ and ‘verbal persuasion’. The many opportunities to observe experienced teachers within the placement context, is one example of ‘vicarious experience’. This type of experience can play a significant role in developing students’ self efficacy, if they can positively identify with and /or relate to the teacher being observed (Fives, Hamman & Olivarez, 2006). Verbal persuasion on the other hand, within the teaching context is akin to support, in terms of feedback and encouragement.

Interestingly, a study by MacDonald (1993) highlighted the importance of vicarious experiences and verbal persuasion within the placement context. This study demonstrated that students found it difficult to cope with ‘inconsistency’ in general and variations in teaching styles and the quality of feedback provided. The importance of all parties having realistic expectations and consistent approaches to ‘evaluation’ and ‘feedback’ were also highlighted in a study of ‘partnership’ in ITE within this Scottish context (Mulholland, 2004). Inconsistencies aside, all students face a range of generic demands within the placement context. Table 5.0 provides an overview of these demands and the climate of ‘constant performance evaluation’ the student teacher find themselves immersed in.

Table 5.0. Summary of the Demands of Placement

Professional Demands (PD)	Constant Performance Evaluation (CPE)
Classroom management	Self
Workload	Peers
Time Management	Pupils
Building Relationships	Teachers
Role Ambiguity	University Tutor

Ref adapted from Boyle, Riding & Fazlon, 1991; Kyriacou, 1987.

Constant observation, evaluation, verbal persuasion and vicarious experiences are integral and often motivating components of the students’ personal and professional development as a teacher. Nonetheless, these dimensions of teaching can at times, be perceived as relentless and exacting albeit potentially formative companions. Interestingly while

constant performance evaluation is considered a real concern for student teachers (Head, Hill & MacGuire, 1996) it has been argued that the overriding concern as they enter placement is believed to be that of 'survival' and 'fitting into' to their school context (Behets, 1990; Borgess, McBride & Griffey, 1985).

As the study reported in this chapter focuses specifically on undergraduate and postgraduate student teachers within the physical education domain, it is important to consider the physical education student teachers perception of stress in teaching in general, at this point. Capel (1996) followed undergraduate physical education students across three placements and utilised the Students Anxiety in Teaching Scale (Hart, 1987) to identify sources of anxiety. The main cause of anxiety was 'being observed, evaluated and assessed by the school experience supervisor'. The two items causing most concern in all three placements were linked to self-concerns and task concerns such as 'performance in front of the supervisor'; 'having a positive evaluation of their teaching' and 'meeting all of the variety of pupil needs'. Issues causing least concern changed over time, from 'co-operation with school staff' to 'completing lesson plans in the required format'. By the end of the third school experience, 'controlling noise level' and 'class control' caused least concern. However, it was concluded that the act of 'physically teaching' in terms of delivering the lesson and engaging pupils was anxiety inducing for students.

In relation to postgraduate physical education (PGPE) the main stressors observed by Hardy (1995a) within the English context, were task concerns such as 'content knowledge' (activities); 'structuring lessons'; 'selecting' and 'organising suitable materials' and 'controlling classes'. It was suggested that concerns about content knowledge might be a feature of mainly school-based programmes. It was also noted that some students expressed varying levels of concern which could be classified as impact concerns.

This finding supported the fact that there is increased evidence to indicate that the students (and teachers) developmental journey is not sequential. In fact, the developmental process is unique to each individual (Conway & Clarke, 2003; Wendt & Bain, 1981). In another study within the English context, Hardy (1995b) invited Post Graduate Physical Education students to indicate on a weekly basis, their current concerns about teaching. This study was conducted over two school placements of five and 11 weeks. The main concerns for postgraduate students within the context of this study were: 'adapting to being a teacher'; 'learning to teach and work with pupils'; 'coping with the demands of the PGDE course'; 'adapting to how schools work' and 'dealing with both school and university staff'.

5.1.1. IMPACT OF STRESS ON STUDENTS AND STUDENT TEACHERS

So what previous research has shown is that the issue of stress among student teachers in general, and among student PE teachers in particular, is a relatively complex question. However, evidence does exist that such stress plays a role in the life of the student teacher. Not surprisingly, then, there is also evidence, drawn in the main from studies of students embarking on professional education courses, that this stress has a consequential impact on these individuals.

In addition to examining students' experiences within a Scottish further education context Millings-Monk and Mahmood (1999) also explored the relationship between concerns and psychological wellbeing. Students concerns such as 'coping with course content' and 'finances' appeared to manifest themselves at an emotional level. The emotional problems experienced during the time of this study ranged from those associated with 'relationship problems' to 'feelings of suicide'. The most common health concerns as measured by the General Health Questionnaire-30 (Goldberg , 1972) and the Glasgow Symptom Checklist (Mahmood, 1999) were 'feeling constantly under strain'; 'inability to concentrate'; 'finding everything 'getting on top of them' and 'losing sleep over worry'.

Interestingly, female students perceived a significantly greater decline in normal levels of functioning during the time of the study, than their male counterparts. Interestingly, when Jones and Johnson (2000) surveyed 220 student nurses again within a Scottish context, they highlighted around 60 per cent of the this group of first year students had experienced significant affective distress during their initial placement experiences.

A study involving final year students based in a UK dental school found that 70 per cent of final year students experienced stress and pathological anxiety (Newbury–Birch, Lowry, & Kamalli, 2002). However, there is no way of verifying if this level of distress may simply be a feature of any final year of study. Interestingly when this study was extended across seven European dental schools, 36 per cent of students were found to exhibit signs of psychological distress and 22 per cent were classified as emotionally fatigued. Perception of stress associated with being a dental student was influenced by gender while perception of general well being was influenced by year of study. Interestingly physical activity was significantly related to low perceived stress levels and high perception of general well being status (p.24).

More recently, Prymachok & Richards (2007) explored the impact of ‘stressors’ on student well being, within a degree-nursing course (N=1,005) in England. Similar to Millings-Monk and Mahmood (1999) this study utilised a version of the General Health Questionnaire (GHQ-20) to provide an indication of changes in well being. The sources of stress identified were academic: ‘exams’, ‘fear of failure’ and ‘workload’; clinical: ‘placements’; ‘interpersonal relationships with other staff’ particularly ‘negative and hostile attitudes from superiors’ and personal and social: ‘finance’ and ‘issues relating to the home-college interface’. Around one-third of student teachers recorded GHQ scores indicative of requiring therapeutic intervention, which is considerably higher than the 14 and 18 per cent, observed within the general population (Goldberg & Williams, 1988). However it was pointed out that this figure is similar to general student populations. Prymachok & Richards, (2007) concluded that

student well being was compromised more by being a student than a (student) nurse.

As discussed earlier teaching places a range of demands on the individual, which may be demanding at a physical as well as a professional level. However a climate imbued with uncertainty, vulnerability and ambiguity must also challenge the student at both a cognitive and emotional level. In conjunction with the 'demands' of simply being a student it could safely be argued that the demands of teaching could serve to challenge and motivate the student teacher and play a crucial and positive role in their professional development. In effect stress can be positive in that it provides the challenges that drives us to reach our goals or negative in that it hinders us from achieving these goals. However it is important to acknowledge that the student's adaptation to their new and changing contexts, as firstly a student and secondly a student teacher, could have an influence on the extent to which stressors either challenge or hinder them during the pre-registration phase of their professional journey.

5.1.2. RESEARCH QUESTIONS

Previous research has shown that stress is a feature of the life of the student teacher. However, within the Scottish context views of physical education students in particular have not been sought. In addition, the inclusion of the PGDE (Physical Education) within this faculty for the first time, provides a unique opportunity to compare the views of students entering teaching from two very different routes. To harness students' perceptions of stress in teaching the research questions listed below underpinned the research (Student Study) reported in this chapter.

RESEARCH QUESTIONS

RQ1: To what extent do secondary school student teachers (physical education) within the Scottish context perceive teaching as stressful?

RQ2: Are there any specific variables which impact on these secondary school student teachers' (physical education) perception of stress in teaching?

RQ3: Among these student teachers, is there any relationship between perception of stress in teaching and perceived well being?

RQ4 In those cases where stress seems to be particularly relevant to the experiences of these student teachers, how is this represented in the ways in which they talk about those experiences? (In order to explore this last research question, the study methodology switches to qualitative analysis)

5.2. METHODOLOGY

5.2.0. INTRODUCTION

During session 2005-2006, the first Post Graduate Diploma in Education (PGDE) was offered in addition to the four-year undergraduate physical education programme. The main difference between courses rests with the time available for students' to develop the professional and personal skills (and confidence) deemed as pre-requisite for entering the induction phase of their professional journey. Undergraduate (BED) students complete four-years of pre-service training while postgraduate students (PG) enter into a one-year intensive course. The overarching aim of this study was to explore physical education student teachers' perception of stress in teaching. The study was divided into two phases. In Phase I perception of stress in teaching was explored quantitatively and significant differences in perception of stress in teaching were highlighted according to level of study (undergraduate, postgraduate). Phase II adopted a qualitative approach (interviews) to explore why specific groups of participants perceived teaching as significantly more stressful.

5.2.1. DESIGN AND PARTICIPANTS

In addressing the first three research questions, a survey method was adopted which was similar to that utilised in the previous chapter. In order to pursue the fourth research question an additional element was introduced in which some participants responded to semi-structured interview questions. In what follows, the quantitative aspects of the study are referred to as 'Phase I' and the qualitative aspects are referred to as 'Phase 2'. Phase I of the study was based on administration of a specially prepared questionnaire instrument having four subsections as described in the following section. Phase 2 of the study was based on administration of a specially prepared semi-structured interview protocol (See App. 7 (a)).

The study targeted student teachers currently studying within the Initial Teacher Education faculty, of a large university in the central belt of Scotland. On successful completion of their respective courses they would be qualified to teach Physical Education primarily in secondary schools. A 68 per cent response rate (N=197) was achieved from the 288 student teachers eligible to participate. The final sample comprised 175 undergraduate students BEd2 (N =69); BEd3 (N=65) and BEd4 (N=41) and 22 PGDE students. The gender balance was 80 males and 117 females.

5.2.2. SURVEY INSTRUMENT

This study used a survey questionnaire instrument and a semi-structured interview protocol. The questionnaire used in this study incorporated several existing questionnaires. However, an additional section was developed to address the specific issue of general student stress within the Scottish context. To develop this measure a pilot study was conducted in which a sample of students were asked to list 'aspects of their everyday student life' which caused them stress. A representative group of forty students participated in this pilot study in September 2005. The research purpose was explained and participants were assured that the study was anonymous. Questionnaires were completed collectively. In total the group highlighted 38 concerns. These were subjected to a content analysis that involved identifying common themes, checking for overlap and any anomalies in the data. After analysis, 30 items such as 'exams' and 'finance' were compiled in no particular order, to form the Stress in Students (SIS) measure. To ensure that the final instrument (SIS) fully embraced participants' perception of general 'student stress', they were given the opportunity to read and comment on the extent to which their views were represented. No modifications of the SIS instrument were required.

The final questionnaire comprised four sections. Section 1 contained three questions designed to gather demographic data such as gender and level of study. Both variables had previously been cited as impacting on student-teacher perception of stress (Bleach,

1998; Chaplain, 2008). One additional question was included to specifically explore general perception of stress in teaching. Questions three asked participants to rate the extent (0 – ‘not at all’ stressful’, 3= ‘very’ stressful) to which they generally perceived teaching as ‘stressful’. Responses to this single question provided a general measure of perception of stress (GPS) in teaching.

In Section 2 the Placement Concerns Questionnaire (PCQ) (see App.3) was included to measure students’ perception of stress in teaching. This measure had been used previously to explore student placement (teaching) concerns within the Australian and Singaporean context (D’Rozario & Wong, 1996; Murray-Harvey et al., 1999). The PCQ was adapted slightly to reflect the Scottish context. All of the 29-PCQ items were retained but terms used such as ‘supervisor’ was replaced by ‘class teacher/mentor’ to ensure clarity. Participants were invited to rate the extent (1= ‘never stressed me’ and 4 = ‘stressed me all of the time’) to which each of the 29 PCQ items such as ‘fear of failing’ and ‘establishing rapport with pupils’ stressed them during their recent placement experience. The PCQ served to identify the main ‘stressors’ for participants within the Scottish context.

Section 3 included the Stress in Students Scale (SIS) (See App.5) designed to measure perception of stress associated with being a student within this Scottish ITE context. Participants were invited to rate the extent (‘0’ = ‘not at all’ and ‘3’ = ‘very much’) to which each of the 30-SIS-items such as ‘family difficulties’ and ‘exams’ stressed them in their everyday student life. SIS served to identify the main ‘stressors’ for students within the ITE Scottish context.

In line with Study I (Chapter 4) Section 4 incorporated the General Health Questionnaire-30 (Goldberg, 1972) and the Glasgow Symptom Checklist (Mahmood, 1999) (See App.1 & 2). The GHQ contained 30 items such as ‘lost much sleep over worry’. Participants were presented with four options (0= ‘not at all’, 1= ‘no more than usual’, 2= ‘less than

usual', 3= 'much less than usual') and asked to select one that most accurately reflects their general well being in recent weeks. The GSC contained 44 items such as 'feeling helpless'. Participants were asked 'if you have experienced any of the following problems please indicate how much it bothered you in recent weeks. A rating scale including four options (0= 'not at all'; 1= 'slightly'; 2 = 'quite'; 3= 'very' much so') was used. Participants circled which statement most accurately reflected their recent status.

5.2.3. PROCEDURE

The survey questionnaire was piloted on the same 40 students involved in the initial development of SIS. This group completed the questionnaire in week one and then again in week two. As a final preliminary check on the survey instrument, participants' responses for each sub-section of the instrument as measured by Pearson's r , were as follows: GPS ($r = .8$); SIS($r = .7$), PCQ ($r = .8$); GHQ30($r = .7$) and GSC($r = .8$). These findings demonstrated that the survey displayed appropriate levels of reliability. A final version of the questionnaire was compiled and 290 copies were printed. The study took place during session 2005-6.

To ensure as good a response rate as possible the following steps were taken. Prior to each of the undergraduate groups and the postgraduate final placement, the researcher met with students and explained the research. Students were able to ask questions and then provide written consent if they agreed to participate in the study. Another meeting was arranged on students' immediate return from placement when they collectively completed and returned questionnaires. All participants were debriefed at this point and offered access to anonymous versions of the research findings on the completion of the study.

In Phase 2 of the study all PGDE students participated in semi-structured interviews (June 2006). On return from placement each PGDE student attended a pre-arranged interview session conducted in the researcher's office. Participants were reminded of the

purposes of the research and of the fact that all responses would be confidential and reportage of results would be anonymous. Agreement was sought from each participant that he or she was content for the interview to be tape-recorded. Upon agreement, tape-recording commenced and participants responded to each of the three interview questions in turn (see App 7a). The researcher carried out each interview personally to ensure reliability. During the interview process, non-leading prompts were employed in order to encourage participants to expand, where appropriate, on their answers. Once the interview was concluded, participants were thanked for their contribution. Subsequent to each interview, the tape-recorded material was transcribed. The level of detail of transcription ensured that a verbatim record of what was said was produced however; other aspects of speech such as intonation, pauses and non-verbal utterances were not included in the transcript.

5.2.4. VARIABLES DERIVED FROM THE SURVEY INSTRUMENT

Questions one to question two provided the independent variables in the study, which were level of study (undergraduate/postgraduate) and gender. The responses from question three provided a measure of general perception of stress (GPS) and served as a dependent variable. The total scores for the Placement Concerns Questionnaire (PCQ), Stress in Students Instrument (SIS), General Health Questionnaire (GHQ-30) and Glasgow Symptom Checklist (GSC) formed the other four dependent variables. In effect PCQ and SIS served as a measure of perceived stress associated with being a 'teacher' and 'student' respectively, while the GHQ-30 and the GSC were utilised to gauge perception of well being.

5.3 RESULTS

5.3.0 INTRODUCTION

In this section, the survey results (Phase I) and the results drawn from the semi-structured interviews (Phase II) are presented separately. The survey results section is structured in accordance with the survey instrument design. The first section outlines results for the General Perception of Stress (GPS) dependent variable. These results are presented in terms of overall findings and then broken down by 'level of study' and 'gender'. The second section adopts the same format in presenting the findings relevant to the Placement Concerns Questionnaire (PCQ) and the Stress in Students (SIS) dependent variable. The third section presents the findings for both the GHQ (General Health Questionnaire) and the GSC (Glasgow Symptom Checklist).

5.3.1 GENERAL PERCEPTION OF STRESS OVERALL FINDINGS

In section one of the questionnaire, there was in addition to the two demographic variables, a measure of general perception of stress in teaching. Figure 5.0 provides an overview of the overall responses of participants to questions three, as summarised by the 'general perception of stress' variable. This figure suggests that the majority of participants (N=126) perceived teaching as 'quite' ('2') stressful. Interestingly, only one participant generally perceived teaching as 'not at all' stressful.

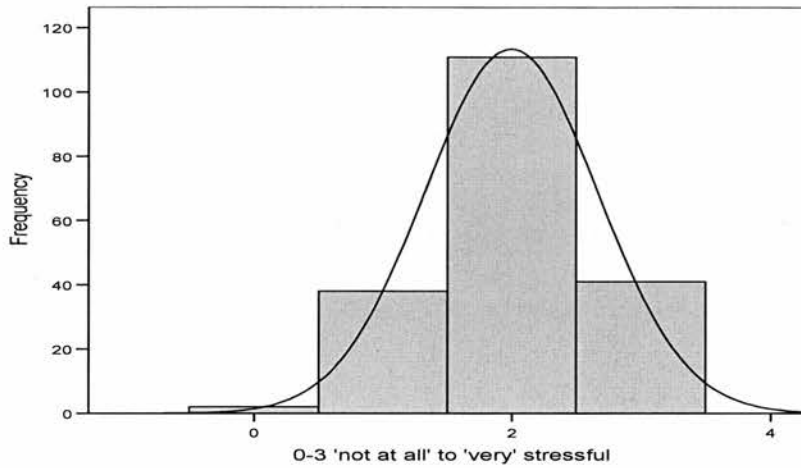


Fig 5.0. Distribution of General Perception of Stress in Teaching Responses (N=197)

A chi-square goodness-of-fit test showed that the frequencies of response within the general perception of stress variable were significantly different from the frequencies expected ($\chi^2(3) = 141.382, p = .001$). As explained in the previous chapter an adjusted standardised residual (ASR) of '2' and more highlights significant differences between observed and expected counts. Table 5.1 provides an overview of observed and expected counts across the four levels (0-3) of the GPS variable. Significant results are highlighted in bold.

Table 5.1 Comparison of observed and expected counts (ASR) each across level of the 'general perception of stress' (GPS) variable'

GPS Levels	Observed counts	Expected Counts	Residuals	Adjusted Standardised Residuals (ASR)
0 = 'not at all stressful'	2	56.3	-54.3	-7.2
1 = 'slightly stressful'	45	56.3	-11.3	-1.5
2 = 'quite stressful'	126	56.3	69.8	9.3
3 = 'very stressful;'	62	56.3	-4.3	-0.6

N=197

An examination of the adjusted standardised residuals as shown in Table 5.0 indicate that the proportion of participants perceiving teaching as 'not at all' stressful was significantly

(ARS= -7.2) less than expected While the proportion of participants generally perceiving teaching as ‘quite’ stressful was significantly (ARS= 9.3) higher than expected.

5.3.2. DIFFERENCES IN GENERAL PERCEPTION OF STRESS

In addition to examining the sample’s overall responses as measured by the general perception of stress variable these responses were explored in relation to ‘level of study’ and ‘gender’. In order to make these comparisons chi- square tests were conducted. Level of study did not have a significant ($\chi^2(9) = 13.242, p = .152$) influence on general perception of stress in teaching (GPS). Table 5.1 provides the adjusted standardised residuals (ASR) for each ‘age’ group across the four levels of the GPS variable.

Table 5.2 Comparison of observed and expected counts (ASR) across level (0-3) of the general perception of stress variable by ‘level of study’

		Level of Study				Total
		BED2	BED3	BED4	PGDE	
0= 'not at all' stressful	Count	1	1	0	0	2
	Expected Count	.7	.7	.4	.2	2.0
	% of Total	.5%	.5%	.0%	.0%	1.0%
	Adjusted Residual	.4	.5	-.7	-.5	
1= 'slightly' stressful	Count	10	16	11	2	39
	Expected Count	13.7	12.9	8.1	4.4	39.0
	% of Total	5.1%	8.1%	5.6%	1.0%	19.8%
	Adjusted Residual	-1.4	1.2	1.3	-1.3	
2= 'quite' stressful	Count	42	35	25	10	112
	Expected Count	39.2	37.0	23.3	12.5	112.0
	% of Total	21.3%	17.8%	12.7%	5.1%	56.9%
	Adjusted Residual	.8	-.6	.6	-1.1	
3= 'very' stressful	Count	16	13	5	10	44
	Expected Count	15.4	14.5	9.2	4.9	44.0
	% of Total	8.1%	6.6%	2.5%	5.1%	22.3%
	Adjusted Residual	.2	-.6	-1.8	2.8	
Total	Count	69	65	41	22	197
	Expected Count	69.0	65.0	41.0	22.0	197.0
	% of Total	35.0%	33.0%	20.8%	11.2%	100.0%
	Adjusted Residual					

Note: BED2 (N= 69); BED3 (N=65); BED4 (N= 41); PGDE: (N= 22)

Overall findings indicate there is no significant difference in GPS in relation to ‘level of study’. However, it is interesting to note that a significantly greater proportion of

postgraduate students than expected (ASR=2.8) perceived teaching as ‘very stressful’. In effect just under half (N=10) of the postgraduate cohort generally perceived teaching as ‘very stressful’.

Gender did not have a significant (χ^2 (dfs) = 6.982, $p = .072$) influence on the extent to which participants’ generally perceived teaching as stressful (GPS). Differences in general perception of stress in teaching did however almost reach statistical significance at the $p \leq .05$ level. Figure 5.3 suggests that this may be a consequence of the greater proportion of female participants generally perceiving teaching as ‘quite’ to ‘very’ stressful than their male counterparts.

Table 5.3 Comparison of observed and expected counts (ASR) across levels (0-3) of the general perception of stress variable by ‘gender’

		Gender		Total
		Male	Female	
0= 'not at all stressful'	Count	2	0	2
	Expected Count	.8	1.2	2.0
	% of Total	1.0%	.0%	1.0%
	Adjusted Residual	1.7	-1.7	
1= 'slightly stressful'	Count	21	18	39
	Expected Count	15.8	23.2	39.0
	% of Total	10.7%	9.1%	19.8%
	Adjusted Residual	1.9	-1.9	
2= 'quite stressful'	Count	42	70	112
	Expected Count	45.5	66.5	112.0
	% of Total	21.3%	35.5%	56.9%
	Adjusted Residual	-1.0	1.0	
4= 'very stressful'	Count	15	29	44
	Expected Count	17.9	26.1	44.0
	% of Total	7.6%	14.7%	22.3%
	Adjusted Residual	-1.0	1.0	
Total	Count	80	117	197
	Expected Count	80.0	117.0	197.0
	% of Total	40.6%	59.4%	100.0%

Note: Male (N = 80) Female (N= 117)

5.3.3. PLACEMENT CONCERNS QUESTIONNAIRE (PCQ)

The purpose of this part of the analyses was to further explore significant findings revealed by the study of the general perception of stress variable (GPS). In the preceding section it was shown that overall participants generally perceive teaching as ‘quite’ stressful. In

addition, a significantly greater proportion of postgraduate students than expected generally perceived teaching as 'very' stressful. However, while the 'general perception of stress' measure provides a snapshot of participants' perception of stress in teaching, it does not provide an answer to why the group perceive teaching as 'quite' stressful or why around half of the postgraduate cohort perceive teaching as 'very' stressful. The Placement Concerns Questionnaire (PCQ) (See App. 3) discussed in this section provides a means of answering these further questions.

Preliminary Data Reduction via Factor Analysis

In Section 3 of the questionnaire 29 items were utilised to measure participants' perception of stress within their everyday placement context. A preliminary check of scale reliability indicated that the 29 PCQ-items did represent a single scale ($\alpha = .892$). However, as this section comprised 197 participants' responses to 29-items it was appropriate to reduce the data. To verify PCQ sub scales, confirmatory factor analysis was performed (with varimax rotation). The factorability of the scale was evident from a Kaiser-Meyer-Olkin score of .832 and a Bartlett's test of sphericity which was significant at the $p = .001$ level. Cattell's Scree test (1966) highlighted four components within PCQ. A seven-factor solution was previously identified within the PCQ by D'Rozario & Wong (1996). However within the study reported in this chapter the PCA supported a four-factor solution similar to that proposed by Murray-Harvey, Sillins & Saebel (1999). However within this Scottish context the division between school and university evaluation appeared somewhat 'blurred'. Therefore within this study these 'items' were placed together under F1: 'Performance Evaluation'.

The other three factors were labelled as F2: 'Professional Interactions'; F3: 'Managing Workload' and F4: 'Class Management'. Table 5.1 provides an overview of items within each factor with loadings of .6 and above. Factor 1 to 4 accounted for 27.1; 7.6 ; 6.1 and 5.0 per cent of the variance in PCQ scores, respectively. In total these four factors

explained 46 per cent of the variance in PCQ scores. A summary of each of the factors is provided below while Table 5.4 provides a more detailed overview of the results of the PCA.

F1: Performance Evaluation: this factor comprised eight items such as ‘fear of failing’ and ‘others expecting too much’. The main stressors for the group according to highest mean were ‘having high expectations of own performance’ and ‘being observed by university tutor’

F2: Professional Interactions: this factor comprised eight items such as ‘giving appropriate feedback to pupils’ and ‘communicating with mentor’. The main stressors for the group were ‘delivering the lesson’ and ‘communicating concepts and ideas to pupils’.

F3: Managing Workload: this factor comprised seven items such as ‘balancing placement/personal demands’ and ‘writing detailed lesson plans’. The main stressors for the group were ‘coping with overall workload’ and ‘managing placement related assignments’.

F4: Class Management: this factor comprised six items such as ‘teaching mixed ability classes’ and ‘helping pupils with learning difficulties. The main stressors for the group were ‘managing the class and enforcing discipline’ and ‘helping pupils with emotional/behavioural difficulties’.

Table 5.4. Placement Concerns Factors with variance, items (Mean/SD) contributing to each factor and loadings on each factor, plus subscale Cronbach's Alpha.

Factor (no items)	Variance	Item No.	PCQ 'item'	Loading	Mean	SD	Alpha Cronbach			
F1: Performance Evaluation (8)	27.1	1	Fear of failing	.476	2.00	.83	.83			
		4	Expecting too much of own performance	.538	2.72	.84				
		5	Others' expecting too much	.452	2.10	.82				
		11	Being observed class teacher	.673	2.02	.69				
		12	Being evaluated class teacher	.671	2.09	.72				
		13	Communicating with University tutor	.362	1.67	.78				
		14	Being observed by university tutor	.819	2.61	.89				
		15	Being evaluated by university tutor	.801	2.60	.90				
		F2: Professional Interactions (8)	7.6	8	Communicating /relating to principal teacher	.597		1.32	.60	.79
				9	Communicating relating to other teachers	.598		1.37	.63	
				10	Communicating with mentor	.605		1.36	.61	
				19	Establishing rapport with pupils	.564		1.49	.67	
				21	Delivering the lesson	.584		1.82	.64	
				22	Communicating concepts /ideas to pupils	.591		1.76	.63	
				23	Giving appropriate feedback to pupils	.524		1.60	.64	
24	Managing individual work with pupils			.574	1.55	.59				
F3: Managing Workload (7)	6.1	3	Balancing placement/personal demands	.369	2.09	.72	.75			
		6	Coping with overall workload	.581	2.43	.78				
		7	Managing placement related assignments	.543	2.41	.97				
		16	Writing detailed lesson plans	.682	2.07	.76				
		17	Selecting appropriate content for lessons	.685	2.32	.77				
		18	Preparing resources for lessons	.662	1.89	.70				
		30	Managing Time	.599	1.92	.74				
		25	Managing the class and enforcing discipline	.321	1.99	1.5				
		26	Helping pupils with learning difficulties	.701	1.93	.71				
		27	Helping pupils with emotional/behavioural difficulties	.741	1.98	.72				
F4: Class Management (6)	5.4	28	Teaching mixed ability classes	.493	1.80	.68	.56			
		29	Marking pupils written work	.381	1.55	.69				

5.3.4 PCQ FACTORS: OVERALL RESPONSES

F1: Performance Evaluation

Within Factor 1 a score of '8' indicated that no item stressed participants while a score of '32' indicated that all of the eight items stressed participants all of the time. Figure 6.0 provides an overview of the distribution of scores within the F1: Performance Evaluation variable. The 'normal curve' provides an indication of the extent to which responses fall within the normal distribution expected in a hypothetical population. Scores ranged from 8 to 28. At this stage of the analysis involved four dependent variables a Bonferroni adjusted alpha value of $p \leq .012$ was applied.

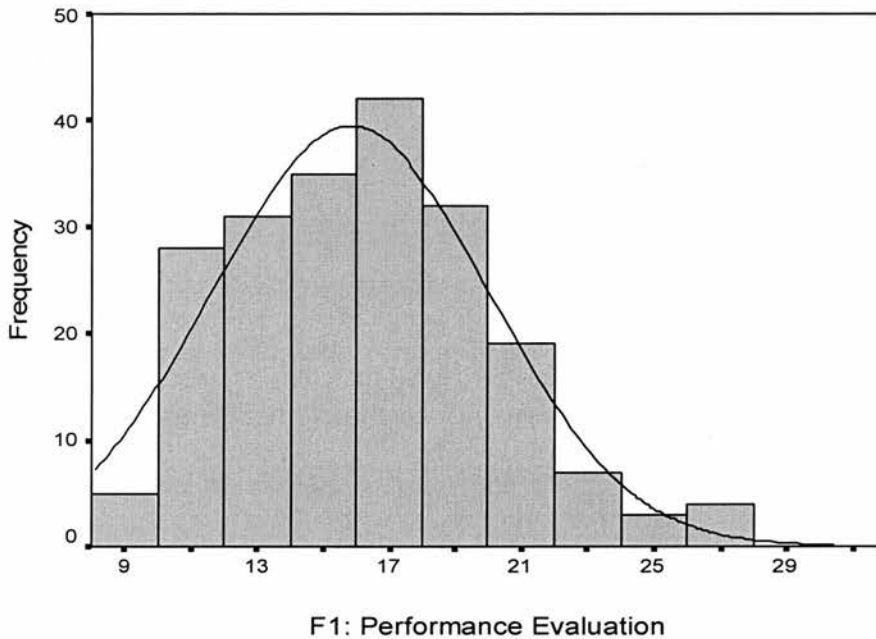


Fig.5.1. Distribution of F1: Performance Evaluation Mean Scores (N=197)

To assess the extent to which the distribution of F1: Performance Evaluation responses fall within the normal distribution a one-sample t - Test was conducted. In relation to F1: Performance Evaluation the lowest point was '8' and the highest point was '32' therefore

the test-value was set at '12'. The group recorded a mean of 16.2 (4.13) for F1: Performance Evaluation. Results for the *t*-Test ($t = 14.403(197)$, $p = .001$) indicated that participants' perceived F1: Performance Evaluation as significantly more stressful, than would be expected in a normal hypothetical population.

F2: Professional Interactions

Within Factor 2 a score of '8' indicated that no item stressed the participant at all while a score of '32' indicated that all of the eight items stressed participants all of the time. Figure 6.1 provides an overview of the distribution of scores within the F2: Professional Interactions variable. Mean scores ranged from 8 to 26

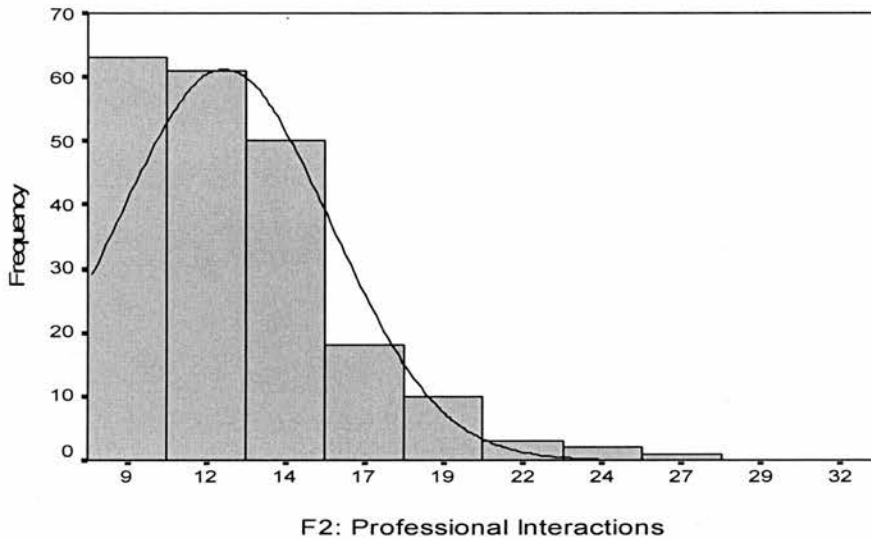


Fig 5.2. Distribution of F2: Professional Interactions Mean Scores (N=197)

In relation to this factor the lowest point was '8' and the highest point was '32' therefore the test-value was set at '12'. The group recorded a mean of 12.6 (3.39) for F2: Professional Interactions. Results for the *t*-Test ($t = 1.229(197)$, $p = .220$) indicated that participants' perceived F2: Professional Interaction as no more or less stressful, than would be expected in a normal hypothetical population.

F3: Managing Workload

Within Factor 3 a score of '7' indicated that no item stressed the participant at all while a score of '28' indicated that all of the seven items stressed participants all of the time. Figure 6.3 provides an overview of the distribution of scores within the F3: Managing Workload variable. Scores ranged from 9 to 27.

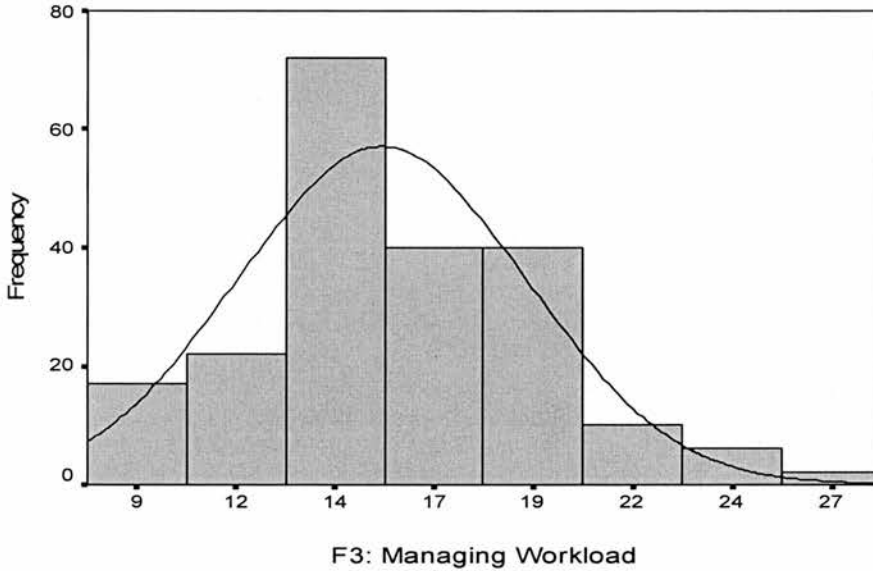


Fig. 5.3 Distribution of F3: Managing Workload Mean Scores (N=187 Missing=10)

In relation to this factor the lowest possible score was '8' and the highest was '28' therefore the test-value was set at 10.0. The group recorded a mean of 11.2 (2.79) for F3: Managing Workload. : Results for the *t*-Test ($t = 19.54(197)$, $p = .001$) indicated that participants' perceived F3 Managing Workload as significantly more stressful, than would be expected in a normal hypothetical population.

F4: Class Management

Within Factor 4 a score of '6' indicated that no item stressed the participant at all while a score of '24' indicated that all of the six items stressed participants all of the time. Figure

6.3 provides an overview of the distribution of scores within the F4: Class Management variable. Scores ranged from 5 to 23.

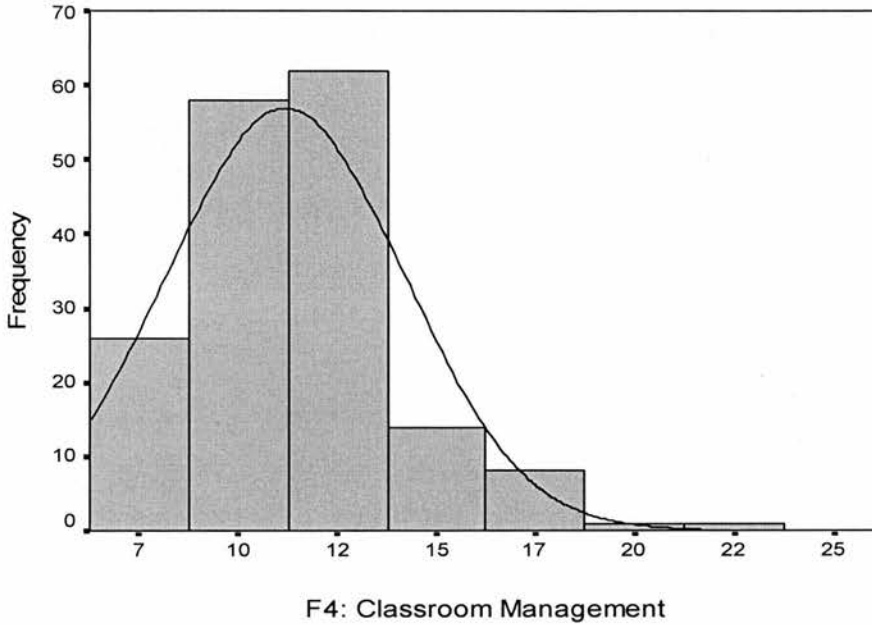


Fig. 5.4 Distribution of F4: Class Management Mean Scores (N=187)

In relation to this factor the lowest point was '6' and the highest point was '24' therefore the test-value was set at '9'. The group recorded a mean of 10.9(2.65) for F4: Class Management. Results for the *t*-Test ($t = 8.432 (197), p = .001$) indicated that participants' perceived F4: Class Management as significantly more stressful, than would be expected in a normal hypothetical population.

5.3.5. DIFFERENCES IN PCQ FACTOR RESPONSES

Overall the Placement Concerns Questionnaire (PCQ) Factor responses indicate that participants perceive F1: Performance Evaluation; F3: Managing Workload and F4: Class Management as significantly more stressful than the 'hypothetical population'. Interestingly they do not perceive F2: Professional Interaction as 'stressful'. In addition to examining the

sample's overall responses as measured by PCQ factors these were also compared in relation to 'level of study' and 'gender'. The four PCQ dependent variables were continuous in nature and the two independent variables were categorical. However, as 'gender' and 'level of study' were discrete groups it was important to look at the possible interaction between both variables in relation each of the PCQ variables. A two-way MANOVA was conducted to explore the four PCQ factor responses in relation to level of study and gender. There was no need to set a Bonferroni adjustment at this stage as MANOVA makes this adjustment.

No significant interaction effects were observed between level of study and gender in relation to F1: Performance Evaluation ($F= 1.236; p = .299$), F2: Professional Interactions ($F= 2.343, p = .076$); F3: Managing Workload ($F= 2.475, p = .064$) or F4: Class Management ($F= 1.290, p = .280$). However significant main effects were observed in level of study in relation to F1: Performance Evaluation ($F= 2.698, p = .048$); F2: Professional Interaction ($F= 3.609, p = .017$); F3: Managing Workload ($F= 6.001, p = .001$) and F4: Class Management ($F= 2.877, p = .038$).

Post hoc comparisons indicated that the postgraduate cohort perceived F3: Managing Workload as significantly more stressful than all of the BEd groups (p range from .001 to .021). In additions they perceived F2: Professional Interaction as significantly more stressful than the BED2 group ($p= .028$), and F4: Class Management as significantly ($p = .05$) more stressful than the BED4 group. It should be noted that a significant main effect was also observed in gender in relation to F1: Performance Evaluation with a male mean score 14.9(3.87) and a female mean score of 16.5 (4.31).

5.3.6. STRESS IN STUDENTS (SIS)

The purpose of this phase of the analysis was to explore participants' perception of general stress associated with being an ITE student. While the previous section provides an overview of participants perception of stress in teaching it is always possible that the findings reported are in some way influenced by the general stress associated with 'being a student'. As participants are ITE students and teachers at the same time it is only right that we explore their perception of general student stress and place these findings alongside their perception of stress in teaching. The Stress in Students scale (see App. 4) discussed in this section provides a means of exploring the other dimension of the ITE students' reality. As is shown below the Stress in Students scale (SIS) comprises four factors. The first aim of this section is therefore, to explore overall perception of general student stress in terms of these four SIS Factors. In line with previous analyses SIS Factor responses will then be explored in relation to 'level of study' and 'gender'.

Preliminary Data Reduction via Factor Analysis

In section two of the questionnaire 30 items were utilised within the SIS instrument to measure general perception of student stress. A preliminary check of scale reliability indicated that the 30 SITS-items did represent a single scale ($\alpha = .83$). However, as this part of the research comprised 197 participants' responses to 30-items it was appropriate to reduce the data. In order to derive composite scores from the 30-individual items a Principal Components Analysis (PCA) with varimax rotation was performed. The Kaiser-Meyer-Okin value of .7, which exceeded the recommended value of .6 and the Bartlett's test of Sphericity reached statistical significance ($p \leq .001$). PCA revealed four components with eigenvalues above 1, supporting the factorability of the correlation matrix.

The four components explained 18.6, 9.1, 6.0 and 5.5 per cent of the variance respectively. An overview of the number and types of items contributing to each of the SIS sub-scales is outlined below. In addition the main stressors, according to highest mean are also identified. Table 5.2 provides an overview of items within each factor with loadings of .4 and above.

Factor 1: Course Demands- this item contained 11 items such as ‘fitting everything in’ and ‘too little time for studies’. The main stressors for the group within this factor were ‘assignments’ and ‘exams’

Factor 2: Perceived Efficacy: this item contained eight items such as ‘lack of status’ and ‘future prospects’. The main stressors for the group were ‘other’s expectations’ and ‘choosing placement schools’,

Factor 3: Personal Professional Interface- this item contained six items such as ‘flatmates’ and ‘having to live away from home’. The main stressors within this factor were ‘finances’ and ‘keeping fit’.

Factor 4: Perceived Support - this item contained five items such as ‘lecturer’ attitudes’ and ‘timetable’. The main stressors for the group were ‘lack of academic support’ and ‘availability of course materials’.

Table 5.5. Stress in Students Scale items (Mean/SD) contributing to each factor, item loading on each factor, plus subscale Cronbach's Alpha.

SIS ITEM	Components identified by PCS with Oblimin Rotation	Loading	Mean	SD	Explained Variance	Alpha Cronbach
F1: Course Demands (11)						
2	Assignments	.661	2.20	.70		
4	Fitting everything in	.678	1.88	.85		
6	Too little time for studies	.587	1.35	.82		
10	Fear of failure	.650	1.85	.96		
19	Deadlines	.729	1.79	.84		
22	Having to have a job and study	.436	1.03	1.0		
2	Exams	.427	2.17	.96		
Factor 2: Perceived Efficacy (8)						
8	Being a student	.401	.63	.85		
9	Lack of status	.533	.59	1.1	9.1	.63
11	Peers	.473	.57	.81		
12	Others' expectations	.483	1.19	.98		
15	Bullying	.572	.19	.54		
18	Future Prospects	.465	.17	.67		
26	Choosing placement schools	.529	.91	.85		
27	Balancing family/other commitments	.405	.80	.94		
Factor 3: Managing personal-professional interface (6)						
5	Keeping fit	.421	.96	.95	6.0	.63
7	Having to live away from home	.501	.52	.85		
13	Finances	.475	1.66	1.1		
16	Having to live away from friends	.583	.56	.84		
28	Flatmates	.655	.44	.71		
23	Accommodation	.645	.49	.78		
Factor 4: Perceived Support (5)						
3	Lack of academic support	.603	1.47	.99	5.5	.59
15	Availability of course materials	.421	1.40	.80		
21	Lecturers attitudes	.710				
24	Timetable	.627	.72	.76		
29	Lack of quality academic feedback	.603	.49	.78		

5.3.7. STRESS IN STUDENTS (SIS) OVERALL RESPONSES

F1: Course Demands

Within F1: Course Demands a score of '0' indicated that no item was perceived as 'stressful' while a score of '33' indicated that each of the 11 items was perceived as very stressful'. Figure 5.6 presents an overview of the distribution of mean scores within this factor. The normal curve provides an indication of the extent to which responses fall within the normal distribution of a 'hypothetical' distribution. Scores ranged from 4 to 23. As there were four dependent variables a Bonferroni adjusted alpha value of $p \leq .012$ was applied.

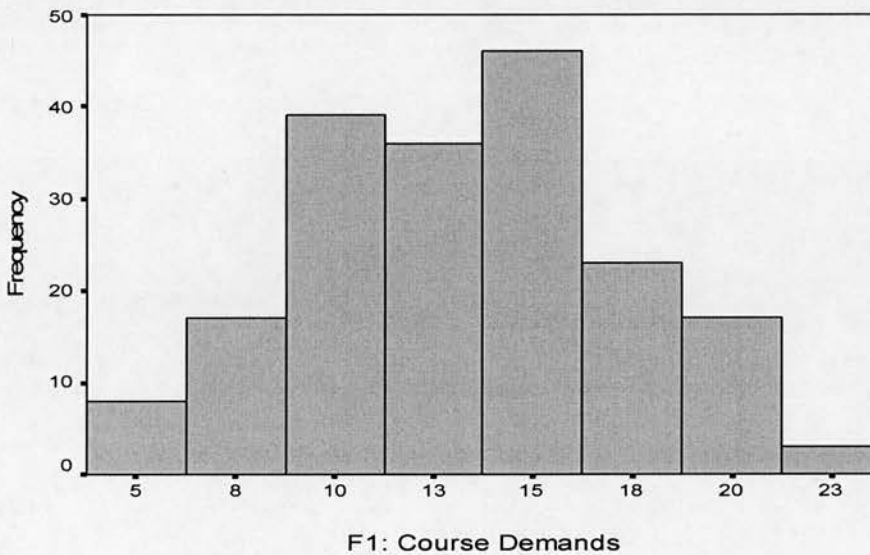


Fig 5.6. Distribution of F1: Course Demands Mean Scores (N-187) Note: Missing=10

In relation to this factor the lowest score possible within this factor was '0' and the highest score possible was '33' a test value of 16.5 was set. The group recorded a mean of 13.3 (4.05) for F1: Course Demands. To assess the extent to which the distribution of F1: Course

Demands responses fall within the normal distribution a one-sample *t*-Test was conducted. Results for the *t*-Test ($t = -3.640$ (187), $p = .001$) indicate that participants viewed F1: Course Demands as significantly less stressful, than expected within a normal hypothetical population.

F2: Perceived Efficacy

Within F2: Perceived Efficacy a score of '0' indicated that no item was perceived as 'stressful' while a score of '24' indicated that each of the 8 items was perceived as 'very stressful'. Figure 5.7 presents an overview of the distribution of mean scores within this factor. Scores ranged from 0 to 16.

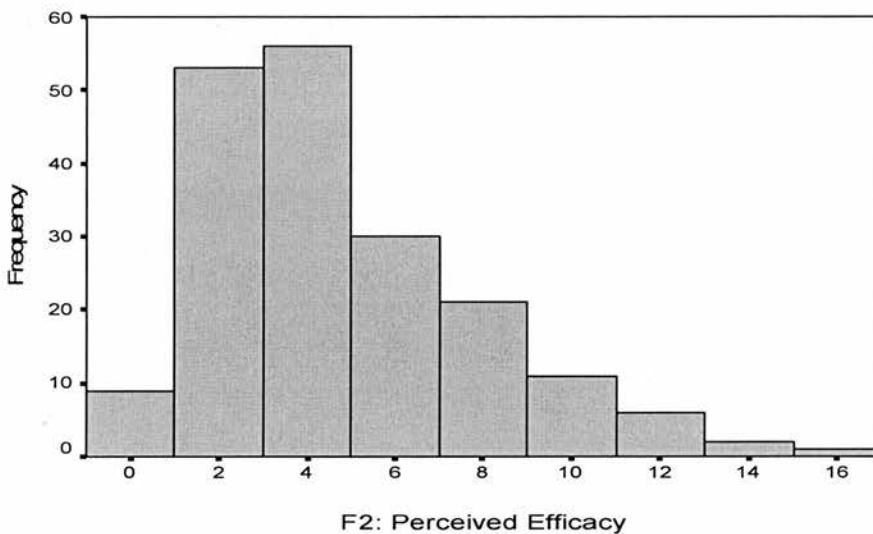


Fig 5.7. Distribution of SIS F2: Perceived Efficacy Scores (N=187)

The lowest score possible within this factor was '0' and the highest score possible was '24' therefore a test value of '12.0' was set. The group recorded a mean of 4.61(3.96). Results of the *t*-Test ($t = -22.476$ (186), $p = .001$) indicate that participants perceived F2:

Perceived Efficacy as significantly less stressful, than expected within a normal hypothetical population.

F3: Personal Professional Interface

Within F3: Personal Professional Interface a score of '0' indicated that no item was perceived as 'stressful' while a score of '18' indicated that each of the six items was perceived as 'very stressful'. Scores ranged from 0 to 16. Figure 5.8 presents an overview of the distribution of mean scores within this factor.

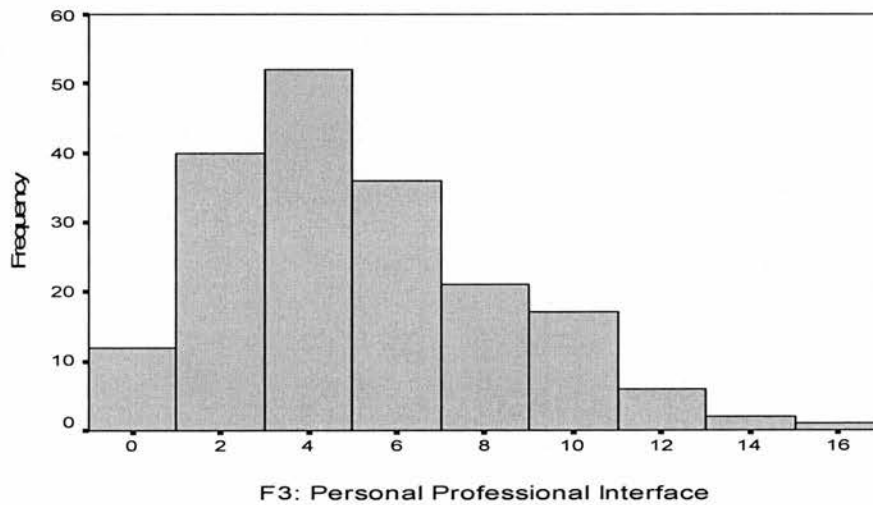


Fig 5.8. Distribution of SIS F3: Personal-Professional Interface scores (N=187)

The lowest score possible within this factor was '0' and the highest score possible was '18' therefore a test value of '9' was set. The group recorded a mean of 4.91(3.12) for F3: Personal Professional Interface. Results of the *t*- Test ($t = -19.222 (186), p = .001$) indicate that that participants' perceived F3: Personal Professional Interface as significantly less stressful, than would be expected within a normal hypothetical population.

F4: Perceived Support

Within F4: Perceived Support a score of '0' indicated that no item was perceived as 'stressful' while a score of '15' indicated that each of the five items was perceived as 'very stressful'. Scores ranged from 0 to 14. Figure 5.9 provides an overview of the distribution of mean scores within this factor. Scores ranged from 0 to 14.

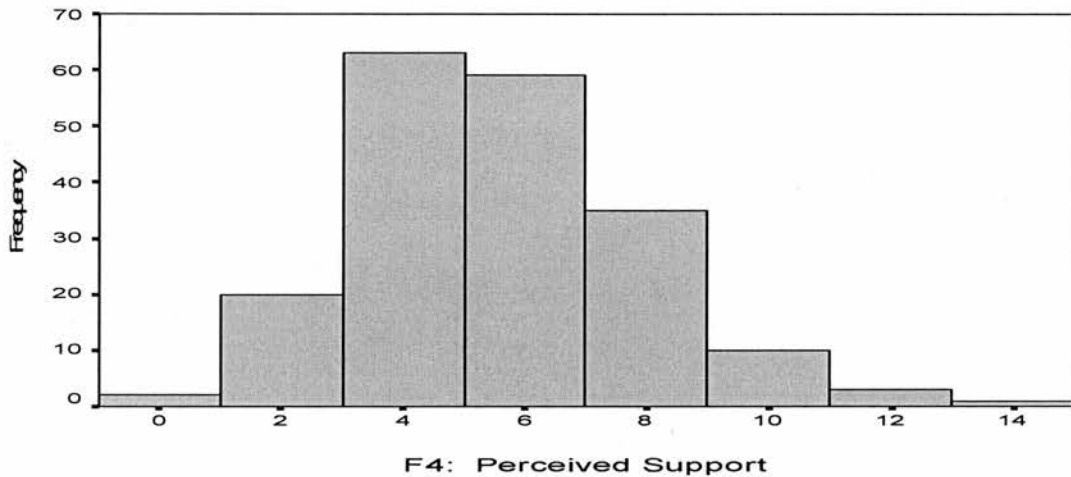


Fig 5.9. Distribution of SIS F4: Perceived Support Scores (N=187)

The lowest score possible within this factor was '0' and the highest score possible was '15' therefore a test value of '7.5' was set. The group recorded a mean of 5.8 (2.64) for F4: Perceived Support. Results of the *t*-Test ($t = -9.023$ (192), $p = .001$) indicate that participants perceived F4: Perceived Support as significantly less stressful, than would be expected within a normal hypothetical population. Overall students in this study do not appear to see any of the dimensions of student life represented by the four SIS factors as 'stressful'.

5.3.8. DIFFERENCES IN STRESS IN STUDENTS' (SIS) RESPONSES

In addition to examining the samples' overall responses as measured by SIS Factors it is also possible to compare these responses in relation to level of study and gender. A 4 x 2 MANOVA was conducted to explore the four SIS Factor responses in relation to both of these independent variables. No significant interaction effects were observed between level of study and gender in relation to F1: Course Demands ($F=1.128, p=.339$); F2: Perceived Efficacy ($F=.341, p=.796$); F3: Managing Workload ($F=.525, p=.666$); or F4: Perceived Support ($F=1.403, p=.244$). However, there was a significant main effect for level of study in relation to F2: Perceived Efficacy ($F=7.340, p=.001$). Figure 5.10 suggests that both PGDE and BEd4 students perceived this dimension of 'being a student' as more stressful than their younger undergraduate counterparts. This figure does not however, imply a linear relationship between level of study and perceived efficacy, as 'level of study' comprised four discrete groups.

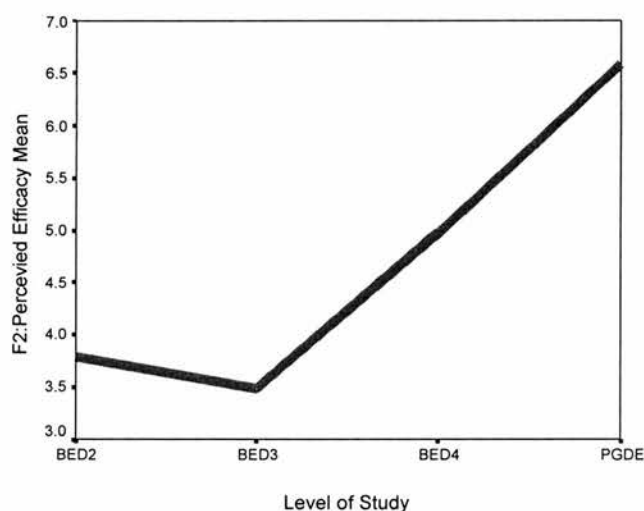


Fig 5.10. Mean SIS F2: Perceived Efficacy Responses according to 'level of study' BED2 (N=69); BED3 (N=65); BED4 (N=41) PG (N= 22)

However, post hoc comparisons indicated that it was the PGDE cohort who was significantly more stressed by F2: Perceived Efficacy than either the BEd2 ($p < .001$) or BEd3 cohort ($p = .001$). There was also a significant main effect for gender in F1: Course Demands ($F=7.189, p = .008$), with male participants recording a mean score of 12.1(4.26) while females recorded a mean score of 13.9 (3.96).

5.3.9. PERCEPTION OF WELL BEING

The results of the preceding section reveal that participants in general are significantly less stressed by PCQ F4: Class Management than expected. However, postgraduate and female participants perceived a number of dimensions of teaching and 'student life' as significantly more stressful. Previous research suggests that where individuals reporting 'higher levels' of stress, as in the case of the postgraduate and female participants, they often also report experiencing a range of health concerns. It is therefore useful to explore the extent to which the participants who report teaching as 'stressful' within this study report similar levels of concern in relation to health related issues of this sort. As explained in previous sections (Chapter 3 and 4) the General Health Questionnaire (GHQ-30) and the Glasgow Symptom Checklist (GSC) are utilised to gauge the extent to which individuals are currently, or have recently experienced changes in their normal levels of well being. In the present study all participants completed both questionnaires. The aim of this section is to explore the extent to which information gathered from the GHQ-30 and GSC can shed light on the results reported in preceding sections. (While this study has considered the student perception of stress in teaching (PCQ) and general student stress (SIS) it is important to bear in mind that it has not explicitly considered participants personal-professional interface beyond that of 'student life').

Preliminary Correlational Analyses

As a preliminary step, scores derived from PCQ and SIS Factors were compared to that of the General Health Questionnaire-30 (GHQ-30) and the Glasgow Symptom Checklist. A relatively high level of correlation would be expected between GHQ-30 and GSC scores if it is indeed the case that levels of stress represented by both PCQ and SIS scores are associated with varying levels of health concerns. (In addition since both measures are validated scales, relatively high correlations would provide a measure of concurrent validity for SIS). SPSSv14 was used to compute total mean scores for PCQ Factors, SIS Factors, the GHQ-30 and the GSC. To explore the relationship between firstly the PCQ and the other two measures, Pearson's Product Moment Correlations were calculated. Table 5.6 provides a summary of the correlations between both measures of stress (PCQ/SIS) and well being (GHQ-30/GSC).

Table 5.6 Correlations for Placement Concerns Questionnaire Factors, Stress in Students Factors and General Health Questionnaire case (GHQ-30) and Glasgow Symptom Checklist (GSC)

Placement Concerns Questionnaire (PCQ) and Stress in Students (SIS) Factors	GHQ-30	GSC
PCQ F1: Performance Evaluation	.492*	.608*
PCQ F2: Professional Interactions	.500*	.511*
PCQ F3: Managing Workload	.651**	.698**
PCQ F4: Class Management	.169	.175
SIS F1: Managing Demands	.321**	.373**
SIS F2: Professional Efficacy	.350**	.409**
SIS F3: Personal Professional Interface	.383**	.096**
SIS F3: Perceived Support	.262**	.221*

**significant at $p = .01$ level; * significant at $p \leq .05$ levels

Not surprisingly strong to medium positive correlations were identified between the GHQ-30/GSC and PCQ Factors identified by the group and postgraduate students in particular, as stressful. In addition no significant correlation was observed between PCQ F4: Class Management and GHQ-30/GSC. This was the one factor not perceived as 'stressful' by the group as a whole. Positive relationships were observed between all SIS Factors and the GHQ-30 although the correlation was weaker in relation to SIS F4: Perceived Support. Interestingly there was no significant relationship between SIS F3: Personal Professional Interface and GSC responses.

Having established there does appear to be a link between levels of stress in teaching, 'student life' and level of concern with a variety of health concerns associated with well being this section now goes on to present analyses, which are analogous to those outlined in the preceding sections. First GHQ-30 and GSC responses for the sample population as a whole are examined. Following this the relative impact of 'level of study' and 'gender' is explored.

5.3.10. GHQ-30 AND GSC OVERALL RESPONSES

Thirty GHQ items such as 'found everything getting on top of you' and 44 GSC items such as 'having recurring thoughts' (See App 1 & 2) were rated by participants according to changes from their 'norm' in recent weeks. A descriptive analysis of GHQ-30 and GSC responses was conducted and 'items' in which participants had experienced significant changes to their normal levels of well being were identified. Participants' perceptions of changes to their norm, as represented by the GHQ-30 and the GSC, were considered holistically, as responses were representative of how they were feeling 'generally' in recent weeks.

Table 5.7 lists the five main ‘problems’ ranked according to percentage of participants perceiving these as ‘rather’ to ‘very much more’ worse in recent weeks. Almost 40 per cent of participants reported that they felt much to very much more ‘under constant strain’ in recent weeks. Overall, one-fifth of participants experienced a decline in their ability to socialise and enjoy everyday activities. In addition, just less than one-fifth of participants reported that they had experienced a much greater decline in their normal levels of confidence.

Table 5.7. Main problems experienced by student teachers in rank order according to proportion (f / %) of participants reporting each as ‘much’ to ‘much worse’ (GHQ-30/GSC) than their norm in recent weeks (N=197)

Five main problems experienced by students (during teaching ‘placement’)	Proportion	
	<i>f</i>	<i>%</i>
1-5		
GHQ-14 Felt constantly under strain	77	39.7
GHQ-5 Been getting out of the house as much as usual	51	25.7
GHQ-17 Been able to enjoy everyday activities	49	24.9
GHQ-21 Found everything getting on top of you	48	24.6
GHQ-23 Been losing confidence in yourself	47	24.2

5.3.11. PERCEIVED WELL BEING: A COMPARISON TO A GENERAL (GHQ-30) and CLINICAL (GSC) POPULATION

To further explore student teachers’ perception of well being their GHQ-30 and GSC responses were compared to that of the general and clinical population respectively. It was anticipated that perception of changes in well being would be reflective of those reported in a ‘general population’ as opposed to ‘clinical population’.

General Health Questionnaire-30

First total GHQ-case scores were used to compare student teacher responses to that of the general population. As explained previously generally a case score of '5' is used to indicate what is referred to as 'caseness'. This 'label' implies that the changes in normal level of functioning would warrant therapeutic intervention (Millings-Monk & Mahmood, 1999). Due to the limitations of this method of scoring participants responses are compared to a cut off point for 'caseness' of '5', '10' and '20'. Student teachers scores were then compared to that of a general population. Figure 5.11 provides a summary of the comparison between student teachers in this study and the general population surveyed in a study by Cox et al (1987). This figure suggests that there are some similarities between the student group and the general population when a 'case' score of '5' is applied.

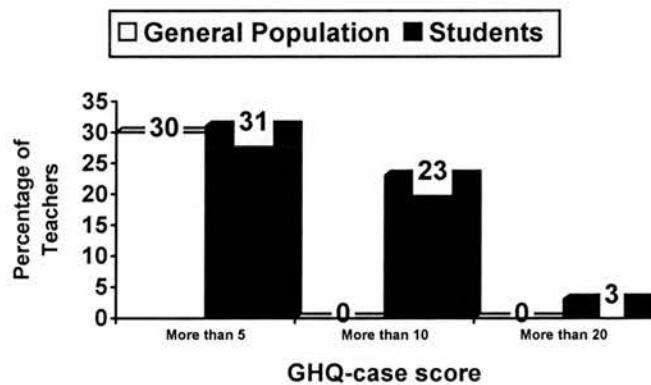


Fig. 5.11. Distribution of GHQ 'case' scores: a comparison between students (N=197), teachers (N=400) and the general population (N=6498)

In relation to GHQ case where the highest score possible was 30, scores ranged from 0 to 26 with a mean of 7.6 (6.60). Thirty-one per cent of student teachers actually scored in

excess of 'five' indicating 'caseness'. However this fell to 23 per cent when the cut off score was set at '10'. Interestingly, while no cases over ten were reported in the general population, almost one-fifth of students fell into this category with a further three percent scoring in excess of 20, indicating a significant change in normal levels of functioning.

Glasgow Symptom Checklist

Secondly, GSC factor scores were compared to a clinical population (CP) drawn from a Scottish context. In the first instance participants' means scores for each of the seven GSC Factors were placed alongside the norms (Mean +1SD) of the clinical population drawn from a Scottish outpatient context (Mahmood, 1999). Table 5.8 provides details of this comparison as well as the main problem identified by participants as a whole within each of the seven factors. Participants GSC Mean Factors scores suggest that as a group they did not experience the same level of problems in recent weeks as reported in a 'clinical population'. This is as would be expected, however it should be noted that almost 30 per cent of participants reported the same level of concern with issues relating to F3: Tension as reported in the clinical population. While just over one fifth were experiencing similar problems to the clinical population in relation to F6: Loss of Control.

Table 5.8 Proportion of student teachers (ST) (N = 197) recording Glasgow Symptom Checklist (GSC) Factor scores similar to the Clinical Population (CP) Norms (Mean \pm SD)

GSC Factor	Example of GSC Item	CP Norms	Mean Score (ST)	ST within CP Norms
F1: Personal Ineffectiveness	Tiredness	11-27	5.8(5.4)	14.4
F2: Depression	Recurring thoughts	8-19	3.9(4.5)	15.2
F3: Tension	Light headed	1-7	1.7(4.5)	29.5
F4: Anxiety	Feeling tense	6-13	2.6(2.9)	11.5
F5: Social Avoidance	Avoiding people	4-13	1.6(2.2)	11.4
F6: Loss of Control	Need drink or drugs	2-7	1.7(1.9)	25.5
F7: Somatic Problems	Feeling sick	2-6	1.3(1.1)	18.0

5.3.12. DIFFERENCES IN PERCEIVED WELL BEING

General Health Questionnaire

In addition to exploring overall GHQ/GSC responses it is also possible to explore these responses in relation to 'level of study' and 'gender'. Due to the nature of the sample non parametric version of the chi-square was conducted and significant differences were observed in GHQ responses according to 'level of study'. This was based on both the postgraduate and BEd4 undergraduate group recording significantly higher scores than the BEd2 and BEd3 group. When the more rigorous cut off score of '10' was applied the BEd4 (M10.4 SD6.91) group would be considered 'cases'. While the postgraduate cohort (M7.38 SD7.60) would fall into the category of 'case' if the cut-off score remained at '5'. However, it should be noted that mean (SD) scores indicated a level of variability in GHQ responses. This suggests that while both groups could be considered as 'cases' at different levels, there would be participants who clearly fell into this bracket and other who clearly did not. No significant differences ($t = -1.020$; $p = .309$) were observed in GHQ responses according to gender.

A 7 x 2 MANOVA was conducted to explore the seven GSC Factor responses in relation to gender-level of study. No significant interactions were observed between level of study and gender in relation to any of the seven GSC Factors. However, significant differences in GSC Factor scores according to level of study were highlighted in relation to all GSC Factors at $p = .001$ level apart from F3: Tension ($F = 1.042$, $p = .376$). Figure 5.12 provides an example of mean differences in one of the GSC factors (F1: Personal Ineffectiveness) according to 'level of study'.

The figure below suggests that the BEd2 and BEd3 students have experienced fewer

problems in relation to F1: Personal Ineffectiveness than both the BEd4 and PG cohort.

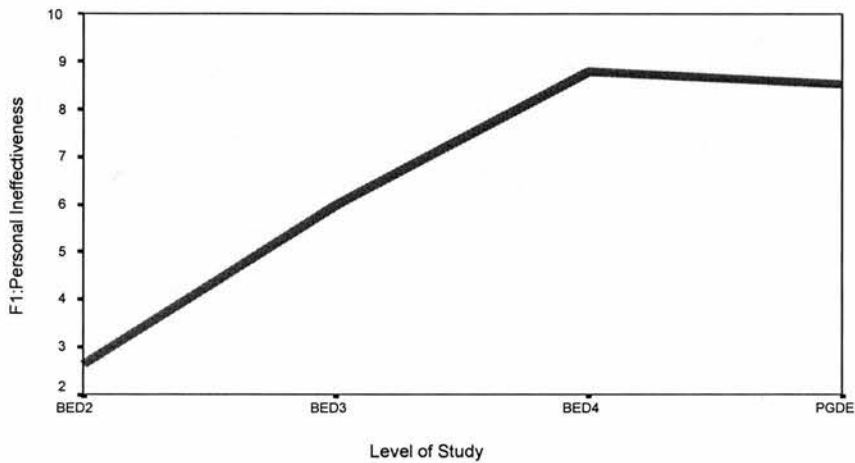


Fig.5.12 GSC F1: Personal Ineffectiveness Mean Scores in relation to 'level of study' (N=197)

Post hoc comparisons indicated that both the BEd4 and PGDE cohort scored significantly higher than both the BEd2 and BEd3 ($p = .001$ to $.004$) group in relation to F1: Personal Ineffectiveness; F2: Depression; F4: Anxiety and F5: Loss of Control. It should be noted that significant differences in GSC F3: Tension responses were observed in relation to gender ($p = .02$) with males recording a mean 2.0 (2.73) and females recording a mean of 3.15 (3.06) for this specific factor.

5.5.13: PREDICTORS OF WELL BEING

The relationship between perception of stress in teaching (PCQ), general student stress (SIS) and perception of well being was explored by means of multiple regression analyses. Two factors (PCQ: Class Management and SIS: Perceived Support) were excluded as correlations did not meet the criteria of $r = > .03$ (Tabachnik & Fidell,

2001). The three remaining PCQ Factors explained 32 and 47 per cent of the variability in GHQ-30 and GSC scores respectively. Factor 3: Managing Workload was the main predictor of both GHQ-30 (beta= .540) and GSC (beta = .558) responses. However, it should be noted that the contribution of F1: Performance Evaluation (beta = -.454, $p = .095$) almost reached statistical significance at the $p \leq .05$ level in relation to GSC scores

Table 5.9 Multiple Regression Analysis of Effects of PCQ Factors on GHQ (a) and GSC (b)

(a)

Model		Un-standardised Coefficients		Standardised Coefficients		
		B	SE	Beta	T	Sig
1	Constant)	-16.872	13.291		-1.269	.222
	F1: Performance Evaluation	.767	1.063	.210	.722	.481
	F2: Professional Interactions	-.007	3.082	-.001	-.002	.998
	F3: Managing Workload	2.770	1.314	.540	2.055	.057
	F4: Class Management	-.100	1.732	-.013	-.058	.955

GHQ (case)

(b)

Model		Un-standardised Coefficients		Standardised Coefficients		
		B	SE	Beta	T	Sig
1	(Constant)	-39.898	15.125		-2.638	.018
	F1: Performance Evaluation	2.148	1.209	.454	1.776	.095
	F2: Professional Interactions	-1.874	3.507	-.137	-.534	.600
	F3: Managing Workload	3.616	1.495	.558	2.418	.028
	F4: Class Management	-.922	1.971	-.095	-.468	.646

GSC

In relation to general student stress (SIS) F1: Course Demands; F2: Perceived Efficacy and F3: Personal Professional Interface explained 14 and 19 per cent of the variability in GHQ-30 and GSC scores respectively. SIS F1: Course Demands was the main predictor of GHQ-30 scores (beta = .224) and GSC (beta= .318) respectively (see Table 5.10a and 5.10b). However, it should be noted that F3: Personal Professional Interface (beta= .168, $p= .028$) also made a significant contribution to variance in GHQ-30 scores. In addition F2: Perceived Efficacy (beta= .257, $p= .001$) also made a significant contribution to variability in GSC scores.

Table 5.10 Multiple Regression Analysis of Effects of SIS Factors on GHQ (a) and GSC (b)

(a)

Model		Un-standardised		Standardised		
		Coefficients		Coefficients		
		B	SE	Beta	T	Sig
1	(Constant)	-.531	1.484		-.358	.721
	F1: Course Demands	.338	.113	.224	3.002	.003
	F2: Perceived Efficacy	.239	.160	.116	1.492	.137
	F3: Personal Professional Interface	.338	.153	.168	2.210	.028

GHQ (case)

(b)

Model		Un-standardised		Standardised Coefficients		
		Coefficients		Coefficients		
		B	SE	Beta	T	Sig
1	Constant)	-1.702	3.880		-.439	.661
	F1: Course Demands	1.264	.295	.318	4.287	.001
	F2: Perceived Efficacy	1.392	.420	.257	3.315	.001
	F3: Personal Professional Interface	-.448	.400	-.085	-1.119	.265

GSC

Phase 2

5.3.14 SEMI-STRUCTURED INTERVIEWS

The postgraduate (PG) cohort and female students generally perceived teaching as significantly more stressful than undergraduate (BEd) students. Based on this it was not surprising to find out that this specific group of students perceived a number of dimensions of 'teaching' and 'being a student' as significantly more stressful than their undergraduate counterparts. In particular PG students perceived F3: Managing Workload and F2: Perceived Efficacy as significantly more stressful in relation to 'teaching' (PCQ) and 'being a student' (SIS) respectively. No gender differences were observed within the PG group in relation to perception of teaching as stressful. However, it was interesting to note that gender differences were observed within the student teacher group as a whole. It would be interesting to explore this further at a later date, to ascertain why female students perceived the performance evaluation dimension of teaching, and the ITE course demands as significantly more stressful than their male counterparts.

Meanwhile, to understand why PG students perceived teaching as significantly more stressful than any other group, their experiences of 'teaching' and 'being a student' were explored in more depth by means of semi-structured interviews. The data gathered from these interviews are presented in this section. Of course, a full analysis of twenty-two interviews would be too extensive for the present context. The intention at this point in the research was to expand on the main findings from the quantitative aspect of the study. The quantitative analyses revealed that postgraduate students were especially stressed about 'Performance Evaluation'; 'Managing Workload'; 'Class Management' and issues

of 'Perceive Efficacy' associated with 'being a student' Accordingly, the interview responses were analysed within the framework (Taylor-Powell & Renner, 2003) of the four significant sources of stress for the PG cohort Subsequently, the qualitative analysis presented here focuses solely on those aspects of participants' interview responses that touched on those areas.

Procedure

All PGDE (N=22) students participated in semi-structured interviews in June 2006. A series of three open-ended questions invited students to reflect on their recent placement, to describe their experiences and highlight any aspects of the placement that had made teaching a stressful experience for them during this time (See App 7). Once the interviews had been conducted, the relevant audio recordings were transcribed. As a preliminary step in analysis, the participants' responses to each of the questions posed by the interviewer were collated separately. The collated data representing participants' responses to each of the three questions were then actively read and re-read (Dye, 2000) in order that the researcher could familiarise themselves with the PG students' responses. A preliminary process of identifying emerging thematic categories was then carried out. This entailed considering the 'text' and developing phrases that explained key issues within the data in order to summarise their meaning and identify the emergence of categories (Glaser, 1964; Podlog & Eklun, 2006) within each the main source of stress for PG student teachers. In particular the researcher was interested in understanding 'why' the group perceived specific aspects of teaching and being a student as very stressful. Reference to field notes taken during each of the interviews further supported the initial analytical process. For example, where participants' responses contained reference to the demands they

encountered during their teaching experiences these sections of the participants' responses were annotated as belonging to the same 'Demands of Teaching' category.

As this procedure was carried out, a process analogous to the grounded theory notion of 'saturation' (Rudestam & Newton, 2001) was followed. If a categorisation represented relatively few instances, it was rejected. If a categorisation represented a substantial number of instances, then it was retained. Moreover, in some of these cases, categories that represented a large number of instances were sub-divided. For example, the initial categorization 'Adapting to evaluation' was sub-divided into 'Adapting to constant evaluative scrutiny'; 'Adapting to evaluative feedback' and 'Adapting to formal university evaluations.

The categorisation procedure was independently carried out by two separate raters (the researcher and a research colleague) to ensure investigator triangulation. Following this, the two raters discussed all of the categorised instances drawn from the interview transcripts. In most cases, there was broad agreement in categorisation of a particular instance. Where disagreement arose, the raters discussed the features of the relevant instance in depth and subsequently agreed on an appropriate categorisation (Sproule, Kinchin, Yelling, McMorris & McNeill, 2002). Appendix 8.0 contains a summary of categories and sub-categories identified during this process. To support the inclusion of each category in the final model, which explains why PG students found teaching and being an ITE student stressful, examples of substantive statements are also provided. When data was analysed within the framework of the significant sources of stress for the group (Performance Evaluation, Managing Workload, Class Management & Perceived Efficacy) it became clear that perception of stress in teaching was contingent on the student teachers' 'Adaptation to Evaluation', 'Adaptation to the Demands of Teaching'

and 'Adapting to Expectations'. This process was underpinned by a cyclic process of observation-evaluation-feedback-reflection-action, which is an integral feature of learning to teach. In addition issues of perceived efficacy were an ever-present entity for the group as they adapted to these demands and attempted to meet a diverse range of expectations (See Figure 5.13).

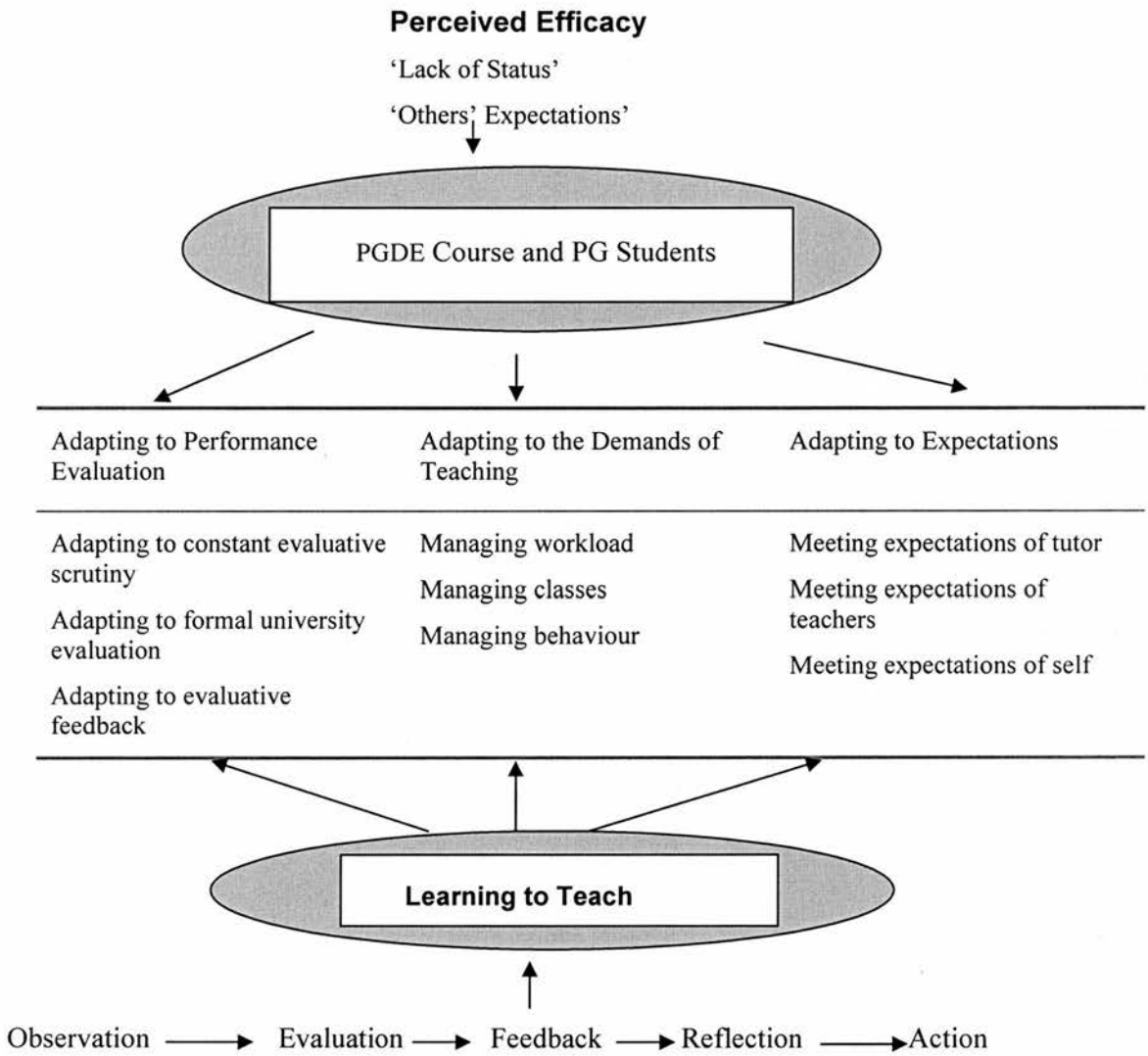


Fig. 5.13. Understanding Postgraduate Students' Perception of Stress in Teaching

5.3.15: POSTGRADUATE PERCEPTION OF STRESS IN TEACHING: SUMMARY OF FINDINGS

This next section presents a summary of the findings from the Post Graduate students semi-structured interviews. Findings are summarised under the headings of ‘Adapting to Performance Evaluation’; ‘Adapting to the Demands of Teaching and ‘Adapting to Expectations’.

5.3.15.1 Adapting to Performance Evaluation

Within the context of this study Performance Evaluation was a source of stress for all student teachers. However analysis of PG interviews highlighted that the process of adapting to evaluation, at a number of levels, was stressful for this group. ‘Adapting to constant evaluative scrutiny’; ‘adapting to evaluative feedback’ and ‘adapting to formal university evaluations’ presented students with a range of challenges to overcome.

‘Adapting to constant evaluative scrutiny’ refers to the students’ efforts to develop their pedagogical and personal skills while being immersed in a climate of constant scrutiny. Within every lesson they are at the centre of an on-going cycle of observation, evaluation; feedback- reflection-action (see Figure 5.13). It is not surprising that adapting to being a teacher under this level of constant scrutiny was considered stressful (Extract 1).

Extract 1 (Male)

“You do get used to the teacher sitting in your lesson and observing but I do think it effects your teaching because you’re not used to it. It kind of represses you. I found it hard to show my personality through my teaching. I used to try and do what I thought they (teachers) wanted me to do. It was helpful them being in as you got feedback at the end but it takes a bit of getting used to being able to let go with someone in the room all the time...watching you (INT3)

The student clearly highlights the personal difficulties experienced as a consequence of

this level of constant evaluative scrutiny. The student is involved in an interaction with the teacher, which on one hand plays a key role in supporting their learning and on the other requires a level of adaptation by the student. It should be pointed out that students have five placements during the course of the PG course. While some appeared to adapt to constant evaluative scrutiny during this time others found this a constant source of stress.

Another source of stress related to performance evaluation was 'adapting to formal university evaluations'. This refers to the students' adaptations to the tutor visit and that formal evaluation of their teaching performance. The majority of students perceived 'formal university evaluations' as stressful. Students responded to this situation in a number of different ways. Extract 2 provided one example of a student who appeared to engage in a constant dialogue with themselves during the evaluation in terms of worrying about the significance of the tutor's actions. When this is coupled with a desire to 'do their best' it is not surprising that formal university evaluation was seen as stressful.

Extract 2 (Female)

" The stress I feel during the crit (evaluation) is off the scale...you get used to the class teachers being in the class and writing down stuff, but then you've got someone else there and you see them marking down things with their pen and I think right what have I done wrong here and how can I fix it. Their coming out to give you a grade and if you have an off day, they're seeing that and that's going to go down as your mark. It's never going to be perfect but you need to do the best you can and you want it (lesson) to flow easily and get the content right" (INT A).

This particular student appears to be engaging in an internal dialogue and degree of rumination during the evaluation. This is perhaps due to the significance she is attaching to this encounter in terms of wanting to do her best. At one level she is concerned about

having an 'off day' and at another, there are concerns about the delivery of the lesson and whether the context selected is appropriate. Adapting to the formal university evaluation in this instance appears to be underpinned by pedagogical and content issues. In addition, the finality of this type of evaluation appears to make adapting to this situation more difficult. For many students, formal university evaluations were perceived as something to 'get over with' and a 'constant source of worry'. However, some students found that focussing on the pupils and how they responded to the lesson allowed them to relax and 'perform' to the best of their ability. During the formal evaluation, others remained acutely aware of the tutors' presence and perceived their role as 'examiner'. It was however, acknowledged that the 'anticipation' of the formal university evaluation was often more stressful than the actual event. While the students own approach to this evaluation could influence the 'stress-value' of the formal university evaluation it is also emerged that the supervisory style adopted, also plays a key role. To summarise, students highlighted a number of factors which served to make the adaptation to 'formal university evaluations' more or less stressful.

MORE STRESSFUL

- One student was placed late and only had one full week 'teaching' prior to the university evaluation.
- Discussing the appropriateness of 'content' just before the formal evaluation caused additional stress.
- Students shared 'horror stories' of tutor visits, which increased their levels of anxiety.

LESS STRESSFUL

- If the university tutor spent time ‘putting them at ease’ before the formal evaluation
- If the university tutor was ‘approachable’
- If the university tutor was ‘willing to give them a chance’
- If the university tutor was ‘aware of their context’
- If the university tutor ‘provided constructive feedback’
- If the university tutor provided examples of ‘how things could be done better’

Evaluative feedback is an integral part of the student teachers developmental journey. In the context of placement ‘adapting to evaluative feedback’ refers to the informal and formal instances in which the student teacher receives feedback on their teaching performance. It normal practice for class teachers to provide feedback after each lesson taught during the school placement. Feedback can be written and /or verbal. Within the context of this study, student teachers valued and actively sought out evaluative ‘feedback’ from teachers and tutors alike. However this dimension of their experiences was stressful at a number of levels.

The following extract suggests that stress associated with evaluative feedback was a feature of the volume of feedback received (Extract 4) the timing of that feedback and the number of points for action.

Extract 4 (Female)

“The feedback was very useful, sometime a whole A4 page was written down. He was helping me to improve...you can take constructive criticism and it’s good but if there is a lot of Information you’re not sure what to do with it” (INT5)

Extract 4 suggests that the student recognises the value of the feedback. She implicitly stresses that it is difficult to handle feedback that is not constructive. Too much

information serves to overwhelm the student. This is not surprising as the expectation is that students will put feedback and all the points raised during this exchange, into action. This can be difficult when they are not sure of what the next steps should be or simply unable to pinpoint the key points due to the quantity of information provided.

In addition 'how' the student 'hears' feedback and indeed interprets this form of verbal persuasion influence their adaptation to evaluative feedback (Extract 5).

Extract 5 (Male)

"I got crits in every lesson and there never seemed to be anything good that I did...the teacher would say are you surprised that lesson didn't work. I need to know that I did something right, I eventually just blocked it out and I couldn't even hear the good things that were then being said, if they were being said at all...I felt I wasn't good enough, and I questioned myself and got worked up at home wondering if I would pass"(INT B)

It is interesting to note that this student (Extract 5) felt that every lesson was a 'crit'.

He also implicitly highlights a need to be re-assured that he was 'doing something right'.

What is interesting about this extract is the student's response to evaluative feedback. His interpretation of evaluative feedback was that 'he never did anything good'. This led him through a process imbued with self doubt and increasing anxiety about successfully completing the placement.

5.3.15.2 Adapting to the Demands of Teaching

All student teachers encounter a range of demands within the placement context including managing workload and managing their classes. Each of these aspects of teaching are linked in that students generally talked of workload in terms of planning, preparing and evaluating lessons. Adapting to the demands of teaching entails student teachers being able to manage the workload associated with teaching, managing their classes and within

the class context managing behaviour. Managing workload was highlighted as a significant source of stress for the PG cohort. In general this dimension of teaching appeared to be a source of stress on the basis of time pressures, being able to fit in personal commitments and the levels of planning, preparation and lesson evaluation required during the time of the placement. This was in addition to university assignments. The issue of managing the volume of work and planning associated with teaching was a recurrent theme which PG students highlighted as a significant source of stress (See Extract 6). This suggests the postgraduate student teachers were experiencing a degree of role overload which is a recognised feature of occupational stress (Cooper et al., 2001).

Extract 6 (Female)

“I was in school sometimes until 9pm at night, the school were impressed but I was totally knackered as I leave at 730 in the morning. I had a hired car for travelling which meant if I stayed at school I got more done that way. I found planning for activities in which I had less content stressful although I did have prior experience in dance. I would read up on these activities but it was stressful.” (INT10)

This student (Extract 6) appeared to be working well beyond the school day. In some ways this could be counterproductive and possibly not sustainable in the long term. It is interesting that planning is primarily associated with ‘stress’ when this involves preparing for unfamiliar activities where the student feels she had ‘less content’.

The PG cohort experienced some aspects of managing their classes as stressful. In relation to class management sources of stress were related to concerns about ‘content knowledge’; ‘differentiation’; ‘adapting to different teaching styles’ and ‘managing pupil behaviour’. Content knowledge was an issue in general but specifically in areas where students were not comfortable or concerned about ‘safety’ such as gymnastics. In

addition, there was a perception that 'lack of content' was related to being a postgraduate as opposed to undergraduate student (Extract 7).

Extract 7 (Female)

"I think it is harder for us than the undergraduates because we don't really have that much content knowledge. That was probably the hardest thing. The school was quite good though."
(INT9)

In addition, students found 'organising and selecting appropriate content' and 'differentiating' to meet the needs of all pupils as a source of stress. This was especially apparent when they were teaching certificate classes such as standard grade or higher (Extract 8).

Extract 8 (Male)

"...I always stressed about his classes, especially because they tended to be more standard grade ones so I was much more worried about content and differentiation" (INT5)

The perceived lack of content associated with the postgraduate course was for one student a source of stress as this impacted on the level of departmental expectations they encountered during the placement (Extract 9).

Extract 9 (Female)

"I had a different type of stress on me because the department expected a very high level of planning because they knew that content was an issue with postgraduate students" (INT6)

As students develop their capacity to manage their classes and their pedagogical skills in general they draw on vicarious experiences (Bandura, 1997), which involve observing other teachers and learning from them. Within the context of this study adapting to different teaching styles was a source of stress for some students. This appeared to be

explained by variations in expectations of how the students 'should teach'. In addition, adapting to and meeting teachers' expectations of how best to teach was a source of stress (Extract 10).

Extract 10 (Male)

"What I think is the hardest thing is that your having to adapt your teaching style to style to how individual teachers want their class taught. Your own ideas on teaching are coming through but your kind of limited...and that adds a lot of pressure (INT12A).

A number of students did not express concerns about behaviour management. However, this tended to be a source of stress in schools described by students as 'deprived'; 'difficult' and 'challenging'. This was especially the case when the issues of 'behaviour' are coupled with concerns about impact on individual professional development (Extract 11).

Extract 11 (Male)

"It was a very deprived area and there were a lot of behavioural difficulties, compared to my first school, it was a different world. The first week was really tough I didn't think I was going to get through the 6 weeks to be honest...a lot of it was containment and supervision...my actual teaching and content were limited, for a one-year course, having 6 weeks where I had limited teaching, could be a problem later (INT21

All students are faced with the challenge of managing behaviour and this clearly varied from one school to another. However, when you add this to the demands of forming relationships with colleagues and pupils in a 'new' context and a burning desire to 'do a good job' (Extract 12) it is not surprising that students may find this as stressful.

Extract 12 (Female)

"I want to do a good job, but there's so much to learn and you just think can I do this and kids can test you. I had a couple of classes where pupils were quite disruptive. What are you supposed to do? Instead of having a few work colleagues to get on with you have to get one with all of these kids and everything is new"(INT 16).

5.3.15.3 Adapting to Expectations

In relation to stress associated with 'being a student' (Stress in Student Scale: SIS) postgraduate students, were significantly more stressed by issues pertaining to perceived efficacy, such as 'lack of status' and 'others' expectations'. This clearly impacted on individual students as they felt the weight of 'breaking down barriers' concerning their course (Extract 13) in addition to 'proving themselves as teachers'

Extract 13(Female)

"Being part of the PGDE is a big thing because there is a stigma attached. Your trying to prove yourself a wee bit more. You've got a point to prove and you have to show that you can cope okay with it. Your trying to break down a barrier that's there because the one year course is not liked everybody knows that..." (INT A)

The efficacy of the course in many ways rested on the performance of the postgraduate students. An intricate web of expectations underpinned the postgraduate students' perception of stress in teaching. This can be summarised as a series of reciprocal expectations of 'students of self'; 'teachers of students'; 'tutor of students' and at the apex of this, expectations of the actual PGDE course. Teacher expectations were seen to be variable (Extract 14), heighten those of the student (Extract 15) and it was clear that students were at times a little unrealistic in their own expectations of themselves (Extract 16).

Extract 14(Female)

" I feel better equipped as I learned so much from the school but I feel apprehensive about my confidence because I know it wasn't good enough for that school, but it might have been somewhere else... I can tell that expectations upon each student is different depending on which school you go to...my grade is going to be affected depending on what school I go to. If the school had lower expectations and standards I would get a higher grade..." (INT C)

Extract 15(Male)

“They (teachers) are spending a lot of time and effort on you in helping you and giving you advice so you want to reach their expectations. I think staff expectations have heightened my own expectations. I’m not very kind to myself, even if I had a good lesson...I’m always thinking what can I do better which is good but maybe too much, I’m never happy with a good performance”
(INT C)

This student implicitly highlights a desire to acknowledge the efforts ‘teachers’ invest in them by living up to expectations, and the positive influence this had on them. It is interesting to note that the student can see that benefits of driving themselves to ‘be better’ on one hand, and being too hard on themselves on the other (Extract 14).

Extract 16 (Male)

“I kind of assumed I should be teaching the same way that teachers teach and not how a student should be teaching...at one point I thought I was just going to pack I all in but the teachers sat me down and talked to me so that calmed me down a lot”
(INTA)...

When expectations are unrealistic they can place the individual under greater stress. The student teacher indicates they feel that they should be ‘teaching’ in the same way as their more experienced colleagues places a lot of pressure on themselves. It is interesting that his response to this pressure was to give up, and that simply talking to a colleague put things in perspective.

SUMMARY OF QUALITATIVE FINDINGS

The postgraduate students’ clearly perceived Performance Evaluation, Managing Workload, Class Management and issues pertaining to Perceived Efficacy as significant sources of stress during the time of this study. However, based on this qualitative analysis presented, it is suggested that perception of stress in teaching was defined at a number of levels, by a

process of adaptation. The postgraduate students' efforts to adapt to performance evaluation, adapt to the demands of teaching, and adapt to range of expectations during this time explained why teaching was perceived as stressful. Moreover that adaptation was dependent on how they coped with, or indeed, managed each of these dimensions of their teaching experiences. Their adaptation to the demands of teaching is judged on the basis of a cyclic process of observation-evaluation-feedback-reflection-action which is an integral part of learning to teach. The outcome of these transactions can impact on the extent to which the student teacher perceives teaching as stressful as well as providing a measure of their efficacy as teacher.

Student concerns regarding pedagogical skills such as content knowledge, differentiation and the challenges of managing pupil behaviour made adapting to the demands of teaching more stressful. In addition, students adapting to a range of expectations concerning how best to teach also played their part in making teaching more stressful. Time pressures, volume of work, and concerns about context knowledge suggested that students were experiencing a degree of quantitative and qualitative overload. It could be argued that this adaptation is certainly not unique to the postgraduate student teacher and subsequently does not explain the differences in perception between the postgraduate and undergraduate student cohort. However, it is suggested at this point that the issues of efficacy impacted on the postgraduate and their efforts to adapt to demands. In addition, efficacy issues also impacted on expectations at all levels. The most significant source of stress in terms of impacting on all students was related to the 'lack of status' afforded their course and the extent to which this shaped others expectations of postgraduate students and indeed students' expectations of themselves.

This resulted in the student not only having to adapt to all the demands of learning to teach, but also having to prove themselves and the efficacy of their course at the same time (See Figure 5.13).

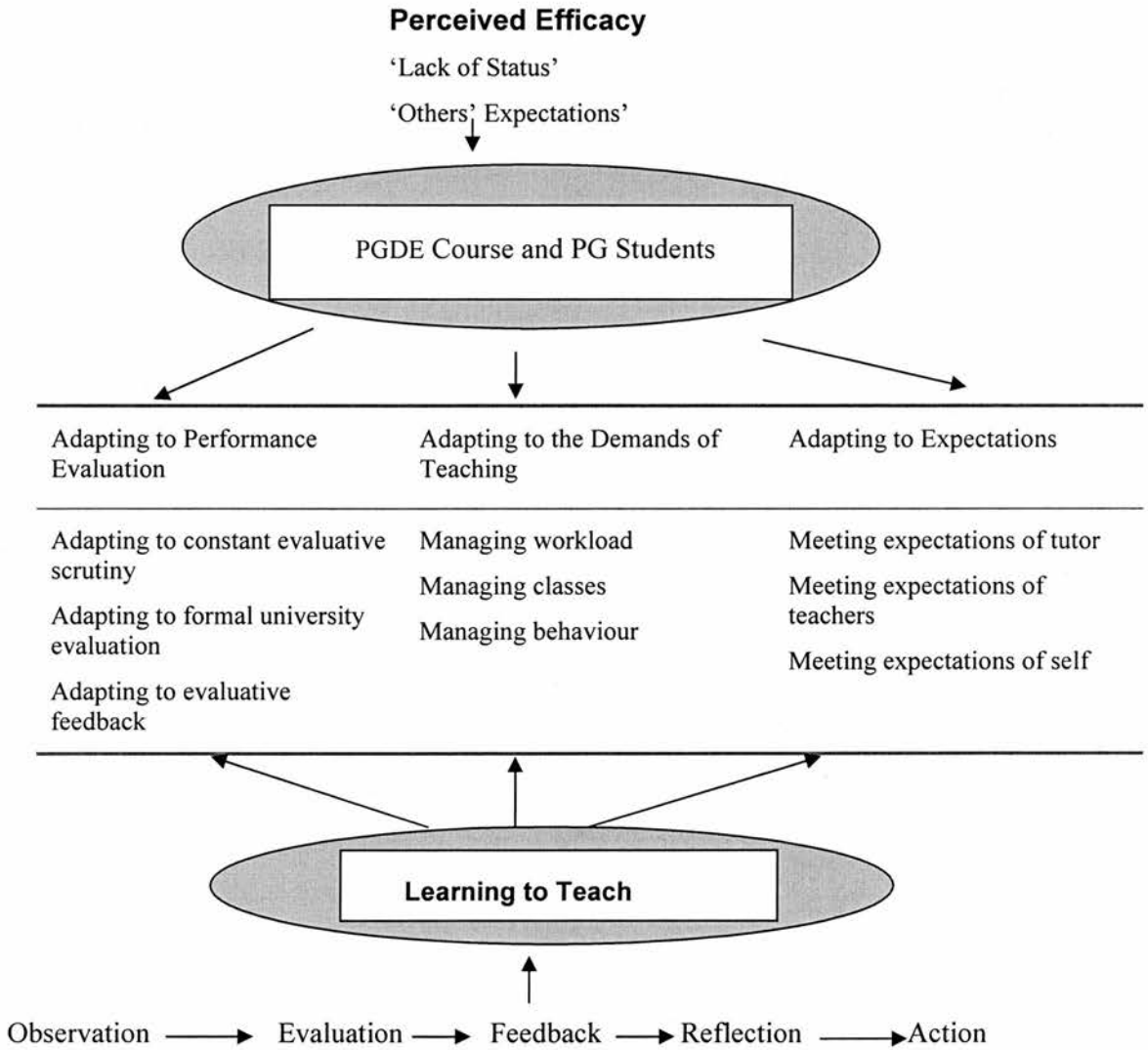


Fig. 5.13. Understanding Postgraduate Students' Perception of Stress in Teaching

5.4 DISCUSSION

5.4.0 INTRODUCTION

There are conflicting accounts of the extent to which the student teacher experiences the same levels of stress as their fully-fledged colleagues (Gorell, Bregman, McAllister & Lipscombe; 1980; Kyriacou, Hulgurten & Stephens, 1999). However there is a general consensus that stress among student teachers and indeed students in general, is a real phenomenon (Murray-Harvey, Sillins & Saebel, 1999; Millings-Monk & Mahmood, 1999; Pryjmachok & Richards, 2007). However, exploring the phenomenon of stress in teaching through the eyes of the ITE physical education student is a little problematic in that they are both a 'student' and 'teacher' at one and the same time. The demands of each role would obviously interact on student perception of stress in teaching. Nonetheless, it is possible that there may be some degree of similarity between student perception of stress in teaching within this Scottish context and that of the teachers who participated in Study 1 which was reported in the previous chapter (Chapter 4). However, the student experience of teaching *per se* differs from that of the fully-fledged teacher at a number of levels.

Firstly, as the student engages in the act of learning to teach they are immersed in a climate of constant performance evaluation. Secondly, their experiences of teaching are relatively short lived albeit intense. During their programme undergraduate students, complete one placement per year and this will range from 6 to 11 weeks in duration. In contrast, the postgraduate group complete three consecutive placements lasting four to six weeks during a one-year programme comprising 33 weeks of study. In addition, it would be expected that the significance students commonly attach to the teaching element of the

ITE programme (Capel, 1996, Clement, 1999; D'Rozario & Wong 1979; Locke, 1979; Morton, Vesco, Williams & Awender, 1997; Zeichner, 1993) and the evaluative climate in which they are immersed, would also influence student teachers' perception of stress in teaching.

The next section of this chapter places the main findings from the 'Student Teacher Study' within the context of literature in the field. Student teachers' general perception of stress in teaching is explored initially. Following this their perception of stress associated with teaching and being an ITE student, and the relationship between perception of stress in teaching and well being is examined.

5.4.1 GENERAL PERCEPTION OF STRESS IN TEACHING

Fifty-seven per cent of students generally perceived the profession of teaching as 'quite' 'stressful within this Scottish context. While a further 22 per cent indicated that the profession was 'very' stressful. However, it was interesting to note the extent to which teaching was generally perceived as stressful varied according to level of study. In effect differences in general perception of stress were observed between undergraduate and postgraduate students. In stark contrast to the group, almost 50 per cent of post-graduate students indicated that they perceived teaching as 'very' stressful.

In relation to this specific postgraduate cohort, these figures are higher, than the 46 per cent of undergraduate students who indicated that teaching was 'very' or 'extremely' stressful within the English context (Chaplain, 2008). Thirty-eight per cent of the undergraduate students in Chaplain's study cent also rated the placement aspect of their course as 'very' to 'extremely' stressful. In effect there was a difference between this group of students' general perception of teaching as stressful and their perceptions based

on experiences at the chalk-face. Teaching was not as stressful in 'reality' as they anticipated. While this comparison with the findings from Chaplain's study helps us to contextualise students' perception of stress in teaching within the Scottish context, these differences should be treated within some caution due to differences in the rating scales utilised. In the study reported in this chapter, if students perceived teaching as stressful the options available to them were 'quite' to 'very' stressful. In contrast, Chaplain's (2008) study used the options of 'very' to 'extremely' stressful. It is also worth considering the extent to which other factors in addition to experience at the chalk face may impact on our perception of stress within the profession. It is not inconceivable that student perception could also be shaped by the social representation of teaching (Jarvis, 2003) as a high stress profession and the impact of occupational socialisation (O'Bryant, O'Sullivan and Raudensky, 2000).

5.4.2 STRESS IN TEACHING

Student teacher perception of stress in teaching was measured by means of the Placement Concerns Questionnaire. This decision recognised the need for a measure to reflect the student teacher context specifically, rather than teachers in general (D'Rozario & Wong, 1996; Murray-Harvey, 1999). Overall student teachers perceived stress in teaching as four dimensional in nature: Performance Evaluation, Professional Interactions, Managing-Workload and Class Management. The group as a whole, found aspects of Performance Evaluation, Workload and Class Management as stressful but did not perceive Professional Interactions *per se* as particularly stressful. This dimension of teaching refers to communicating and interacting at all levels with pupils and significant others alike.

The main sources of stress for the group within Performance Evaluation, Managing Workload and Class Management were 'expecting too much from own performance'; 'being evaluated by university tutor'; 'balancing placement/personal demands'; 'writing detailed lesson plans'; 'managing the class and enforcing discipline' and 'helping pupils with emotional and behavioural problems'. Overall, these sources of stress are reflective of those identified in previous studies such as 'evaluation anxiety' (Capel, 1994) 'being observed, evaluated, and assessed by the school experience supervisor' (Capel, 1996); 'class management and class control' (Mawer, 1995); 'workload' and 'planning' (Murray-Harvey, 1999)

In line with Fullers' (1969) and Maynard and Furlong's (1993) theories of the developmental journey of teachers and research in the field (Hardy, 1995a) the stressors identified by students in this study could be broadly categorised as 'self' and 'task' concerns. Within this Scottish context, perception of stress in teaching appears to be a feature of self concerns pertaining specifically to performance evaluation. This was a significant source of stress for female students in particular. In relation to Performance Evaluation it is interesting to note that one of the main sources of stress was 'internal' in terms of living up to their own expectations. The other was ostensibly 'external' and related to being formally evaluated by the university tutor. A range of task concerns related to workload, planning and behaviour management were also significant sources of stress for students as a group..

When these findings were compared to two studies, which used the Placement Concerns Questionnaire within the Australian and Singaporean context, similarities were evident (Murray-Harvey et al, 1999). The Singaporean students perceived 'workload' as their main stressor whereas their Australian counterparts were especially stressed by 'having

high expectations of their own performance'. In effect one group found extrinsic demands as most stressful while the other found the internal demands they placed on themselves as their main source of stress. Similar to this Scottish group 'managing and enforcing discipline' was a main source of stress. In addition neither of these group or the Scottish students perceived 'communicating with significant others', which relates to Professional Interactions, as stressful.

Not surprisingly, and possibly as a result of the sample including student teachers at different stages in their professional development, there were difference in the extent to which teaching was perceived as 'stressful'. The postgraduate cohort in particular perceived all four dimensions of teaching as more stressful than the undergraduate groups. In line with all of the undergraduate groups they found aspects of performance evaluation as 'stressful'. However, class management and managing workload specifically were also perceived as significant sources of stress for the postgraduate cohort. Stress associated with workload may be partly related to the nature and intensity of the PGDE course. The postgraduate students' professional and personal skills have to be honed in a relatively short time within a climate of constant performance evaluation. When we consider the accelerated route this group take in their quest to become a teacher, the fact that they perceive teaching as stressful is not entirely surprising.

Within this study, sources of stress for student teachers appeared to be related to self and task concerns. It had been suggested that the student teachers need to 'survive' the demands of teaching (Behets, 1990) may result in their focus remaining on self and task concerns. In addition, it has also been concluded that degree of confidence and indeed mastery is required before student teachers can shift focus from self to learner (Capel, Leask & Turner, 1995). Moreover, the shift from self and task concerns to impact

concerns may not simply be a feature of developmental stage it may also be associated with time to consolidate practice and the context in which the student teacher is situated (Capel, Leask & Turner, 1995; MacLean, 2007). The postgraduate student may not have time on their hands in that they only have 33 weeks in total in which to meet the requirements to progress into the first year of their teaching career (Induction). However, the fact that they engage in concurrent placement provides them with the opportunity to consolidate practice relatively quickly after each placement.

5.4.3 STRESS ASSOCIATED WITH BEING AN ITE STUDENT

In relation to stress associated with simply being an ITE 'student', participants did not perceive issues pertaining to Course Demands, Perceived Efficacy, Personal-Professional Interface or Perceived Support as significantly stressful. Nonetheless the main sources of stress within these aspects of student life were 'assignments' and 'exams'; 'lack of status' and 'others' expectations; 'finances' and 'balancing family/other commitments'; 'lack of academic support' and 'availability of course materials' respectively. Broadly speaking these findings reflect the general trends identified within a range of studies (e.g., Kippijing, 2000; Millings-Monk & Mahmood, 1999; Parkes, 1990). In particular, one study conducted in the Scottish context also identified issues relating to 'course demands' and the personal-professional interface such as 'finances' as sources of stress (Millings-Monk & Mahmood, 1999). There is a general consensus that stressors associated with being a student can be classified as academic, personal and social (Pryjmachok & Richards, 2007) and in the case of ITE students 'clinical' or 'placement' stressors would be part of the aetiology of student stress.

Although students in general did not perceive any dimension of being an ITE student as stressful this did differ in relation to level of study and gender. Postgraduate students were significantly more stressed by issues pertaining to Perceived Efficacy such as 'lack of status' and 'other's expectations' than the undergraduate cohort. The sources of stress pertaining to Perceived Efficacy would obviously sit alongside those pertaining to Performance Evaluation, Managing Workload and Class Management. It may be that the interaction between these dimensions of teaching and being a student contributed to the postgraduate students' perception of teaching as 'stressful'. Interestingly, female students generally found course demands such as 'exams' and 'assignments' significantly more stressful than their male counterparts.

5.4.4 RELATIONSHIP BETWEEN STRESS IN TEACHING AND WELL BEING

The group in general did not report any significant changes in their levels of well being during the time of this study. This was as expected when we place these findings alongside the groups overriding perception of teaching as 'quite' stressful' and student life as generally not stressful. Nonetheless 40 per cent of students had felt under constant strain in recent weeks. While a smaller but significant proportion had experienced a loss of confidence, feelings of being overwhelmed and less able to socialise and enjoy everyday life. These finding was similar to those of Millings-Monk & Mahmood (1999) who reported that 'feeling under constant stress' and 'overwhelmed' were the main problem experienced by students within the Scottish context, during the time of their study. When students' well being was compared to a general and clinical population respectively, it was clear that there well being was not compromised during the time of this study. However, 26 per cent of students did experience changes in their well being which would

warrant therapeutic intervention. This figure is similar to that reported in a study, which explored stress and well being in relation to dental students (Newbury-Birch et al., 2002). However, it is well below that reported by Jones & Johnson (2000) who observed that 60 per cent of student nurses experienced significant levels of affective distress during their first nursing placement. Within the context of this study the proportion of student teacher experiencing significant changes in well being is considerably higher than the 14 and 16 per cent normally associated with a general population (Goldberg & Williams, 1988). However, a figure of around 30 per cent is believed to be in line with what would be expected in general student populations (Prymachok & Richards, 2007).

Thirty per cent of students within this Scottish context had also experienced similar problems as the Scottish clinical population in relation to levels of tension. Moreover, one-fifth of the group had experienced similar problems pertaining to 'loss of control'. This 'loss of control' may be linked to the fact that significant others will decide their efficacy as teacher, which can lead to the student teacher feeling they do not have ownership over this part of their professional development (Head et al, 1996; Daniels, et al., 2006). In the Teacher Study (Chapter 4) it was clear that when teachers perceived 'teaching' as stressful they also reported significant changes in well being. Therefore it was surprising to find that around 30 per cent of student teachers in this study, had experienced significant changes in well being when the group perceived teaching as 'quite' and not 'very' stressful. However, differences in perception of well being in relation to level of study, explained this anomaly.

Perception of well being varied according to gender and level of study within ITE. The impact of level of study on stress and well being had previously been highlighted in Newbury-Birch et al (2002) study of dentistry students. Female participants within this

Scottish context experienced significantly higher levels of tension than their male counterparts. This is especially interesting in light of the fact that female students also perceived Performance Evaluation associated with teaching and Course Demands associated with being an ITE student as significantly more stressful than their male counterparts. The BEd4 group and the postgraduate cohort, who were nearing the end of their developmental journey as a student, experienced significantly greater levels of change in relation to Personal Ineffectiveness, Depression, Anxiety and Loss of Control. In relation to the BEd4 group changes in well being were not attributed to 'stress in teaching'. It is suggested that this may have been a result of fact that they were in their final year of study and during placement were also conducting a major research project as part of their undergraduate degree course.

In contrast to the BEd4 group postgraduate students, were significantly stressed by the Performance Evaluation, Managing Workload and Class Management dimensions of teaching, and issues of Perceived Efficacy within their student life. Therefore, it is not surprising that this specific group of students' experienced a greater decline in well being. Initial findings suggested that it was being a 'student teacher' and not necessarily a student that was the main source of stress for the postgraduate cohort. These findings are in contrast to Prymachok & Richards (2007) study of student nurses. It may well be that these findings indicate that coping with the demands of a PGDE course (Hardy, 1995b) were stressful for these students. However, the manner in which the postgraduate cohort described their experiences of teaching indicated that the interaction between dimensions of teaching and being a student clearly impacted on their general perception of teaching as 'very' stressful.

5.4.5 POSTGRADUATE STUDENTS PERCEPTION OF STRESS IN TEACHING

It is clear that stress can be positive (Seyle, 1983) in terms of being a challenge and a motivating force, which drives the student teacher to successfully meet the demands of learning to teach. However, the focus within Phase 2 of the study was to find out why postgraduate students found aspects of 'teaching' and 'being a student' as significant sources of stress. It is clear student teachers in general have to meet the professional demands of teaching with a climate of constant performance evaluation (Boyle, Riding & Falzon; 1991; Kyriacou, 1987). However, when postgraduate students 'talked' about their experiences it was evident that it was their 'adaptation' to performance evaluation, their 'adaptation' to the demands of teaching, and their 'adaptation' to a range of expectations, which shaped their perception of stress in teaching.

Adapting to Performance Evaluation

Within the context of this study it was not surprising to discover that Performance Evaluation was a source of stress as previous studies have highlighted 'evaluation anxiety' or correlates of evaluations such as 'fear of failure', as common to the experiences of student teachers (Capel, 1994, Capel 1996; Murray-Harvey, 1999). The fact that student teachers' strive to meet the many demands of teaching such as managing workload and their classes while being constantly evaluated by peers, pupils, teachers, on occasions the university tutor and indeed themselves (Boyle, Riding & Fazloni, 1991, Kyriacou, 1987) may explain why evaluation in general is stressful (Head, Hill & MacGuire, 1996). Especially when we consider that student teachers see the teaching placement as the most significant element of their ITE course (Locke, 1979; Morton,

Vesco, Williams & Awender, 1997). The formal university evaluation is cited as a significant stressor in a range of studies (e.g., Capel, 1996; Murray-Harvey, 1999; Head et al., 1996) and this was no different for these postgraduate students. It is worth noting that during the formal university evaluation, three evaluators namely the tutor, teacher and pupils are present. Within the context of this study, students did adapt to teachers evaluating them but the number of tutor visits may have compromised their adaptation to the university evaluation. Although the postgraduate student would have generally had five formal university evaluations in the course of their programme this would normally be with different tutors and of course in different placement contexts.

The level of stress associated with this formal evaluation was linked to how students felt about the tutor visit, how the tutor conducted the evaluation and how the student responded during the time of the evaluation. The formal visit was seen as something to 'get over' and all students perceived this event as stressful. Although it was acknowledged that the 'anticipation' of this evaluation was often worse than the actual event. Students were especially concerned that the tutor would not take their (placement) context into consideration or their progress to date as a teacher. At the heart of the student concerns with this evaluation was a desire to do their best. At times this was exacerbated by the way in which they responded during the evaluation. For example some students clearly described how they constantly ruminated about what the tutor was writing during the evaluation. In addition, they would take this, as something was wrong and then worry about how they could fix this. On the other hand students found that when they focussed on the pupils and their responses to their actions, they were able to 'block out the tutor'. This reduced the levels of stress experienced and in some ways indicates a shift too 'impact' as opposed to 'self' and 'task' concerns. It could however, be argued that

students who were able to adopt this approach had perhaps developed a sense of mastery and confidence that facilitated this shift (Capel, Turner, Leask, 1995).

Adapting to evaluative feedback in general was also a source of stress for the postgraduate cohort. This form of evaluation could be considered as a form of verbal persuasion as defined by Bandura (1997), which is deemed as crucial to the students' development (MacDonald, 1993). In the context of this study 'verbal persuasion' generally associated with teacher feedback was clearly valued but perceived as 'stressful' at a number of levels. Based on issues of timing, volume and student perception of their ability to take on board points for action, feedback at times was stress-inducing. Partly, this was related to how we present feedback to students but at another level 'feedback' was stressful when linked to the students' level of confidence in their ability to 'get it right' and/or their feelings of being overwhelmed. Within this evaluative process verbal persuasion in the form of evaluative feedback and vicarious experience such as 'observing' how teachers 'teach', play a key role in the students' development as teacher. It is argued that each of these components of learning to teach can impact on self-efficacy (Bandura, 1997).

Adapting to Demands of Teaching

If we consider 'evaluation' as an ever present entity it is perhaps easier to understand why issues concerning 'managing workload' and 'class management' would be a source of stress for these students. In many ways managing workload could impact on class management in terms of the extent to which the student could meet the preparation and planning demands that would in turn enable them to effectively managing their classes in terms of organising and delivering appropriate 'content'.

Stress associated with 'managing workload' was clearly related to role overload (Cooper, Dewe & Driscoll, 2004) in terms of the volume of work pertaining to planning and evaluating lessons and the time available for this which are a feature of quantitative overload. At the same time, there was evidence to indicate that 'qualitative overload' was a factor in the generation of stress associated with managing workload and class management. Student concerns pertaining to planning & preparation, their 'content knowledge' and indeed ability to 'differentiate' that content effectively, was a source of stress as was managing pupil behaviour. Postgraduate students within the English context had previously reported each of these dimensions of teaching, which would be considered as 'task' concerns, as stressful. Reflecting on these findings Hardy (1995) intimated that this might be as a consequence of being part of a primarily school based course. In another study Hardy (1995) highlighted that among other factors such as 'learning how to teach and work with pupils' the main concerns of postgraduate students were linked to 'adapting to being a teacher' and 'coping with the demands of the postgraduate course'

Adapting to Expectations

Interestingly, issues relating to Perceived Efficacy such as 'lack of status' and 'others' expectations' significantly stressed the postgraduate students. It would be safe to assume that this combination of factors would impact on their efforts to cope with the demands of their course. Moreover, it would be very difficult to argue that issues pertaining to Perceived Efficacy such as 'lack of status' and 'others' expectations' would not contribute to their perception that teaching was generally very stressful.

The 'lack of status' associated implicitly and at times explicitly with the PGDE course was an ongoing and ever present facet of the postgraduate student teachers' experiences

of teaching. At one level, students entered into a personal quest to prove the worth of the course and this became stressful when coupled with a desire to prove themselves as teachers at one and the same time. Students were acutely aware of issues concerning the lower status of the PGDE course in relation to the long established undergraduate course. In part this was a feature of implicit messages, explicit messages and anecdotal evidence. Nonetheless it is evident that to some extent this consensus shaped the students' expectations of teaching *per se* and others expectations of these students. A number of factors relating to expectations contributed to student perception of teaching as stressful.

More was expected of students in terms of planning, as there was a belief that they lacked sufficient content knowledge. Students acknowledged the benefits of having very high expectations of themselves, and striving to meet the high expectations of teachers, at times unrealistic expectations were a source of stress. In particular when students were expected to be the 'finished article' by others and/or themselves this added to their perception of teaching as 'stressful'.

When we consider that 'meeting expectations' and battling to 'prove the course' lies at the centre of the postgraduate student experiences of teaching it is not surprising that they find teaching as stressful. Their general struggle with issues of 'efficacy' adds another layer to stress within teaching. In effect the postgraduate students' efficacy, confidence and mastery in terms of effectively managing workload and their classes, rest on the precipice that is performance evaluation. This does not imply that students in general do not grapple with the demands of performance evaluation and indeed issues of efficacy and confidence. However the findings of this study clearly indicate that postgraduate students' perception of stress in teaching were compounded by preconceptions about the status of the PGDE course, which indirectly may have impacted

on their feelings of personal and professional efficacy, confidence and perception of stress in teaching. The underlying concerns about the 'lack of status' associated with this newly introduced mode of 'learning to be a P.E teacher' may have been compounded by the historical and contemporary rhetoric (Evans, Penney & Davies, 1996; Fitzclarence & Tinning, 1990; Houlihan, 1991; Stroot et al., 1994) concerning the status and marginalisation of physical education. For a group of professionals who have lived the reality of a low status subject this may have been perceived as a further threat to their credibility.

5.4.6 CONCLUSIONS

As a group students generally perceived teaching as 'quite' stressful'. In particular they found issues pertaining to 'Performance Evaluation', 'Managing Workload' and 'Class Management' 'stressful'. The main stressors pertaining to these specific aspects of teaching were 'expecting too much of their own performance', 'managing overall workload' and 'managing the class and enforcing behaviour'. The everyday professional interactions associated with teaching such as communicating with colleagues and pupils were not seen as stressful. Gender and level of study impacted on student perception of stress in teaching. Female students perceived issues pertaining to performance evaluation as significantly more stressful than their male counterparts. Almost fifty per cent of postgraduate students generally perceived teaching as 'very' stressful. In addition, postgraduate students perceived all aspects of teaching as more stressful than their undergraduate counterparts. Moreover, they found 'managing workload' as significantly more stressful. Students in general did not perceive any dimensions of student life such as course demands, perceived efficacy, personal-professional interface or perceived support as particularly stressful. The main stressors pertaining to these specific facets of student

life were 'fitting everything in'; 'lack of status'; 'flatmates' and 'lecturers attitudes'. However, gender and level of study had an influence on student perception of stress associated with student-life. Female students were significantly more stressed by aspects of 'performance evaluation' within the teaching context and 'course demands' within the ITE student context. In contrast to the group, where students generally did not perceive any dimension of 'being a student' as stressful, the postgraduate group found issues pertaining to 'Perceived Efficacy' such as 'lack of status' and 'others' expectations' as significantly more stressful.

Around 40 per cent of students had 'felt under constant strain' during the time of their placement experience while one-fifth of students were less inclined to socialise. In addition, just less than one-fifth of students had experienced a decline in their normal levels of confidence. In general student perception of well being was similar to what would be expected within a general population. However, 26 per cent of students had experienced significant changes in their normal levels of well being. In addition, thirty per cent of students experienced levels of tension normally associated with a clinical population. Moreover one-fifth experienced significant problems in relation to 'loss of control'. 'Managing Workload' and the 'Course Demands' associated with teaching and being an ITE student respectively had the greatest influence on the extent to which changes in well being were reported. At the same time student perception of issues pertaining to Perceived Efficacy also significantly influenced well being. Of these three predictors of well being postgraduate students reported both managing workload and perceived efficacy as significantly more stressful.

Postgraduate students' perception of stress related to 'performance evaluation' was influenced by their adaptation to performance evaluation, adaptation to the demands of

teaching and adaptation to expectations in general. This was exacerbated by a climate of constant evaluative scrutiny, evaluative feedback and formal university evaluations. The cycle of planning, preparing, delivering, and evaluating lessons was the key factor related to managing workload. Stress pertaining to class management was related to concerns about content knowledge, differentiation and adapting their teaching style to fit in with others expectations and/or experience. In addition, concerns regarding behaviour management also contributed to perceived stress within 'class management'.

In relation to Perceived Efficacy, stress was a feature of a perceived 'lack of status' and 'others' expectations' associated with the PGDE course in particular. This influenced the expectations others' had of the postgraduate students and also influenced their expectations of themselves. In effect these students felt they had to prove themselves as teachers in addition to proving the 'worth' of the course. The postgraduate perception of teaching as 'very' stressful was attributed to adapting to an evaluative climate and concerns regarding content knowledge, the challenges of differentiation and adapting their teaching style in line with the range of class teachers they worked with during placement. In addition, managing pupil behaviour and overall workload contributed to their perception of stress in teaching. However, these tangible sources of stress were underpinned by stress associated with the perceived 'lack of status', of the PGDE course. These preconceptions implicitly and explicitly impacted on students as they entered the teaching arena in that they felt a need to 'prove the course' as well as proving themselves as 'teacher'.

5.4.7 LIMITATIONS

As always the use of self-report questionnaires are a potential limitation in that they can influence the extent to which responses accurately reflect participants' views. Also the fact that some participants elected not to participate could reflect a degree of 'volunteer' bias. In addition, the timing of the administration of questionnaires could be an issue. To ensure responses accurately harnessed participants immediate perception of stress in teaching questionnaires were administered as soon after their placement experiences as possible. While this was appropriate this meant that students were at different points in terms of completing their student year. For example the postgraduate cohort, BEd2 and BEd4 undergraduate students could reflect on stress associated with being a student based on the totality of their experiences. On the other hand the BEd3 group had only experienced the placement part of their course to date.

5.4.8. FUTURE STUDY

This study has served to identify a range of dimensions of teaching and student life, that impact on perception of stress in teaching. It would be important to explore further the reasons why female students in particular found the performance evaluation associated with teaching and the demands of the ITE course as significant sources of stress. A number of issues were significant in that if they are addressed they could positively enhance practice within ITE and reduce levels of student stress during the placement experiences in particular. It is clear that steps require to be taken to find ways of reducing levels of stress associated with performance evaluation and facilitating the postgraduate students adaptation to the many demand of learning to teach. That may involve a period

of reflection of what we can do as tutors. In addition, practical strategies require to be implemented into the course to enable students to cope with evaluative stress. In terms of future study it is clear that student experience of stress in teaching is variable. Findings from this study while primarily focussed on exploring stress in teaching by identifying sources of stress did uncover a number of factors which could help to reduce level of stress during the teaching context.

One was related to how the student manages or copes within stress in teaching, the other was specifically related to the way in which context can impact on that perception. The final study reported in this thesis considers these factors by exploring the postgraduate physical education students' perception of coping and context in addition to their perception of stress in teaching and as they make the transition into and through their induction year.

Note: while this study incorporated a qualitative dimension (Phase II) this was intended to facilitate a provisional exploration of key findings arising from the quantitative phase (Phase 1) of the study. The researcher would have preferred to have a greater balance between quantitative and qualitative methods this was not possible due to time constraints (and word count). In addition, as the study utilised a range of survey instruments and generated multi-data sets these had to be validated, examined to identify underlying structures and then interpreted effectively. The balance therefore shifted to a predominantly quantitative study in which qualitative methods (Interviews) were conducted to provide a means of method triangulation and in addition, enable a better understanding of significant quantitative findings. This was also the case within Study 3 (Chapter 6) in which email interviews were conducted.

CHAPTER 6

STUDY 3--: INDUCTEE TEACHERS' PERCEPTION OF STRESS IN TEACHING

6.0 INTRODUCTION

This final study follows the postgraduate physical education cohort who participated in the study reported in Chapter 5, as they make the transition into and through the induction year. This chapter comprises four sections. Section 6.1 places the inductee teachers' perception of 'stress in teaching' within the Scottish context by providing an overview of research related to stress in teaching during this transitional period of the young teachers developmental journey. Coping and professional context are also explored in relation to stress in teaching. In addition, the research questions that underpin the study reported in this chapter are delineated. Section 6.2 provides an overview of the methodology adopted within this study. At this juncture the research design fully embraces the interactional model of stress by acknowledging that to fully understand perception of stress in teaching we must take cognisance, of how the individuals copes with 'stressors' and, how they perceive the professional context in which they are situated. Section 6.3 presents the study's main findings. Finally, section 6.4 comprises a discussion which places findings within the context of research in the field.

6.1 THE NATURE OF STRESS AMONG INDUCTEE TEACHERS

The Student Teacher enters the first year of their teaching career, commonly known as the induction, with a mixture of enthusiasm, anticipation and often uncertainty. This transition from student to inductee teacher can place the newly qualified teacher in a particularly vulnerable, stressful (Mawer, 1995), isolated (Bleach, 1998) and at times anxiety inducing (Tickle, 1994) position. For some this transition becomes a step too far and consequently their initial enthusiasm for their

chosen profession can quickly dissipate. During this time some may even choose to leave the profession (Goddard & O'Brien, 2003). The issue of 'retaining' newly qualified teachers (inductees) has been an area of concern for quite some time (White, Gorard & See, 2008). A range of possible reasons for the attrition of Inductee Teachers have been cited. These include a gap between their expectations and the reality of teaching (Chambers & Roper, 2000); the demands of workload; excessive paperwork; a lack of fit between salary and lifestyle; dealing with persistent misbehaviour to concerns over the lack of status afforded teachers by wider society (Menter, Hutchings & Ross, 2002).

It is well documented that the transition from student to inductee teacher can prove particularly traumatic for the Newly Qualified Teacher (in the Scottish context Inductee Teachers) as they take on sole responsibility for their own classes in terms of managing teaching, learning, evaluating, assessing and reporting on the progress of pupils (Cairns & Brown, 1998). For others leaving constant performance evaluation behind and being able to establish their own teaching style is a welcome relief (Mawer, 1995). The 'reality shock' (Huberman, 1993) believed to be experienced by the inductee teacher as they adapt to life at the 'chalk-face' presents a range of personal and professional challenges. Interestingly research conducted by Gorrell, Bregman, Mcallister and Lipscomb in 1980, disputes the notion of 'reality shock'. What they found was that the NQT did not experience significantly higher levels of stress than their experienced counterparts. It is not entirely surprising that there appears to be some doubt about the extent to which the induction period is stressful. Inductee Teachers may find themselves at different points in their developmental journey (Maynard & Furlong, 1993) as well as being situated in a range of teaching contexts.

As they enter the induction, it is reported that a desire to 'survive' (Huberman, 1993) underpins the Inductee Teachers' initial foray into the world of teaching and that the

induction is marked by a process of discovery. Within this 'uncertain' and relatively 'unknown' context the inductee also has to negotiate a myriad of relationships and interactions. Part of the unknown may be related to how they will appear to significant others such as colleagues and pupils at both a professional and personal level. Nonetheless, prior to entering the teaching profession inductees are expected to:

“...acquire a sophisticated range of knowledge and skills before they take up their teaching posts. They need a good knowledge of the subjects they are to teach, a confident grasp of a range of teaching methods and sufficient knowledge of child development and school organisations to make an effective start to their careers” (Cairns & Brown, 1998, p. 341)

The induction period is that transitional time, or perhaps twilight zone in which young teachers consolidate and build on this body of knowledge in the hope that they earn their 'rite of passage' to 'fully fledged teacher'.

6.1.1 THE SCOTTISH CONTEXT

For the first time in August 2002, teachers entering their first year of teaching within the Scottish context were assured of a one year induction post as opposed to entering the supply chain, where they competed for jobs with established teachers (Clarke, Matheson, Morris & Robson, 2004). For some time the existing system, which saw newly qualified teachers move, from school to school, had been criticised. This was due to the lack of stability and progression this afforded the new teacher. Especially at a time when this was crucial to their continued development. This development was part of the implementation of the McCrone Report (2000) which saw changes in the pay and conditions of teachers in Scotland. McCrone made no secret of the fact that his findings indicated that the induction of new teachers into teaching in Scotland was nothing short of scandalous. It has also been noted that many new teachers 'were lost to teaching' in that they sought other employment during this time (McNally, 2002, p. 150). The main rationale behind the induction scheme was to ensure that the

inductee was afforded a structured and consistent experience during their initiation into the profession. This level of consistency is considered crucial during this formative time (Calderhead & Lambert, 1992).

On entering the induction year within the Scottish context the newly qualified teacher is committed to class teaching for 70 per cent of their time while one and a half days per week are ringfenced for continued professional development. At the same time each inductee has a named mentor within their own subject department who has ten per cent of their time allocated to this role. Interestingly, a recent study by Clarke, Mathieson, Morrison, Morris and Robinson (2004) highlighted that 21 per cent of mentors within the Scottish context, did not feel the time allocated to support the inductee was sufficient to provide what they felt was the correct level of support during this time. For example, mentors experienced difficulties in fitting in monthly observations of the inductee teachers' progress. Consequently, this formative opportunity became reduced to a summative assessment designed to gauge the extent to which the inductee had achieved the Standard for Full Registration as a teacher (General Teaching Council Scotland, 2005).

Morran, Dallat and Abbot's (1998) exploration of induction within Northern Ireland also observed that the pressure of time impacted negatively on the inductee teachers' experiences of support. In addition, the induction process was constrained by a lack of clarity about the role of mentor. Moreover, there were concerns that the induction experience was somewhat compromised when inductee teachers were used to 'fill in' for absent colleague. While some of these constraints are similar to those experienced in the Scottish context, it is generally agreed that the Teacher Induction Scheme (TIS) in Scotland is a major success. The TIS is considered to provide very good preparation for inductee teachers, which enables them to achieve the Standard for Full Registration as a teacher and successfully make the transition to fully fledged teacher (Clarke et al., 2004, p. 7.). The TIS appears to have brought stability and support to

the induction process within the Scottish context. However, it is interesting that some teachers' entering the profession before the introduction of this scheme felt that the breadth of experience and diversity which can be a hallmark of the supply chain, enriched their experiences (McNally, 2002). It is indisputable that the induction scheme in Scotland has the potential to provide stability of experience for the inductee teacher but it important that we consider two factors. First, the nature of every inductees experience will be different and that stability, and indeed support , may be dependend on the good will of teachers and the nuances of the individual professional context (Mulholand, 2004). Secondly, time will tell if the formative experiences offered within the induction year, will provide a foundation that ensures the young teacher can withstand the uncertainty of the post induction experience.

6.1.2. STRESS IN TEACHING: THE INDUCTEE EXPERIENCE

Within the Scottish context there is only a matter of two months (June-August) separating student teachers from their induction. Therefore, it would not be surprising if the inductee teachers' perception of stressors associated with teaching during the induction is very similar to those reported by student teachers in Study 2 (Chapter 5). Inductees in a range of contexts have reported the following as sources of stress: 'class management'; 'preparation'; 'fitting into their new school context' (Morran et al.,1998), 'motivating pupils'; 'worload' (Kyraicou & Kune, 2007) and ensuring that they are able to 'differentiate' content to meet a diverse range of needs (Bleach, 1998). Overall these stressors could be classified as 'intrinsic' (Jarvis, 2003) to the job of teaching, and based on the developmental concerns of teachers it appears that these are generally related to self and task concerns (Fuller, 1969; Maynard & Furlong, 1993). In addition, it has been highlighted that inductees often remain in 'survival mode' and fail to progress beyond immediate concerns as they strive to fit into and meet the demands of their new context (Huberman, 1993). However it has also been suggested

that feelings of isolation can be a hallmark of the inductee experience. Moreover, a study conducted within the Irish context, concluded that the inductees' levels of anxiety and isolation were heightened by the absence of a formal induction scheme (Bleach, 1998, p. 58). Bleach seems to make the assumption that the absence of a formal induction is equated with a lack of support. The inductee teachers' professional development, is to some extent, shaped by the myriad of informal and formal interactions they have with their more experienced colleagues. However, to ensure a consistent level of support for inductee teachers it is generally agreed that this experience requires to be formalised (Bleach, 1998, Clarke, et al., 2004; McCrone, 2000; Morran et al., 1998). Within the Scottish induction context, mentors indicated that students were generally well prepared to join the induction scheme although undergraduate students were perceived as better prepared than postgraduate students. In addition, mentors reported that students were least well prepared to cope with the demands of the everyday 'management' and 'organisation of pupils' as well as the actual 'workload' (Clarke et al., 2004).

Support within the induction is believed to comprise of *internal* support by schools and departments, and *external* support by local authorities (Morran et al., 1998). Interestingly, when Goddard and O'Brien (2003) followed newly qualified teachers into the 'induction' within the Australian context, they reported that almost one-third had considered leaving after eight months. Moreover it was concluded that coping with workload was a factor in this decision. However a lack of professional support within an 'emotionally demanding' context was cited as one of the main reasons for this group leaving the profession. Research specifically pertaining to the field of Physical Education within the USA highlights the link and interplay between induction and five types of occupational socialisation: societal, sport, professional, organisational and bureaucratic (Lawson, 1991). When Stroot, Faucette & Schwager, 1993 reviewed three such studies a range of issues, were identified as potential

barriers to an effective induction into the profession. Reality shock as detailed by Veenmann (1984) was a real issue for the physical educator as they encountered differences in their philosophies and that of their colleagues. Faced with conflicting perceptions of what it is to teach P.E the 'wash out' effect (Zeichner & Tabachnik, 1981) was apparent in that inductees relied less on their ITE course. Inductees were aware of implicit messages such as 'do not rock the boat' (p. 378). In addition, the marginalisation, low status of their subject, issues of role conflict and isolation were features of their specific teaching contexts. Role conflict resulted as they attempted to balance the competing expectations of teaching and coaching. Isolation was considered to be more of an issue in practical subjects such as P.E when teachers were in small or single teacher departments. Within the Scottish context, this is not normal practice although isolation may occur when the inductee fully immerses themselves in the formal and informal dimensions of teaching P.E. Time spent teaching, coaching and planning could in this case limit the opportunities for personal and professional interactions with colleagues.

6.1.3 STRESS IN TEACHING (PHYSICAL EDUCATION)

Teachers of physical education are subject to the same demands and stressors as teachers in general. However, in Study 1 (Chapter 4) no differences in sources or levels of stress were apparent in relation to subject taught within the Scottish secondary school context. However, international research into stress and burnout within the physical education (P.E.) profession (e.g., Al-Mohannadi & Capel, 2007; Fejgin, 2005) has alluded to the distinctive demands of teaching a practical subject such as P.E which historically has been marginalised (Hendry, 1986) and considered low status within education and society at large (Armour & Jones, 1998). Moreover, issues of lack of status and recognition have also been shown to significantly impact on levels of burnout (Sarros & Sarros, 1987).

Within the Scottish context secondary schools deliver certificate P.E for middle and senior school and in addition, all pupils participate in 'core' PE either once or twice a week. Classes are generally mixed ability, co-educational and/or single sex and range from practical class sizes of 20 to 33. It is common practice for teachers of PE to provide a range of sporting extra-curricular activities out with the formal curriculum. This involves working beyond the school day and often at week-ends. As part of their professional development it is not uncommon for P.E teachers to take on additional responsibilities such as form teacher, guidance teachers and sports co-ordinators. It could also be argued that the role of the P.E. teacher is unique in terms of class structure, adopting the dual roles of teacher and coach, teaching in different indoor and outdoor environments, increased challenges of managing discipline within this unique context, the dependence of facilities and equipment, the need to adapt teaching to different weather conditions and a responsibility to ensure pupil safety (Smith & Wei Leng ,2003, pp192-3).

In contemporary times within the Scottish context the secondary school P.E teacher is charged with preparing pupils for exams, encouraging maximum participation in core P.E, providing an inclusive experience for all, ensuring the success of their school team while working to ensure the health and fitness of their young charges. With the drive to ensure all schools in Scotland are Health Promoting Schools by 2007 (Learning Teaching Scotland, 2004), concerns about rising obesity rates in Scotland and Great Britain (Jebb, Rennie & Cole, 2003) an evolving ethos of life-long activity/learning (SEED, 2003) , the implementation of the assessment is for learning initiative(Hayward, Priestley & Young, 2004) and the alignment of P.E with Health and Well Being within the rationale for the Curriculum for Excellence (SEED, 2004), it is not surprising that the role of the P.E teacher appears somewhat ambiguous.

The issue of role ambiguity and role conflict have been linked to teacher stress and job satisfaction. Role ambiguity can arise if the P.E teacher is unclear about what the

school and department expect of them. If expectations are unrealistic this can lead to role overload as the teacher's resources are stretched to capacity. Role conflict would arise when meeting one set of expectations resulted in the teacher not being able to meet other demands (Koustelios et al., 2004), such as teaching and coaching commitments. Within the Greek context role ambiguity and role conflict were identified as significant predictors of physical education teachers' levels of job satisfaction. Koustelios et al., (2004) attributed the high levels of role ambiguity experienced by Greek P.E. teachers to the variability in expectations and working environments experienced as a consequence of moving between short term contracts on a regular basis. Within this Greek context no formal framework was provided to clarify job descriptions, evaluation criteria and expectations of the teacher (p. 4).

In addition to role ambiguity and role conflict generic stressors such as 'workload'; 'pay structure'; 'career opportunities'; 'problems with administration'; 'pupils' problems'; 'working conditions' and 'paperwork' have also been cited as sources of stress for the P.E. teacher in studies conducted in Qatar (Al-Mohannadi & Capel, 2007), Greece (Koustelios & Tsglis, 2005), Singapore (Smith & Wai Leng, 2003) and Israel (Fejgin, Talmor & Erlich, 2005). However, additional stressors which appear to be unique to the work of the P.E teacher have also been highlighted.

When Al-Mohannadi & Capel (2007) explored the experiences of P.E. teachers (N= 199) in Qatar they identified eight factors which were sources of stress within the P.E context. In addition to the much lamented issues of 'workload' and 'pupil problems' (behaviour) the 'physical education curriculum'; 'low status of P.E.'; 'facilities' and having 'responsibility for pupil safety' were sources of stress for P.E. teachers. In this study 'pupil problems' remained as the main source of stress for all P.E teachers throughout the school year. There were differences according to gender in that male teacher perceived 'low status' and then 'facilities' as significant sources of stress while their female counterparts were more concerned with 'curriculum' and then

'pay'. It was suggested that status was an issue for male P.E. teachers due to a cultural perception that teaching P.E was not an acceptable career path for males. Differences in perception of stress were also observed between Qatari and non-Qatari teachers. The non Qatari teacher is employed on a yearly contract only and this is believed to have added to levels of stress in that they perhaps took on additional responsibilities in a bid to prove themselves. This may have influenced the manner in which they interacted with their teaching environment, (p. 17).

Stability in terms of a length of tenure may also be a factor in the Scottish context where the inductee P.E. teacher has one year to prove themselves prior to entering the job market. Within this Scottish context, the inductee is entering their first year of teaching a 'subject' considered as low status. In addition, they have experienced issues of status first hand in relation to the perceived worth of their PGDE programme (Chapter 5). However, unlike the teachers in Al-Mohannadi and Capel's study the P.E teachers entering their induction within the Scottish context have been provided with clear guidance pertaining to their professional development in the form of the Standard for Full Registration (SEED, 2002). These inductee teachers take issues of status with them as they enter a challenging professional climate imbued by role ambiguity, role conflict and change. Their perception of stress in teaching during the induction could be influenced by all of these aforementioned factors, their stage of development, the impact of organisational socialisation, opportunities for continued professional development (CPD) and in addition, individual capacity to cope with the unique demands of teaching physical education (Smith & Wai Leng, 2003).

6.1.4 CONTINUED PROFESSIONAL DEVELOPMENT: GREAT EXPECTATIONS

Pissanos and Allison (1996) define learning from the constructivist perspective as 'the meaning individuals construct from their experiences' and in addition highlight that there is 'a relationship between past and current experiences and this relationship provides a context for future learning' (p.2). They utilised a life history approach to

explore the meaning and value a female P.E teachers of 20 years experience, attached to continued professional learning within an American context. In summary they concluded that the following socialising factors impacted on this P.E teacher's continued professional learning: students (pupils); status; administrative (SMT) support; community perceptions of sport and personal/professional interactions (p.11). Significantly, it was concluded that the relationship between the personal and professional development of the teacher and their unique context was a complex one. Proposals for and provision of continued professional development for teachers within this Scottish context should take cognisance of the personal and professional needs of the teacher and the reality of their context/s.

Debate concerning the role of ITE in the continued professional development of the Scottish teacher has been evident since the McCone agreement (SEED, 2001). Thirty five hours of continued professional development (CPD) per annum was built into Scottish teachers contracts following this agreement and it was clear that CPD was to be considered a professional entitlement (Fraser, Kennedy, Reid & Mckinney, 2007). The induction scheme for newly qualified teachers in Scotland was implemented in 2002-3 and this heralded the way for a re-examination of the roles of schools, local authorities, ITE institutions and the teacher themselves in CPD.

In Scotland all teachers are graduates and teacher education is located within universities such as Edinburgh, Glasgow and Aberdeen. ITE institutes and schools work together in partnership rather than adopting a school based teacher model, to prepare the student teacher for the challenges of teaching (O'Brien & MacBeath, 1997). Concern over the efficacy of such partnerships has been previously raised (Mulholland, 2004) and more recently the lack of collaboration between local authorities, schools and ITE in the induction and continued professional development of teachers has been a topical issue. Following the successful implementation of the Scottish Induction Scheme the ministerial response to the review by SEED (2005)

underlined the need for collaboration and co-operation between all involved in ITE and CPD. This was seen as crucial in ensuring teachers were equipped to meet the challenges of teaching in the 21st Century.

A recent case study explored the role of the university in induction within the Scottish context (O'Brien & Christie, 2008). This study concluded that 'current policies and structures relating to teacher induction fails to find a role for universities' (p.160). The fact that the ITE contribution to CPD finishes as the student teacher graduates was questioned. This fragmentation of experience can only serve to reinforce the theory-practice divide associated with current partnerships in ITE. Moreover within the context of the study reported in this chapter, this may compromise the CPD of these inductees of Physical Education and their capacity to cope with the demands of teaching, due to a lack of continuity and recognition of the impact of past and present learning on future learning (Pissanos & Allison, 1996).

6.1.5 COPING

Differences in perception of stress in teaching may well be a feature of the inductees unique developmental journey. However, the manner in which individuals respond to stress in teaching, and how they perceive the individual teaching context are also believed to play a part in the extent to which teaching is perceived as stressful (Kyriacou, 1987; Griffith, et.al., 1999). Coping is a way of managing the demands individuals encounter at a personal and professional level. Snyder and Dinnoff (1999) portray coping as an attempt to diminish stress in everyday life, while Lazarus and Folkman (1984) hint at the complexity of this process. Their transactional model of stress indicates that coping encompasses:

'Constantly changing cognitive, behavioural, and/or emotional efforts to manage particular external and/or internal demands that are appraised as taxing or exceeding the resources of the person' (p.141).

Within this model of stress and coping a primary appraisal defines the nature of the demands faced. If considered threatening at any level a secondary appraisal weighs up

individual resources against perceived demands. Coping comes into play when there is a perceived mismatch between available resources and demands. In relation to the induction, that initial appraisal of demands would serve to monitor the extent to which these are perceived to be a threat to well being, self-esteem, positive evaluation and professional credibility (Kyriacou, 1987).

Individuals respond to and cope with stress in different ways. Indeed it has been suggested that some people are simply better copers. The person considered to be a better at coping would be depicted as having a sense of mastery, being optimistic, hopeful, able to ward off negative events, find a silver lining in adversity, and understand and effectively use emotions (Snyder & Dinoff, 1999, p. 332). In relation to the induction this person would be optimistic that they could meet the many demands of teaching during this time. While the inductee may be able to be positive at an emotional and cognitive level it would be expected that their sense of mastery would evolve over time, and that this developmental process in itself may be stress inducing.

Coping responses have been categorised in a number of ways such as 'direct' and 'problem-focussed' and 'avoidant' and 'emotion-focussed' (Griffith et al., 1999; Wilson, 2003). Direct problem focussed coping involves direct action focussed on tackling the problem or the stressor. In relation to the physical education teachers' induction when they may teach a range of new activities, this could involve observing teachers and/or developing content knowledge. Indirect avoidant coping would serve to lessen the impact of stressors such as work overload and discipline issues, but would not address these directly. This type of coping could be defined as emotion focussed when coping strategies are aimed at 'managing' emotional responses to stress. Alternatively avoidant coping could include 'palliative' strategies such as 'taking time out' or 'playing sport/exercising'. Coping in contemporary times is classified in a number of ways. While there is some concern over the use of such terms, coping strategies have also been defined in terms of being adaptive and

maladaptive (Snyder, 1999; Griffith et al., 1999). Interestingly, Snyder and Dinoff (1999) indicate that our response to stress (demands) are only considered as ‘coping’ if they effectively reduce the physical, emotional and psychological correlates of stress

6.1.6 COPING WITH STRESS IN TEACHING

A range of studies have explored the ways in which student teachers (e.g., Murray-Harvey, 1999) and fully fledged teachers (e.g., Chan, 1998; Griffith et.al., 1999) cope with stress in teaching. As the Inductee Teacher is poised on the altar between student and teacher it is useful to consider how pre-service and in-service teachers generally cope with stress in teaching. Murray-Harvey (1999) explored the concerns and coping strategies of Australian teacher education students during their placement experience. Subsequently, four broad categories of coping strategies used by undergraduate students during the time of the placement were highlighted. These were classified as personal, professional, social and institutional strategies. The range of sub-categories within each of these coping strategies, and examples of the types of coping strategy associated with each category, are summarised in Table 6.0.

Table 6.0. Overview of Coping Strategies utilised by Australian Teacher Education Students

Category of coping strategy	Sub-category of coping strategy	Example of coping strategy
Personal	Cognitive	Setting realistic expectations; Blocking the negative
	Physical	Sport, watching TV Behavioural (walking the dog) Emotional (trying not be too hard on self)
	Rational	Made time for myself away from work
Professional	Development of knowledge	Developed knowledge of curriculum, how school operates
	Self management skills	Planning, organisation) professional qualities (adaptability)
Social	People	Made time to socialise away from school
	Events	Partying
Institutional	School level	Support of colleagues
	University level	Support of University tutor

Ref: adapted from Murray-Harvey *et al* (2000) pp 28-29

Within this study, the social strategy of 'seeking support from the supporting teacher' was the main coping strategy utilised. However, it was concluded that professional strategies including 'self-reflection' and 'organisational techniques' were seen as crucial in minimising or actually avoiding stress. Students felt more comfortable within their specific placement (teaching) context if their content knowledge was good, they knew what was expected of them and they had an understanding of the organisational and structural features of the school (and department) they were entering into.

An earlier study by McDonald (1993) indicated that 'communication', 'being proactive' in terms of 'showing initiative', 'setting goals' and 'finding ways of relaxing' were ways in which students coped with stress in teaching. McDonald (1993) observed that coping strategies fell into two categories : self-management such as 'setting goals' and task handling such as 'planning and preparation'. Interestingly, it appeared that students perceived 'external stresses' as a part of teaching, and believed their capacity to cope, was dependent on the extent to which they could control 'internal stresses'. While the nature of these internal stressors were not made explicit, these could be related to the students' cognitive and emotional responses to external stressors.

Fully-fledged teachers have also been shown to cope with stress in teaching by 'seeking social support' (Griffith et.al.,1999) and adopting self-management strategies such as 'trying to keep things in perspective'; 'avoiding confrontations' and trying to 'relax at work' (Kyriacou, 1981; Johnstone, 1993). A questionnaire survey of primary and secondary teachers in England highlighted the extent to which coping responses can impact on perception of teaching as stressful. Within this study, Griffith, et al. (1999) identified a range of strategies deemed as 'adaptive' or 'maladaptive'. Strategies such as 'active planning' and 'seeking social support' were considered adaptive in terms of enabling the teacher to cope with stress. Alternatively, strategies

such as 'disengagement' and 'suppressing competing activities' were defined as maladaptive in terms of failing to reduce stress levels. Interestingly, it has been suggested that teachers have a tendency to utilise palliative coping strategies such as 'jogging' or 'letting off steam' to cope with stress in teaching (Wilson, 2003; Johnstone, 1989). These strategies serve to lessen the impact of the stress encountered in terms of being a diversion from the source of stress (Kyriacou, 2001).

There are a range of means of coping with stress in teaching. These strategies have been defined in terms of how effective they are in enabling the teacher to manage stressful encounters and demands. As the inductee teacher enters this new phase of their development, they will come armed with a repertoire of coping skills. However, it should be noted that coping strategies which have been effective in one situation may be 'wholly inappropriate in another' (Baumeister, Faber & Wallace, 1999; p.70). This is an important consideration in that each inductee teacher is immersed in a unique professional context. A feature of the induction context will be the diversity and myriad of transactions encountered by each inductee teacher, and the sheer number of 'classes' they teach during this part of their developmental journey. This may mean that coping strategies that were effective in the context of placement may not be within the context of the induction.

6.1.7. PROFESSIONAL CONTEXT

By acknowledging stress as an interactional and dynamic process (Lazarus & Folkman, 1984) the researcher must move beyond simply considering the intrinsic aspects of teaching *per se* such as workload, which plays a role in the generation of stress. This would involve considering the role of coping within the stress process and in addition, the interaction between the individual and their professional context. A range of general intrinsic and organisational factors can impact on perception of stress (Jarvis, 2003). As the inductee teacher enters the induction year, they may experience a degree of 'role ambiguity' in terms of being new to the

profession on one hand and but expected to fulfil the role of ‘teacher’ on the other. In addition, there may be times when they encounter a degree of ‘role overload’ due to a mismatch between ‘demands’ and their professional resources which could be a feature of the stage they have reached in their developmental journey. However, the actual nature and nuances of the professional context in which they are situated will also play a part in the inductee teachers’ perception of teaching as ‘stressful’. As explained in Chapter 2 the interaction between the individual and their occupational context can influence their perception of stress. In effect, the balance between the efforts we invest in work, the ‘rewards’ gained, and the extent to which we are supported in our efforts to meet demands plays, a key role in our perception of occupational stress. As the inductee teacher enters the profession their role is that of newly qualified and novice teacher. It has been suggested that their main priority at this juncture is to ‘survive’ (Huberman, 1993) and ‘fit in’ to their new professional context (Bleach, 1998). However, at the same time they are acutely aware that their job prospects depend on the extent to which they prove themselves during the induction year. Their perception of stress in teaching at this juncture will be dependent on the balance between the demands and rewards of teaching, their professional and personal resources, and the nuances of their professional context.

6.1.8. IMPACT OF STRESS IN TEACHING

It has been argued that stage of development and coping efforts can influence perception of stress in teaching. However, any study of a psychological construct such as ‘stress’ in teaching must also consider the reciprocal interaction between the individual and their specific context (Fives, Hamman & Olivarez, 2007). The degree to which the individual teacher feels they are ‘supported’ within their professional context has been shown to have a significant influence on burnout and efficacy. A study by Pierce and Molloy (1990) within the English context concluded that low

levels of social support resulted in teachers experiencing burnout. Moreover, Griffiths et al. (1999) highlighted the potential impact of professional ethos on levels of teacher stress. They concluded that coping and social support can moderate the impact of stressors on well being, but also individual perception of these as 'stressful' in the first place. In contrast, Sheffield, Dobbie and Carroll, (1994) concluded that levels of social support did not impact on teacher stress or psychological well being. While the influence of social support within the teaching context appears to be debated, it is important to point out that the availability of social support in itself may not be sufficient to ameliorate teacher stress. Social support can come in many forms and the extent to which the teacher can access, interpret and utilise this type of support is a factor worth considering. Over time, the cumulative impact of stress in teaching can serve to de-motivate the individual as well as compromise physical and psychological well being. The relationship between stress in teaching and psychological well being is notoriously problematic to corroborate (Chan, 2003). Nonetheless, a number of studies have reported high levels of psychological distress among teachers. In addition, female teachers appear to significantly more likely to report higher levels of stress than their male counterparts, especially within the secondary school context (Kovess-Masfety, Sevialli-Dediue, Rios-Seider & Norriere, 2007).

Coping plays a key role in either moderating and /or exacerbating levels of psychological distress, irrespective of the actual stressors (Chan, 1998, p. 159). In an investigation that explored the link between stress in teaching, coping and burnout, Chan (1998) concluded that physical and emotional exhaustion were alleviated if teachers coped by means of 'cognitive restructuring' and 'positive reappraisal' of the situation. In his study, males were less able to express emotions while females were more likely to seek social support. Interestingly, coping strategies only accounted for a relatively small variance in levels of burnout. Nonetheless, depersonalisation, which is encapsulated within the teaching context by a lack of connection with significant other

such as colleagues, was less of an issue for teachers who were willing and able to seek social support. While it could be assumed that coping would reduce levels of stress it is important to note that Baumeister et al (1999) points out that even successful coping, which could be defined as 'adaptive' can take a severe toll on the individual. In effect, efforts to manage 'stressors' can be energy depleting to the point where a 'psychological recharging process' may be required to enable the individual to regain 'perspective'. Bearing in mind that stress is an interactional process the following research questions underpinned this final study.

6.1.9. RESEARCH QUESTIONS

- **RQ1:** To what extent do physical education inductee teachers within the Scottish context perceive teaching as stressful?
- **RQ2:** Are there any specific variables which impact on these inductee teachers' perception of stress in teaching?
- **RQ3:** Among these inductee teachers is there any relationship between perception of stress in teaching and perception of well being?
- **RQ4:** How do these inductee teachers cope with stress in teaching?
- **RQ5:** How is 'stress in teaching' represented in the ways in which inductee teacher talk about their experiences and their everyday professional context? (In order to explore this last research question and examine key quantitative findings in greater depth, the study methodology switches from quantitative to qualitative analysis).

6.2. METHODOLOGY

6.2.0 INTRODUCTION

The methodology adopted within this final study was underpinned by the interactional model of stress (Lazarus & Folkman, 1984) that highlights stress as a process involving a complex interaction between the individual and their occupational context, as well as their personal responses to stressors. In effect perception of stress in teaching is shaped by a process comprising appraisal of everyday professional demands and efforts to manage or cope with such demands. Coping is activated in the event that there is a perceived mismatch between demands and available resources.

The purpose of this study was to explore postgraduate physical education student teachers' perception of stress in teaching as they made the transition from 'student' to 'inductee' teacher. Perception of stress in teaching was perceived as unique to each individual and their interactions within their specific occupational context. In light of this, the final study also explored 'coping' and 'context' through the eyes of the participants, and set this alongside their perception of stress in teaching during this time. All individuals, schools, departments and regions were assured anonymity and therefore no attempt was made to cross reference findings to specific institutions and regions.

6.2.1 DESIGN AND PARTICIPANTS

This final study adopted a mixed methods survey approach that utilised both semi-structured questionnaire and focussed email-interviews. Questionnaires were issued towards the end of the initial induction (December, 2006) and final induction (May, 2007). Sixteen (Male=9; Female=7) Inductee Teachers completed and returned questionnaires by the end of January 2007. This fell to 15 (Male=7; Female= 8)

towards the final phase of the induction in May 2007. Twelve inductees participated in email interviews during the month of June 2007. Overall 17 schools (and Physical Education departments) were part of the study by virtue of entering into the induction scheme during this time. Local Authorities, represented were Lothian, South Lanarkshire; West Lothian, East Lothian, Midlothian, Aberdeen, Argyll & Bute and Perth & Kinross .

In addressing the first four research questions (see p.196), a survey approach was adopted which was similar to that utilised in Study 1 and Study 2. In order to pursue the fifth research question an additional element was introduced in which participants responded to a structured email interviews. In what follows, the quantitative aspects of the study are referred to as 'Phase 1' and the qualitative aspects as 'Phase 2'. Phase 1 of the study was based on administration of a specially prepared questionnaire having four sub-sections as described in the following section. Phase 2 of the study was based on administration of a specially prepared structured email interview protocol (See App 8.a).

6.2.2. SURVEY INSTRUMENT

The survey instrument used in this study incorporated several existing questionnaires. An additional section was developed to explore participants' perception of coping with stress in teaching within the Scottish context. The details of the procedure followed are outlined in the Methods Chapter (Chapter 3, pp33-34). To develop the Coping With Teacher Stress (CWTS) Instrument (See App.6), postgraduates students met collectively with the researcher , and individually listed the ways in the which they had 'responded' to the demands of teaching during their recent placement. Responses were subjected to a content analysis, and 39 items were identified. The language was subsequently modified to ensure the scale reflected the views and experiences of the group. Participants were invited to verify

that the final CWTS instrument represented their responses to demands encountered within the teaching context. It was intended that these 'responses' would provide a mean of identifying how the inductee copes with stress in teaching.

The questionnaire comprised four sections. Section 1 gathered information regarding gender. One additional question was included in this section to specifically explore general perception of stress (GPS) in teaching. Question 2 asked participants to rate on a four-point scale the extent to which (0= 'not at' all stressful; 1= 'slightly' stressful; 2 = 'quite' stressful; 3= 'very' stressful) they generally perceived the profession of teaching as stressful.

Section 2 included the Stress in Teaching Scale (SITS) (See App.4) used in Study 1. Participants were invited to rate the extent to which (0= 'not at all'; 3= 'very much so') each of the 64 SITS items such as 'poor resources', 'workload', and 'inefficient line managers' stressed them within their everyday professional context. SITS served to identify the main 'stressors' for this group of inductees and, in addition, placed their perception of stress in teaching within the Scottish context.

Section 3 incorporated the General Health Questionnaire (GHQ-30) and the Glasgow Symptom Checklist (GSC) (See App 1 & 2). As explained previously, both scales provided a measure of changes in well being. GHQ and GSC data also enabled a comparison to be made between inductees perception of normal levels of functioning, and that of the general and Scottish clinical population respectively. Total scores for the 30 GHQ items and 44 GSC items were computed to provide two summary measures of 'well being'.

Section 4 incorporated the Coping with Teacher Stress scale (CWTS), which was developed for this final study (See App 6). This scale was designed specifically to explore coping with stress in teaching. CWTS comprised 39-items such as 'played

sport/trained'; 'used support of family/partner' and 'felt overwhelmed'. Participants were asked to indicate the extent to which they used each response and, they also rated how effective each response was (1= 'not at all'; 2= 'some of the time'; 3 = 'most of the time'; 4 = 'all of the time'). CWTS served to identify the nature and efficacy of the main coping strategies employed by participants within the induction context.

6.2.3 PROCEDURE

Within this study all instruments, with the exception of the Coping with Stress in Teaching Scale (CWTS), had been checked for reliability within either Study 1 or Study 2. As a final preliminary check, CWTS was piloted on twenty inductees not involved in the study. This group completed CWTS Questionnaires in two consecutive weeks at the end of their induction period (July 2006). Participants responses as measured by Pearson's r , indicated a high correlation between both sets of responses to the CWTS ($r = .7$) instrument. These findings demonstrate that this instrument displayed appropriate levels of reliability.

Phase 1

Survey Questionnaire

Two final versions of the questionnaire were compiled to cover the initial and final induction period. Twenty-one copies were printed for each phase of the induction. Questionnaires were administered towards the end of the initial induction (December 2006) and the final induction (May 2007). Survey packs were posted to inductees with a deadline and procedures for completion enclosed. To ensure a high response rate, the researcher also contacted inductees by email and telephone during the allotted completion period. Prior to this, ethical approval had been granted by the University ethics committee and schools/head teachers /inductees

had provided their consent (See App 9 & 10 for sample forms). All participants were debriefed and offered access to anonymous versions of the research findings on the completion of the study.

Phase 2

Structured Email Interviews (See App 8.0 a).

In addition to completing questionnaires during the time of the induction teachers also completed structured email interviews towards the end of the induction year. Email interviews were conducted with a view to exploring participants' retrospective perception of their unique professional context and further explore issues arising from the quantitative data. Email interviews have been utilised in research for more than a decade (Hunt & McHale, 2009). However there are clear limitations associated with this technique such as loss of focus due to time taken to complete interviews, issues of impersonality and missing non-verbal cues (Hunt & McHale, 2007, pp1417-8). However, with the context of this inductee study, time constraints and the feasibility of personally meeting with teachers placed in schools across the length and breadth of Scotland (see Chapter 6) made individual face to face interviews problematic. In addition, May and June are recognised as very busy times in Scottish secondary schools due to the start of the new timetable; sporting events and school shows. Inductee teachers are also involved in applying and being interviewed for permanent jobs during the final phase of the induction. Added pressure at this time may have simply served to compromise the validity of findings, rather than provide a true picture of participants' perception of stress in teaching during the induction. Email interviewing was utilised in this instance as this research method to gave the researcher extended access to participants (Coomber, 1997) during a busy time of year. It is however recognised that this medium provides no opportunity for the researcher to note non verbal behavior or prompt and probe to further engage the participant (Opendakker, 2006).

It is acknowledged that the quantitative data generated with the research reported in this thesis makes the main contribution to knowledge in the field. Nonetheless, the qualitative data generated during this final study, in the form of electronic copies of interviews respectively provides a starting point for a further exploration of the inductee perception of stress in teaching. Email interviews provided a manageable means of exploring issues highlighted by the quantitative findings. Within the context of this study, inductee experiences could have been explored further if the email interview had been followed up by subsequent email dialogue between the interviewee and the researcher. It is fully intended that a preliminary qualitative analyses of email interviews will inform a more in-depth exploration in the near future. Towards the end of the induction teachers responded to one closed question which asked them to list five words to describe their professional context. One open-ended question invited them to describe any factors which had made teaching 'more' or 'less' stressful during the time of the induction. At this stage 12 out of the 15 remaining participants responded to the structured email interview (See App 8a).

6.2.4. VARIABLES DERIVED FROM THE SURVEY INSTRUMENT

Questionnaires were issued during the initial and final induction. The first question in each questionnaire provided the independent variable for this study which was 'gender'. Question 2 provided a measure of general perception of stress (GPS) and served as a dependent variable. The total scores for the four SITS Factors, the GHQ-30 case and the GSC scores formed the other dependent variables. In addition, CWTS provided a means of highlighting the most effective coping strategies utilised during the induction. Finally, data gathered via the email interviews provided an insight into participants' perception of their professional context, and factors which impacted on their perception of stress in teaching during the time of the induction.

6.3. RESULTS

Phase 1

6.3.0. INTRODUCTION

The results section is structured in accordance with the survey instrument design. The first section outlines results for the General Perception of Stress (GPS) dependent variable. These results are presented in terms of overall findings and then broken down by gender. The second section adopts the same format in presenting results for the Stress in Teaching (SIT) dependent variables. The third section present findings for both the GHQ (General Health Questionnaire) and the GSC (Glasgow Symptom Checklist). As participants also provided responses to the GPS, GHQ-30 and GSC variables during their final placement (Chapter 5), these are outlined to allow comparisons over time. The fourth section presents the findings relevant to the CWTS (Coping with Teacher Stress) dependent variable. Finally, the fifth section presents findings from the email interviews which explored participants' perception of thier everyday professional 'context' in relation to stress in teaching.

6.3.1. GENERAL PERCEPTION OF STRESS IN TEACHING OVERALL FINDINGS

In section one of each of the induction questionnaires, a single question was included to measure general perception of stress (GPS) in teaching. Previously it had been highlighted that a significantly higher proportion of Postgraduates than Undergradaute Students had perceived teaching as 'very' stressful (Chapter 5). The overall responses of participants to the general perception of stress variable are shown in Figure 6.0a (final placement), Figure 6.0b (initial induction) and Figure 6.0c (final induction). A rating of '0' indicated that teaching was perceived as 'not at all' stressful while a rating of '3' indicated that teaching was perceived as 'very

stressful'. These figures suggest that perception of stress in teaching changed over time.

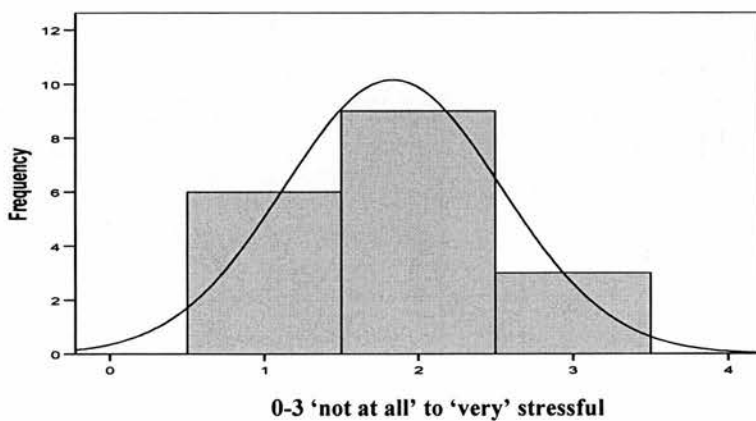


Fig.6.0a. Distribution of general perception of stress variable - Final Placement (N=22)

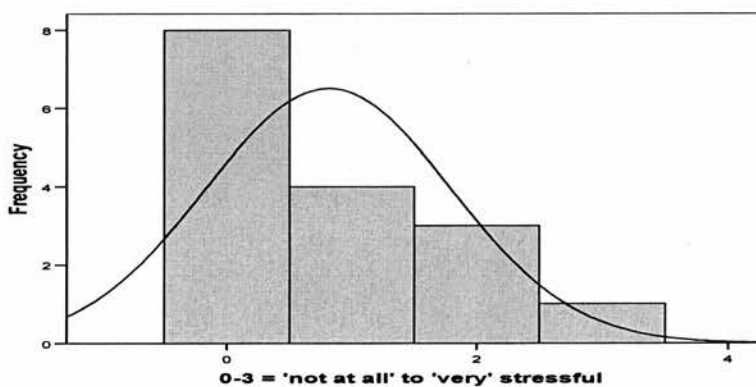


Fig 6.0b. Distribution of general perception of stress variable - Initial Induction (N=16)

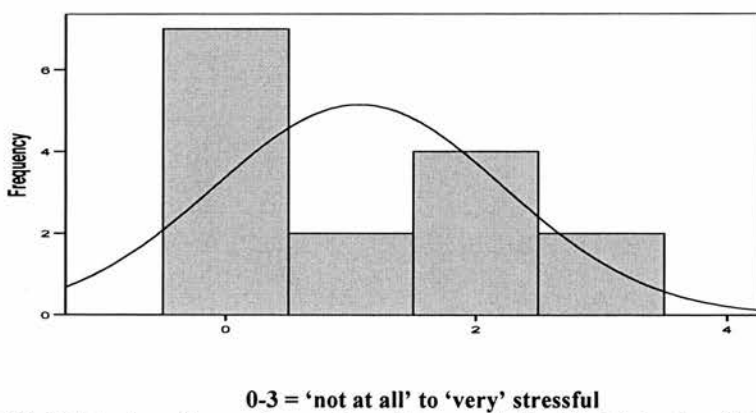


Fig. 6.0c Distribution of general perception of stress variable- Final Induction (N=15)

6.3.2 DIFFERENCES IN GENERAL PERCEPTION OF STRESS

The previous section provides an overview of general perception of stress during the final placement, and at two points in the induction. However, while changes in general perception of stress are apparent over time, it is not clear whether these are significant or not. Normally, preliminary findings would be explored by conducting a chi-goodness of fit test. However, this was not possible on this occasion as the sample size and distribution of responses violated the assumptions of this test (Seigel & Castellan, 1988). However, as the general perception of stress variable was measured at three points, on the same sample population, it was appropriate to conduct a Friedman test. This test is a nonparametric equivalent to a one-way repeated measure ANOVA (Pallant, 2005).

This test highlighted significant differences ($\chi^2(2)=11.511, p=.003$) between participants' 'general perception of stress' in teaching during this time. This can be explained by the marked shift in perception experienced as participants made the transition into and through, the induction year. While 67 per cent of participants perceived teaching as 'quite' to 'very' stressful' during the final placement, this changed markedly to 24 and 39 per cent during the initial and final induction respectively. Interestingly, almost half of the group perceived teaching as 'not at all' stressful during induction while no one fell into this category during the placement.

In addition to examining overall general perception of stress responses it is also possible to compare these responses, in relation to 'gender'. Based on the nature of the data and sample size, a Mann-Whitney U-test was conducted to examine responses in relation to gender. No significant differences were observed in general perception of stress in relation to gender during placement ($z = -1.421, p=.213$), the initial ($z = -.775, p =.439$) or final ($z = -.997, p =.319$) induction.

It was also possible to examine male and female responses over time. For this purpose, the data file was split by 'gender' and a series of Friedman Tests were conducted. Findings indicated that there were no significant differences in female ($\chi^2(2) 3.308, p = .191$) participants GPS responses over time. Twenty-six per cent of female participants generally perceived teaching as 'very 'stressful during the final placement and induction. However, male participants perceived teaching as significantly less stressful ($\chi^2(2) 10.211, p = .003$) as they made the transition into, and through, the induction. Fifty seven per cent of males perceived teaching as 'very stressful' during the final placement. In contrast, 57 per cent of male participants generally perceived teaching as 'not at all' stressful, and none generally perceived teaching as 'very stressful' by the end of the induction.

6.3.3. STRESS IN TEACHING (SITS)

The purpose of this phase of the analysis was to further explore the findings revealed by the study of the general perception of stress variable. While this variable provides a snapshot of perception of stress in teaching it does not provide the reasons why teaching was generally perceived as less stressful with the passage of time. The Stress in Teaching Scale (SITS) which is discussed in this section, provides a means of answering this further question. SITS explores participants' perception of their everyday professional context (SITS) and provides a means of understanding the findings generated by the general perception of stress variable.

Stress in Teaching Scale

As explained in Chapter 4, the Stress in Teaching scale comprised four factors. It was not appropriate to run a confirmatory factor analysis in this study as the sample size was too small. However, it was possible to compute raw factor scores for each of the SITS Factors : F1: Work Overload; F2: Professional Ethos; F3: Teaching Learning Interface and F4: Perceived Support. The first aim of this section was to

explore overall perception of stress in terms of these four SITS factors. In addition, perception of stress was also explored in relation to gender and the passage of time (Initial and Final Induction).

Table 6.1 provides an overview of the mean (SD) factor scores for the initial and final phase of the induction. In addition, the five main stressors within each factor are listed according to 'highest' mean. This table indicates that mean SITS Factor scores decreased during the time of the induction. An overview of the number of items within each of SITS factors (identified by PCA in Study 1:Chapter 4) and, the main stressors for the group during the initial and final induction are presented below:

F1: Work Overload: This factor contained 23 items. The main stressors for the group according to highest mean were 'too little time' and 'assessment/marking' during the initial induction and 'workload' and 'deadlines' by the time of the final induction.

F2: Professional Ethos: This factor contained 19 items. The main stressors for the group were 'stressed out colleagues'; 'job security' during the initial induction, 'lack of support from other staff' and 'stressed out colleagues' by the time of the final induction.

F3: Teaching Learning Interface: This factor contained 13 items. The main stressors were 'low level indiscipline' and 'lack of pupils' motivation' during the initial induction and 'lack of pupil motivation' and 'pupils' manners' by the end of the induction.

F4: Perceived Support: This factor contained eight items. The main stressor were 'poor resources for courses' and 'physical school conditions' during the initial induction and 'inefficient line managers' and 'physical school conditions' by the end of the final induction.

Table 6.1 SITS Factors (no of items per factor) inductees' teacher Mean (SD) for SITS Factors during the initial and final stages of the induction with and top five stressors March 2006-June 2007

FACTOR (Number items)	Mean (SD) SIT Factors 1-4		Initial Induction December 2006		Final Induction June 2007	
	Initial Induction December 2006	Final Induction June 2007	Five main stressors	Five main stressors	Five main stressors	Five main stressors
F1: Work Overload (23)	19.3(9.2)	16.0(6.1)	Too little time Assessment/markings Workload Too much paperwork1. Lack of time for practical subjects	Too little time Assessment/markings Workload Too much paperwork1. Lack of time for practical subjects	Workload Deadlines Too little time Covering other peoples classes Time spent working at home	Workload Deadlines Too little time Covering other peoples classes Time spent working at home
F2: Professional Ethos (13)	9.93(.5.3)	10.9(8.1)	Stressed out colleagues Job security Institutional politics Coping other staff's feelings Teacher blame culture	Stressed out colleagues Job security Institutional politics Coping other staff's feelings Teacher blame culture	Lack of support from other staff Stressed out colleagues Job security Teacher blame culture Coping with other staffs' feelings	Lack of support from other staff Stressed out colleagues Job security Teacher blame culture Coping with other staffs' feelings
F3: Teaching-Learning Interface (19)	14.19(.60)	8.00(4.78)	Low level indiscipline Lack of pupil motivation Indiscipline Pupils manners Erosion of teachers' authority	Low level indiscipline Lack of pupil motivation Indiscipline Pupils manners Erosion of teachers' authority	Lack of pupil motivation Pupils manners Large class sizes Interruptions Low level indiscipline	Lack of pupil motivation Pupils manners Large class sizes Interruptions Low level indiscipline
F4: Perceived Support (8)	5.56(.4.8)	5.95(3.41)	Poor resources for courses Physical school conditions Poor resources for courses Working environment Lack technical support	Poor resources for courses Physical school conditions Poor resources for courses Working environment Lack technical support	Inefficient line managers Physical school conditions Lack of support from other staff Lack of support external agencies Working environment	Inefficient line managers Physical school conditions Lack of support from other staff Lack of support external agencies Working environment

6.3.4: SITS FACTORS: OVERALL RESPONSES

F1: Work Overload

Within F1: Work Overload a score of '0' indicated that no item was deemed stressful while a score of '69' indicated that all 23 items were 'very' stressful. Scores ranged from 0 to 40 during the initial induction (Fig 6.1a) and 5 to 35 during the final induction (Fig 6.1b).

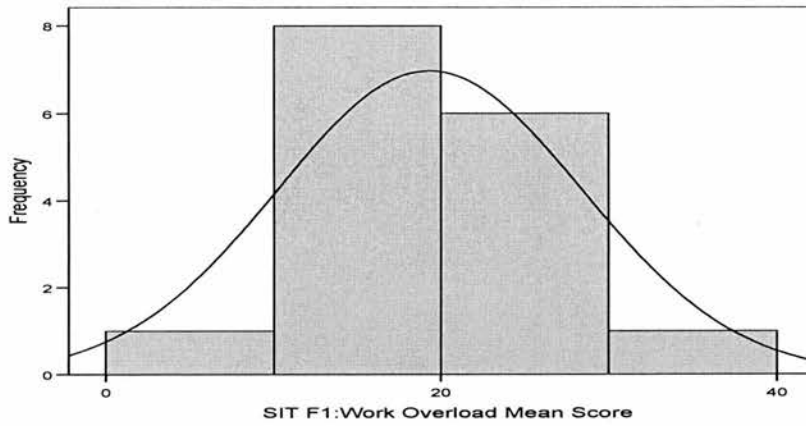


Fig. 6.1a. Distribution of F1: Work Overload scores (Initial Induction) N=16

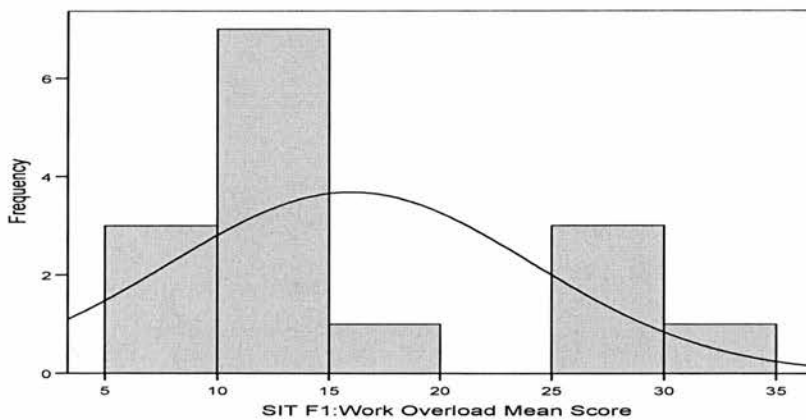


Fig. 6.1b. Distribution of F1: Work Overload scores (Final Induction) N=15

A *t*-Test was conducted to assess the extent to which F1:Work Overload responses fall within the normal distribution. As the lowest score possible was '0' and the

highest '69' the test value was set at 34.5. The group mean for this factor was 19.3(8.5) and 16.0 (8.14) during the initial and final induction respectively. Result of both *t*-Tests indicated that during the initial ($t = -6.653, p \leq .001$) and final ($t = -8.801, p \leq .001$) induction the distribution of scores within F1:Work Overload varied significantly from what would be expected within the hypothesized population. Participants did not perceive this aspect of teaching as 'stressful' at any point during the induction.

F2: Professional Ethos

Within F2:Professional Ethos a score of '0' indicated that no item was deemed stressful while a score of '57' indicated that all 19 items were 'very' stressful. Scores ranged from 2 to 17 during the initial induction (Fig 6.2a) and 4 to 23 during the final induction (Fig 6.2b).

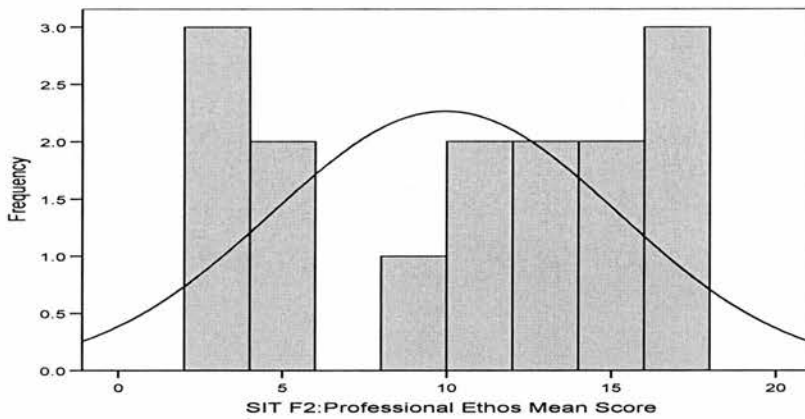


Fig. 6.2a. Distribution of F2: Professional Ethos scores (Initial Induction) N=16

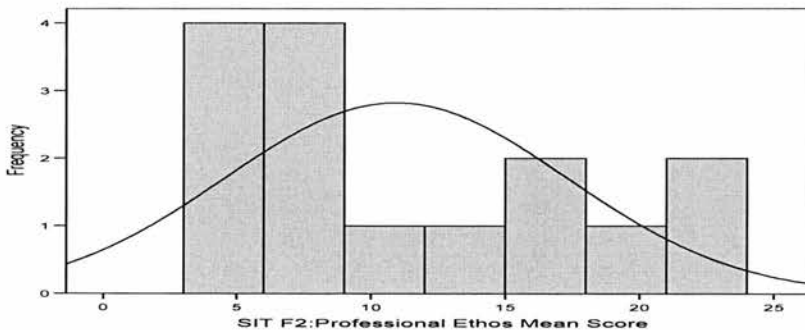


Fig. 6.2b Distribution of F2: Professional Ethos scores (Final Induction) N=15

As the lowest score possible for F2: Professional Ethos was '0' and the highest '57' a test value was set at 28.5. The group mean for this factor was 9.9(5.28) and 10.9 (6.34) during the initial and final induction respectively. Results for both *t*-Tests indicated that during the initial ($t = -13.608, p \leq .001$) and final ($t = -10.691, p \leq .001$) induction responses associated with F2:Professional Ethos differed significantly from what would be expected within the hypothetical population. Participants did not perceive this aspect of teaching as 'stressful'.

F3: Teaching and Learning Interface

Within F3:Teaching Learning Interface a score of '0' indicated that no item was deemed stressful while a score of '39' indicated that all 13 items were 'very' stressful. Scores ranged from 4 to 25 during the initial induction (Fig 6.3a) and 3 to 20 during the final induction (Fig 6.3b).

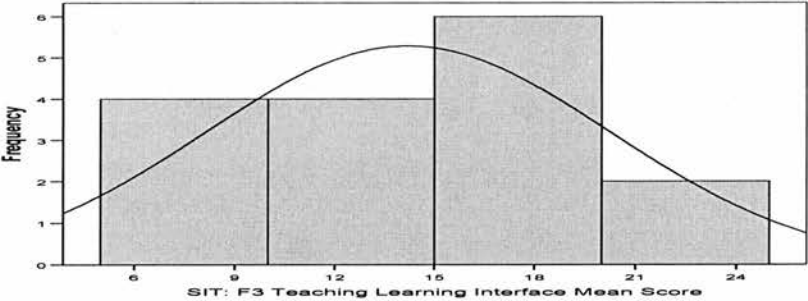


Fig.6.3a. Distribution of F3: Teaching Learning Interface scores (Initial Induction) N=16

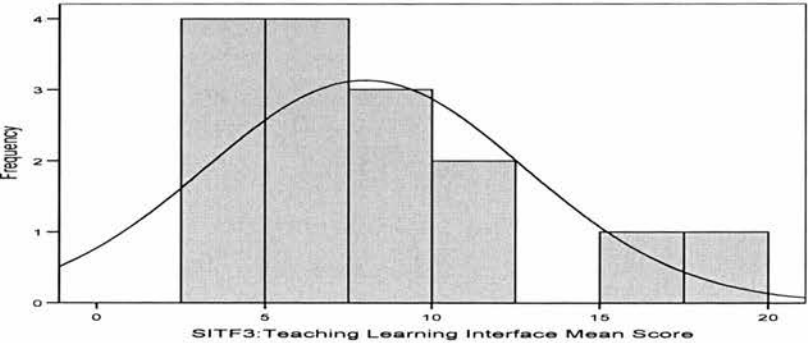


Fig 6.3b. Distribution of F3: Teaching Learning Interface scores (Final Induction) N=15

As the lowest score possible within this factor was '0' and the highest '39' a test-value of 18.5 was set. The group mean for F3: Teaching was 14.19 (5.28) and 8.00 (4.78) during the initial and final induction respectively. When a Bonferroni adjusted alpha of $p \leq .007$ was applied the result of the t -Tests indicated that during the initial induction ($t = -2.858, p \leq .012$) responses associated with F3: Teaching Learning Interface did not differ significantly from what would be expected. However, responses were significantly lower than the norm by the final phase of the induction ($t = -8.506, p \leq .001$).

F4: Perceived Support

Within F4: Perceived Support a score of '0' indicated that no item was deemed stressful while a score of '24' indicated that all eight items were 'very' stressful. Scores ranged from 0 to 15 during the initial induction (Fig 6.4a) and 0 to 13 during the final induction (Fig 6.4b).

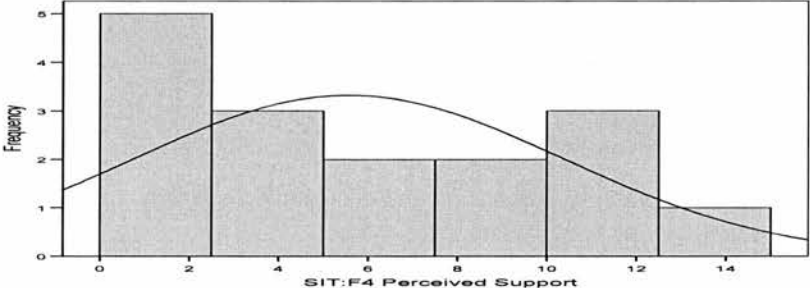


Fig. 6.4a. Distribution of F4: Perceived Support scores (Initial Induction) N=16

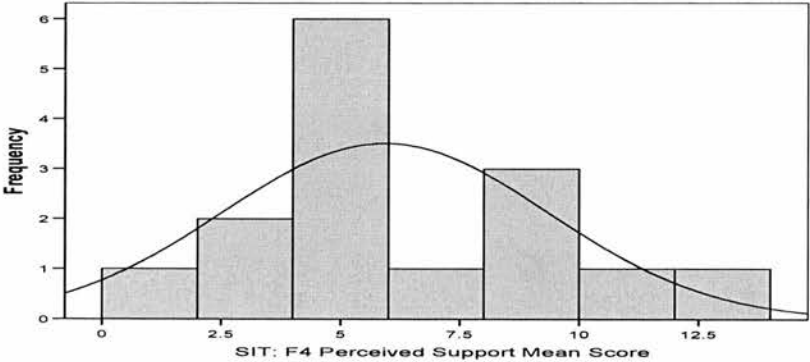


Fig. 6.4b Distribution of F4: Perceived Support scores (Final Induction) N=15

As the lowest score possible within the factor was '0' and the highest was '24' a test-value of 12.0 was set. The group mean for F4:perceived Support was 5.56(4.80) and 5.93(3.41) during the initial and final induction respectively. The result of the *t*-Tests indicated that during the initial ($t=-5.362, p \leq .001$) and final phases ($t= -6.887, p \leq .001$) of the induction responses associated with F4: Perceived Support differed significantly from what would be expected. Participants did not perceive this aspect of teaching as 'stressful'.

6.3.5: DIFFERENCES IN SITS FACTORS RESPONSES

In addition to examining overall response it is also possible to compare these responses in relation to 'time' as in the initial and final induction, and 'gender'. A series of Wilcoxon Signed Rank Tests (Pallant, 2005) were conducted to compare factor scores during the initial and final induction. No significant differences in responses were observed in relation to F1: Work Overload (WO) ($z = -.787, p = .431$); F2: Professional Ethos (PE) ($z = -1.194, p = .233$) and F4: Perceived Support (PS) ($z = -1.167, p = .243$). However, significant differences were observed in relation to F3: Teaching and Learning Interface (TLI) ($z = -2.833, p = .005$). Figure 6.0 provides an overview of SITS Factor mean scores during the initial and final induction. This figure suggests that there was a difference in perception of F1: Work Overload (WO) and F3: Teaching Learning Interface (TLI) over the time of the induction.

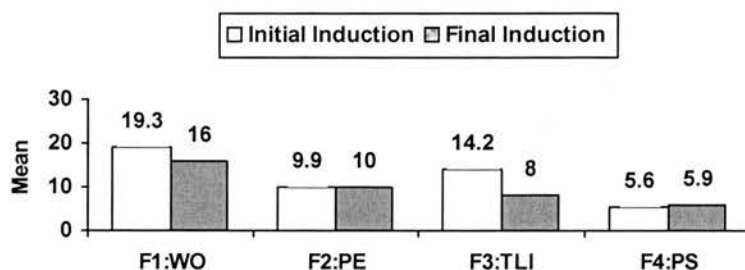


Fig 6.5. Mean SIT Factor scores during the initial and final induction

Perception of stress associated with F2: Professional Ethos and F4: Perceived Support remained relatively unchanged during the induction year while inductees perceived F1: Work Overload as less stressful. Interestingly, the group perceived F3: Teaching Learning Interface as significantly less stressful by the final phase of the induction. It is worth noting that the mean score for this specific factor dropped from 14.2 (6.0) to 8.00 (3.4) as participants progressed through the induction year.

A series of Mann Whitney-U Tests (Pallant, 2005) were conducted to explore factor responses during both phases of the induction in relation to 'gender'. When a Bonferroni adjusted alpha of $p \leq .007$ was applied no significant differences were observed during the initial and final induction in relation to gender within F1: Work Overload ($z = -1.003, p = .301$; $z = -.058, p = .953$); F2: Professional Ethos ($z = -1.359, p = .174$; $z = -1.3559, p = .0117$); F3: Teaching and Learning Interface ($z = -1.689, p = .091$; $z = -.929, p = .353$); and F4: Perceived Support ($z = -.981, p = .326$; $z = -.861, p = .867$). However, it should be noted that if an alpha value of $p \leq .05$ was applied, differences in perception of F3: Teaching and Learning Interface in relation to gender almost reached significance ($p = .09$).

To explore SITS factor responses in relation to 'time' and 'gender' the data set was split and a series of Wilcoxon Signed Rank Test were conducted. No significant differences were observed for either females or males in relation to F1: Work Overload; F2: Professional Ethos and F4: Perceived Support. However female participants perceived F3: Teaching Learning Interface as significantly ($z = -2.524, p = .012$) less stressful as they reached the final phase of the induction. Female scores for F3: TLI dropped from a mean of 14.9 (6.03) to a mean of 8.00 (4.78) during the induction.

6.3.6 PERCEPTION OF WELL BEING

The results of the previous sections highlighted that participants did not generally perceive teaching, or any of the four dimensions of teaching, as stressful. Moreover, they perceived F3: Teaching Learning Interface as significantly less stressful as they progressed through the induction year. Based on their perceptions of stress in teaching, Inductee teachers were not expected to report significant changes in their normal levels of well being. The aim of this section was to explore the extent to which participants experienced changes in well being during both phases of the induction. In addition, these findings were compared to their GHQ and GSC responses from Study 2 (Chapter 5). As previously mentioned these findings should be treated with caution as this study did not explicitly consider the inductees personal-professional interface.

Preliminary Correlational Analysis

As a preliminary step, scores derived from SITS were compared to responses for the General Health Questionnaire (GHQ-30) and the Glasgow Symptom Checklist (GSC). SPSSv14 was used to compute total mean scores for SITS, GHQ30 and the GSC. To explore the relationship between SITS Factors and the other three measures Pearson's Product Moment Correlation were calculated (SITS) in relation to the initial and final phase of the induction. Table 6.2 provides a summary of the correlations between variables.

Table 6.2 Correlations between SITS Factors , GHQ-30 and GSC during the final placement, initial induction and final induction

	Initial Induction	Final Induction	Initial Induction	Final Induction
SITS Factors	GHQ-30	GHQ-30	GSC	GSC
F1: Work Overload	.43	-.17	.70**	.35
F2: Professional Ethos	.54*	-.22	.52*	.08
F3: Teaching Learning Interface	.34	-.15	.41	.27
F4: Perceived Support	-.03	-.12	.39	.34

* $p \leq .05$, ** $p \leq .01$)

It is interesting to note that positive relationships between SITS Factors and measures of well being were only observed during the time of the initial induction: F2: Professional Ethos and GHQ-30 ($r = .54$) and the GSC ($r = .52$); F1: Work Overload and GSC ($r = .70$). However no significant relationships were observed between any of the four SITS factors and the GHQ/GSC in relation to the final induction. What this data shows is that there is initial evidence to suggest a relationship between perception of stress in teaching and well being. As Inductee Teachers perceived teaching as less stressful they also reported less change in their normal levels of well being.

The next section now goes on to present analyses which are analogous to those outlined in preceding sections. First GHQ-30 and GSC scores for the sample population as a whole are examined. In addition inductees' perception of well being is placed alongside that of a general (GHQ-30) and clinical (CP) population. Following this, the relative impact of 'time' and 'gender' on perception of well being is explored.

6.3.7. GHQ-30 AND GSC OVERALL FINDINGS

A descriptive analysis of GHQ-30 and GSC responses was conducted and a range of 'problems' that had bothered inductee teachers much more than normal in recent weeks were identified. Table 6.3 lists the five main 'problems' reported by Inductee Teachers during the time of the induction. These are ranked according to the percentage of participants perceiving each problem as 'rather' to 'much worse' than normal in recent weeks. Findings from the final placement are provided for comparative purposes. Interestingly, the main problem experienced by participants during both phases of the induction was being 'upset by noise'. While 55 per cent of participants had 'felt under constant strain' during the final placement this had fallen to 38 per cent during the initial induction.

By the final phase of the induction inductee teachers were not bothered by problems such as 'feeling under constant strain' and 'tiredness'. Nonetheless, one third of Inductee Teachers had 'been getting scared or panicky for no good reason'. Between 20 and 47 per cents of Inductee Teachers experienced a range of problems such as being 'upset by noise'; 'getting scared or panicky'; 'restless' which are all anxiety related. In additon problems normally associated with depression. such as ' been taking things hard'; 'can't be bothered' and 'not being able to concentrate' were also reported by inductees. However, it is important to point out that around half of inductee teachers did not experience any of these problems to any significant degree.

Table 6.3 Five main problems experienced in rank order according to number (N) of participants reporting each as 'much' to 'very much worse' (GHQ) than their norm (GHQ) or bothering them 'quite a lot' to 'very much more' (GSC) during each phase of the study

Final Placement (T1) Main problems experienced (N=22)	F	%	Initial Induction (T2) Main problems experienced (N=16)	F	%	Final Induction (T3) Main problems experienced (N=15)	F	%
GSC14 Felt constantly under strain	12	55	GSC14 Upset by noise*	7	44	GSC14 Upset by noise	7	47
GHQ-17 Been able to enjoy everyday activities	12	55	GHQ-14 Felt constantly under strain	6	38	GHQ-19 Being getting scared or panicky for no good reason	5	33
GSC-21 Feeling physically weak	11	50	GHQ-13 Felt capable of making decisions about things	4	25	GHQ-1 Not able to concentrate on whatever you're doing	4	27
GSC44 Tiredness	11	50	GSC4 Can't be bothered	4	25	GSC15 Restless	4	27
GHQ-32 Recurring thoughts	9	41	GHQ-19 Been getting scared or panicky for no good reason	3	19	GHQ-18 Been taking things hard	4	27

6.3.8. PERCEIVED WELL BEING: A COMPARISON WITH THE GENERAL (GHQ) AND CLINICAL (GSC) POPULATION

To place inductee perception of well being in context their GHQ-30 case scores (Goldberg, 1987) and GSC Factor scores (Mahmood, 1999) were compared to a general and clinical population respectively. Based on the findings outlined in the previous sections, it was anticipated that participants' perception of well being would be reflective of those reported in the general (GHQ-30) rather than the clinical (GSC) population.

General Health Questionnaire-30

Firstly, total GHQ-case scores were used to compare inductee teacher responses to that of the general population. Generally, a case score of '5' is used to indicate what is referred to as 'caseness'. However, as explained in previous chapters (Chapters 4 & 5), there are some concerns over the robustness of this method of scoring the GHQ-30. To address this concern cut off scores of '5'; '10' and '20' were considered as indicative of degrees of 'caseness'. Figure 6.6 provides a summary of the proportion of inductees and a general population surveyed by Cox et al (1987), who recorded scores indicative of 'caseness'. GHQ-case scores recorded during the final placement were also included for comparative purposes. This figure suggests participants experienced greater changes in normal levels of well being than would be expected in a general population, during the time of the final placement. However, this was not the case as inductee teachers moved into, and through, the induction.

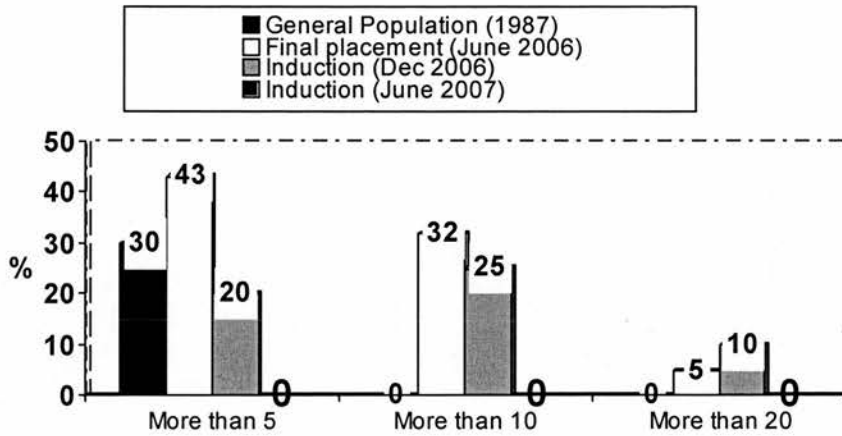


Fig.6.6. Proportion of participants recording scores indicative of 'casenes' during the final placement (N=22) initial (N= 16) and final induction (N=16): A Comparison With a General Population (N=6498)

Glasgow Symptom Checklist

Secondly GSC Factor scores were compared to a clinical population (CP) drawn from a Scottish context. In the first instance participants' means scores for each of the seven GSC factors were placed alongside the norms (Mean \pm 1SD) of the clinical population (Mahmood, 1999). Participants results from the final placement (Chapter 5) were included for comparative purposes. Table 6.4 provides details of this comparison

Table 6.4 :Percentage PGDE Student Teachers (ST) and Inductee Teachers (IT) scoring similar to the Clinical Population (CP) norms (Mean \pm 1SD) within GSC factors (check order of items)

GSC Factor(N items)	Mean (+/-1SD) GSC Score Clinical Population (CP)	% ST scoring similar to the CP during final placement	% IT scoring similar to CP during Initial Induction	% IT scoring similar to CP during Final Induction
F1: Personal ineffectiveness*	11-27	62.1	6.3	6.3
F2: Depression*(0)	8-19	22.2	0.0	13.3
F3: Tension*	1-7	52.6	31.2	0.0
F4: Anxiety*	6-13	11.5	6.3	20.0
F5: Social Problems*	4-13	21.1	18.8	13.3
F6: Loss of control	2-7	31.6	12.6	6.7
F7: Stomach/bladder problems	2-6	31.6	25.0	33.3

6.3.9. DIFFERENCES IN PERCEPTION OF WELL BEING

In addition to exploring GHQ-30 and GSC overall responses it was also possible to explore responses, in relation to the passage of 'time' and 'gender'. There was a marked contrast between perceived well being during the final placement, and induction in that while 43 per cent of participants recorded a 'case' score during the final placement this fell to zero by the final phase of the induction. Interestingly, it was during the initial induction that the highest proportion of participants scored in excess of '20' (see Fig 6.6) which may explain the high correlations between SITS Factors and measures of well being.

As the GHQ-30 variable was measured at three points, a Friedman Test (Pallant, 2005) was conducted to compare responses over time. The test highlighted significant differences ($\chi^2(2) = 1.2000, p = .002$) in GHQ-30 case scores over time. Mean GHQ case scores dropped from a 7.00 (7.1) during the final placement to a mean of 2.4 (2.6) and 2.5 (3.7) during the initial and final induction respectively. It should be noted that, if a mean score of '5' was retained as a measure of caseness, the group as a whole fell into this category during placement while no one did at any point in the induction.

A series of Mann Whitney-U Tests were conducted to explore GHQ responses in relation to 'gender'. No significant differences in total GHQ-case scores were observed in relation to gender during placement ($z = -1.109, p = .278$) the initial ($z = -1.596, p = .110$) or final ($z = -2.070, p = .039$) induction.

To examine male and female responses over 'time' the data file was split by 'gender' and a series of Friedman Tests were conducted. Findings indicated that there were no significant differences in male ($\chi^2(2) 3.26, p = .196$) participants GHQ-30 responses over time. However, female participants recorded significantly ($\chi^2(2) 11.565, p = .003$) lower GHQ-30 scores as they made the transition into, and through, the

induction. Female GHQ-30 score dropped from 11.6 (3.97) during placement to 3.0 (4.56) and 1.5 (2.32) during the initial and final induction respectively.

Glasgow Symptom Checklist

In comparison to the clinical population between 6 and 31 per cent of inductees recorded similar problems across the range of GSC factors. This is a marked contrast to the placement when between 11 and 62 per cent of the group recorded scores similar to the clinical population. By the final phase of the induction, and in comparison to placement (Chapter 5) a greater proportion of participants recorded similar scores to the clinical population (CP) in relation to, F4: Anxiety. Interestingly, levels of problems experienced in relation to F2: Depression; F4: Anxiety and F7 Somatic Problems had increased during the course of the induction although these findings were not significant. However, the greatest change was observed in relation to the lower proportion of inductee teachers scoring similar to the clinical population in relation to F1: Personal Ineffectiveness; F3: Tension and F6: Loss of Control. A series of Wilcoxon Signed Ranks tests were conducted to ascertain if these differences were significant. No significant differences were observed although differences in F3: Tension almost reached statistical significance ($z = -1.857, p = .06$).

A series of Mann Whitney-U Tests were conducted to compare GSC Factor scores in relation to gender. There were no statistically significant differences in GSC Factor scores according to gender at any point during the placement or induction. However, differences in F1: Personal Ineffectiveness almost reached statistical significance during both phases of the induction ($z = -1.665, p = .063$). In fact, female participants recorded a score of 5.50 (4.2) for F1: Personal Ineffectiveness while males recorded a mean of 1.50 (1.76) for this factor. To explore male and female responses over time, the data file was split by 'gender' and a series of Friedman Tests were conducted. Findings indicated that there were significant differences in male and female

participants GSC F1:Personal Ineffectiveness ($p= 003$) and F3:Tension ($p = 001$) scores as they progressed through the induction.

SUMMARY

As participants progressed through the induction year they perceived teaching as less stressful and also reported less changes in their normal levels of well being (GHQ/GSC). By the final phase of the induction no participant recorded a GHQ-30 score indicative of ‘caseness’ and there had been a significant decrease in the levels of GSC F3: Tension experienced by the group. In addition, female participants perceived F3: Teaching Learning Interface as significantly less stressful. It is interesting to note that in such a relatively short space of time in the life-span of a ‘teacher’, participants appeared to be adapting to the ‘demands’ of the profession. This next section provides an overview of inductee ‘coping’ during the induction in addition an insight into their perception of their ‘professional context’. This may shed some light on the reasons why these inductee teachers appear to have adapted to the demands of teaching with relative ease.

6.3.10. COPING WITH TEACHER STRESS: OVERALL FINDINGS

The Coping with Teacher Stress (CWTS) (See App.6) scale was included in the final section of the questionnaire. Participants were invited to indicate the extent to which they utilised (1= ‘not at all’; 2= ‘some of the time; 3 = ‘most of the time; 4= ‘all of the time’) a range of 39 responses (CWTS) to the demands of teaching during the initial, and then final phase of the induction. Responses were initially ranked according to number of inductees using this coping strategy ‘most’ or ‘all of the time’ and finally in relation to ‘efficacy’. The ‘efficacy’ score was computed by calculating the number of participants utilising that specific response most/all of the time and then subtracting the number of participants who considered each response effective ‘most/all of the time’.

Table 6.5 provides an overview of the main strategies utilised during the initial and final induction. These are organised in terms of the five most and five least effective coping strategies. The first column indicates the nature of each coping strategy based on Murray-Harvey's (1999) categorisation such as 'personal' (PE) 'professional' (PR) and 'social'(S) strategies. The final column provides an indication of the efficacy (EFF) of each strategy. Responses considered effective 'most /all of the time' are marked with an asterisk *. A lower score indicates a response was considered more effective such as 'saw this as a good learning experiences (EFF=1). Alternatively, a higher score such as 'focused exclusively on teaching (EFF= 13) indicates this strategy was 'not effective'. The two main strategies utilised by all participants during the initial induction were social in nature in that the focus was on 'building positive' relationships with 'staff' and 'pupils' alike. In addition, inductees found the personal strategy of 'confronting any problems encountered' effective. However, by the final induction the most effective strategies comprised a range of social, professional and personal strategies. It is interesting to note that all of the coping strategies identified as 'least effective' during the induction were 'personal' in nature. These tended to be emotional , cognitive and palliative responses to stress such as 'feeling overwhelmed'; 'keeping things in perspective' and 'drinking alcohol'. In addition 'focussing on teaching exclusively' which could be defined as 'supressing competing activities' (Griffith et al., 1999) was deemed ineffective.

Overall there were similarities in the types of coping strategies utilised by male and female participants during the induction. However, there were some differences. Both groups found social strategies such as 'building positive relationships' as effective, while female inductee also found professional strategies such as 'making sure they were organised' and 'observing other teachers' as effective. In contrast, male inductees tended to rate cognitive(personal) strategies such as 'seeing this as a good learning experience' and 'seeing teaching as a challenge' as effective.

Table 6.5 Five most and least effective coping strategies according to efficacy scores (EFF) during the final placement (T1) and the induction (T2 and T3)

Initial Induction; August-December 2006			Final Induction; January-June 2007				
	Moat effective strategies	N	EFF	Most effective strategies	N	EFF	
S	Built positive relationship with other school colleagues	16	*	Used support of school mentor	15	*	
S	Built positive relationships with pupils	16	*	Make sure everything was well planned	15	-1	
S	Shared ideas and resources with other students/teachers	16	*	Played sport/trained	15	-1	
S	Built positive relationships with staff in department	16	-1	Shared experiences good and bad with other students/teachers	15	-1	
PE	Confronted any problems encountered	16	-1	Took time to relax	15	-1	
Least effective strategies			EFF	Least effective strategies			EFF
PE	Feeling overwhelmed	11	-11	Focussed exclusively on teaching	13	-13	
PR	Keeping things in perspective	11	-10	Feeling overwhelmed	10	-1-	
PE	Doubting myself	9	-9	Doubting myself	10	-10	
PE	Drinking alcohol	11	-9	Getting upset/crying	7	-7	
PE	Getting upset/crying	8	-8	Drinking alcohol	9	-6	

6.3.11 STRUCTURED EMAIL INTERVIEWS

Phase 2

This final section presents a summary of the findings of the structured email interviews. Interviews were designed to explore inductee teachers' perception of their unique professional context and, in addition their perception of factors which make teaching 'more' stressful or 'less' stressful. For the purpose of this thesis only a preliminary analysis of interview responses was conducted to provide an initial insight to the relationship between professional context, coping and perception of stress in teaching (See App 8). At a later date, these preliminary findings will inform a more in-depth exploration and analysis.

Procedure

Towards the end of June 2007, 12 participants responded to a structured email interviews. In the first instance participants were asked to 'reflect on their induction experience' and 'identify five key words which most accurately described the context they were working in.' Secondly, participants were asked to 'reflect on their induction experience' and 'describe any factors which made teaching 'more stressful' or 'less stressful' during this time (See App 8). As a preliminary step in analysis, the participants' responses to question one and two were collated separately and stored electronically. This collated data representing participants' responses to the two questions was then read through, and an initial process of identifying thematic categories was carried out. As explained in Chapter 5 (pp. 146-7) this entailed considering the text and developing phrases that explained issues within the data. This enabled the researcher to explore the meaning of the groups' responses and identify thematic categories (Glaser, 1964, Podlog & Eklun, 2006).which summarised the inductee teachers' perception of their professional context, and factors which made teaching more and less stressful during the time of the induction . For example, when

responses to question one reference what the participant gained from the teaching context such as 'enjoyment' and 'learning' these responses were annotated as belonging to the same 'rewards' category. On the other hand, when participants referred to the demands of the induction context then responses such as 'challenging' were categorised as 'demands'.

As explained in Chapter 5, the process followed in analysing responses to the email interviews questions, was analogous to grounded theory (Rudestam & Newton, 2001). If a categorisation represented a substantial number of instances that reached 'saturation' level it was retained. Moreover, in terms of these cases, categories that represented a large number of cases were sub-divided. For example, one of the initial categorisation of responses to question one was 'Ethos'. This category was subsequently sub-divided to 'enablers' and 'constraints' such as 'support' and 'conflicts'.

In relation to question two, the data was initially explored holistically. This involved a process of active reading, annotation, and finally the development of categories that embraced the full data set (Dye, 2000). For example, in instances where participants' responses contained reference to their own development during the induction, these responses were annotated as belonging to the same 'personal and professional growth' category. In instances where a categorisation represented a substantial number of instances categories were subdivided. For example, the initial categorisation of 'personal and professional growth' was subsequently sub-divided into 'development of pedagogical skills' and 'development of self -efficacy'. This categorisation process was carried out by the researcher and a research colleague. Following this, the two raters discussed all of the categorised instances drawn from the email interviews. In most cases there was broad agreement on categorisation. When disagreement arose, the raters discussed the features of the relevant instance in depth and subsequently agreed on an appropriate categorisation (Sproule, et al., 2002).

RESULTS

6.3.12. PROFESSIONAL CONTEXT (Question One)

A preliminary analysis of data revealed that participants used adjectives such as ‘demanding’; ‘enjoyable’; ‘supportive’ and ‘fun’ to describe the inductee context. The researchers’ initial observations indicated that participants ‘implicitly’ described their professional context in terms of ‘demands’ such as ‘disruptive’; ‘rewards’ such as ‘enjoyable’ and ‘ethos’ such as ‘professional’. However, it was clear that within the category of ‘ethos’, adjectives such as ‘supportive’ and ‘disruptive’ could be labelled as ‘enablers’ or ‘constraints’ respectively. Based on this observation a (D) Demands- (R) Rewards (E) Enablers- (C) Constraints model was deemed to be the best fit for the data. Table 6.6 provides an overview of participants’ depictions of their professional context within this model. Data generated in response to question one was included under each dimension of the D-R-E-C model when the following criteria were met:

‘Demands’ refers to the nature of the context as experienced by participants’ within their specific induction context such as ‘challenging’ or ‘hard work’

‘Rewards’: refers to positive outcomes of the induction experience such as ‘enjoyable’ and ‘learned a lot’.

‘Enablers’: refers to factors within the induction context such as ‘encouraging’ and ‘supportive’ that may enable participants to manage ‘stress in teaching’.

‘Constraints’: refers to any factor within the induction context such as ‘staff conflicts’ and ‘indisciplined’ that may prevent participants from managing ‘stress in teaching’.

Table 6.6.A Model of Inductee Teachers' Perception of their Professional Context (August 2006-June 2007)

<i>Demands</i>	<i>Rewards</i>	<i>Enablers</i>	<i>Constraints</i>
Demanding	Fun	Professional	Disruptive
Challenging	Enjoyable	Supportive	Staff Conflicts
Hard work	Knowledgeable	Structured	Unsupportive
New	Learning a lot	Experienced	Pressured
Busy	Fulfilled	Dedicated	Exhausting
Complex	Happy	Inspirational	Poor facilities
	Absorbing	Innovative	
	Engaging	Encouraging	
		Friendly	
		Adaptable	

Perception of stress in teaching could be influenced by the balance, or indeed interaction, between demands, rewards, enablers and constraints within the inductees' professional context. All inductees perceived their context as demanding at a number of levels such as 'new', 'busy' and 'complex'. However, it was clear that a range of features of the professional context could either 'enable' or 'constrain' inductees in terms of making teaching 'more' or 'less' stressful.

The majority of inductees described their professional context as rewarding at a number of levels such as 'fun', 'learning' and 'fulfilling'. However, while there were commonalities in Inductee Teachers descriptions of their context, differences were apparent. Extracts 1 and Extract 2 highlight that both inductees described their context in terms of the 'demands' placed on them. However, when each description is considered holistically, within the D-R-E-C model, it is clear one inductee appears to be situated in an (E) 'enabling' context which is also rewarding, while the other implicitly describes their context as (C) 'constraining'.

Extract 1(Male)

(D) Pressured; (R) Fun; (E) Helpful; (E) Supportive; (E) Focussed

Extract 2 (Female)

(D) Challenging; (C) Difficult; (C) Changing; (D) New; (C) Complex

A number of Inductee Teachers described their context specifically in terms of pupils, resources and support at departmental and wider school level (Extract 3 and Extract 4).

Extract 3(Male)

(C)‘In-disciplined’, (C) ‘Unsupportive’ (Senior Management Team), (E) ‘Supportive’ (Principal Teacher) and (R) ‘Fun’.

Extract 6: (Female).

(C) ‘Disruptive’ (behaviour), (C) ‘Poor Facilities’, (C) ‘Unsupportive’ (SMT), (E) ‘Friendly’ (Staff) and (D) ‘Pressurised’ (workload, targets for pupil passing)”

Inductee teachers implicitly described features of the professional context such as ‘support’ and ‘enjoyable’, that could ‘enable’ them to meet the demands of teaching. However, for some Inductee Teachers, features of the inductee context such as ‘disruption’; ‘staff conflicts’ and ‘indiscipline’ could be deemed as constraints. It is suggested that the balance between demands, rewards, enablers and constraints, within the induction context, could impact on Inductee Teachers’ perception of stress in teaching

6.3.13 FACTORS IMPACTING ON STRESS IN TEACHING (Question Two)

Participants implicitly highlighted issues pertaining to ‘perceived support’ and ‘professional ethos’ as factors that contribute to making teaching ‘more stressful’ and/or ‘less stressful’. In addition, a number of factors related to personal and professional growth such as ‘developing content knowledge’ and ‘having responsibility for own classes’, were considered to make teaching less stressful. (Appendix 6.0)

Perceived Support

The majority of inductees indicated that the support of colleagues and opportunity to share experiences with peers (Extract 1) were key factor in making teaching less stressful (Extract 2). On the other hand, while inductees certainly valued the support of

staff within the department and wider school, support from the senior management team (SMT) was experienced as variable (Extract 3 and Extract 4).

Extract 1 (Male)

“...generally, everyone is very helpful and I feel this has allowed me to settle in easily. I also think the interaction with other probationers has helped me greatly”

Extract 2 (Female)

“...having individuals in the department that you rely on for support, guidance and assistance when needed helps a lot”

Extract 3 (Female)

“...the support from other teachers and the SMT is great”

Extract 4 (Male)

“.. the main thing that made teaching more stressful for me were a lack of support from the SMT”

Inductee Teachers also highlighted items pertaining to structural and external support such as ‘covering classes’ for absent colleagues, and attending what they considered to be ‘irrelevant’ Continued Professional Development (CPD) courses added to levels of stress in teaching.

Professional Ethos

Professional ethos comprised responses which implicitly and/or explicitly referenced ‘staff morale’, ‘departmental climate’ and ‘class climate’. Extract 1, summarises one inductees perception of their ‘departmental climate’. In this instance the student experienced their professional ethos as positive and welcoming, and indicated this made teaching less stressful.

Extract 1 (Female)

“...the department I work in is a very positive department they are all young and have welcomed me in. I feel this makes things a lot easier, easier to ask questions and ask for help. The support from other teachers and the SMT is great”

Staff Morale / Departmental Climate

‘Staff morale’ and the ‘departmental climate’ within the induction context, were identified as impacting on perception of stress in teaching. Within the context of this study, a number of inductees experienced difficulties in coping with low levels of staff morale, understanding ‘staff room dynamics’ (Extract 2); and managing ‘staff conflicts’ (Extract 3).

Extract 2 (Male)

“I find it difficult to understand the ‘staff room dynamics’ and at time I feel some members of staff come across as being rude”

Extract 3(Female)

“The department don’t particularly like each other which creates an atmosphere. Presently I feel stuck in middle of two members of the department who do not get on and teach in very different ways. Both confide in me, which puts me in an awkward situation and I feel pressure from both to teach the way they do”.

Class Climate

For some inductees ‘intrinsic’ stressors (Jarvis, 2003) such as ‘low level indiscipline’ and ‘lack of pupil motivation’ impacted on ‘class climate’ and made teaching more stressful. However, in general inductees indicated that ‘getting to know pupils’, ‘engaging with them in extra-curricular activities’, ‘having sole responsibility for their own classes’ and ‘building a good rapport with pupils’, made teaching less stressful. In relation to class climate, it is interesting to note that Inductee Teachers perceived the Teaching Learning Interface as significantly less stressful as they progressed through the induction. For some inductees being in a ‘good school’ with ‘well behaved pupils’ made teaching less stressful (Extract 4). In some instances (mis)behaviour was a

challenge however, the inductee was supported by the department and managed to develop strategies to deal with this source of stress (Extract 5).

Extract 4 (Female)

“...support from the department and a good school where the majority of pupils are well behaved made my job easier, more enjoyable and definitely less stressful”

Extract 4(Male)

“..a steep learning curve and a very busy time. I needed support and received this. I have experienced some very challenging (behaviour) classes but continue to learn different strategies to cope with this ”

It is however, concerning that during the time of this study one inductee expressed concern over high levels of challenging behaviour and had encountered instances of aggressive behaviour.

Personal and Professional Growth

During the time of the induction the main factors contributing to inductee teachers' perception of teaching as quite 'stressful' were 'concerns about discipline', 'workload', 'lack of support from SMT', 'staff shortage', 'job security'. Nonetheless, as they progressed through the induction issues linked to professional ethos, perceived support and personal-professional growth may have served to make teaching less stressful.

At one level, teaching may have become less stressful because inductee teachers gained in experience, and were able to develop their content knowledge (Extract 5) in a wide range of practical activities (Murray-Harvey, 1999). Having more responsibility and autonomy within their professional context could also have made teaching less stressful. It would be expected that these features of the professional context would serve to enhance (or erode) inductee confidence and develop levels of self-efficacy (Extract 6).

Extract 5 (Male)

“at the start of ths induction it was a bit tricky, I just felt my content was lacking,but once you get in the class with the kids your more relaxed, They are your class and you can learn as you go along, you get the chance to teach new activities “

Extract 6 (Female)

“the teachers really helped, they gave me support but let me try out new ideas, I really started to feel more confident, like a real teacher. I knew that I could do it (teach) now“

SUMMARY OF QUALITATIVE FINDINGS

In the context of the induction, the main factors seen as contributing to perception of teaching as ‘stressful’ were ‘concerns about discipline’, ‘workload’, ‘lack of support from SMT’, ‘staff shortage’ and ‘job security’. In addition the professional ethos, and levels of support attributed to the induction context and the personal and professional growth of the Inductee Teacher, played a key role in the perception of stress in teaching.

During the final stages of this study the majority of inductees had been successful in either gaining a full time teaching post while others had been assured employment in a temporary capacity. Findings from this study would suggest that the journey to fully fledged teacher had been successfully negotiated. The phase of the Inductee Teachers’ professional journey had been generally negotiated with relative ease. Extract 7 encapsulates one inductee’s thoughts as they made that final transition to fully fledged teacher:

Extract 8(Male)

“This year I now feel like a teacher. The University tracksuit, the t-shirt and jumper have long gone. I now feel like a professional working in an excellent department”.

6.4 DISCUSSION

6.4.0 INTRODUCTION

The transition from Student to Inductee Teacher can serve to place the newly qualified teacher in a particularly vulnerable, stressful isolated, and at times anxiety inducing position (Bleach, 1998; Mawer, 1995; Tickle, 1994). Graduates enter the profession armed with a range of expectations, and an idealistic vision of what it is to teach and be a teacher (Chambers & Roper, 2000; Hardy, 1995b). In addition the newly qualified teacher brings with them, their views of teaching, which by and large, are based on their most recent and direct experiences within the placement context. As they enter the induction, much is expected of them in terms of a good knowledge of their subject, a grasp of child development, an understanding of how schools operate, and of course the range of pedagogical skills required to meet the everyday challenges of teaching (Cairns & Brown, 1998). The disputed concept of ‘reality shock’ which is considered a direct consequence of a perceived clash between the young teachers’ idealism and the reality of the ‘chalk-face’, can serve to make this professional transition especially stressful (Gorrell, et al., 1980; Huberman, 1993).

This group of postgraduate students entered the induction having previously experienced issues pertaining to Managing Workload; Class Management and Perceived Efficacy as significant sources of stress during their placement. Therefore it would be expected that the transition into the induction year would be less than smooth. On the other hand, the initial euphoria of having made the grade may indeed counteract the extent to which they experience any kind of ‘reality shock’ or indeed stress in teaching. Interestingly, like the younger teachers in Study 1(Chapter 4), this group of inductee teachers did not perceive teaching *per se* as particularly stressful.

6.4.1 GENERAL PERCEPTION OF STRESS IN TEACHING

During the initial and final induction, 50 and 47 per cent of participants respectively, generally perceived teaching as 'not at all' stressful' while between 6 and 13 per cent reported teaching as 'very stressful'. At face value, these findings would suggest that this transition was not as stressful as would be anticipated. Sixty-seven per cent of this group of participants had perceived teaching as 'quite' to 'very' stressful within the context of placement. In contrast, only 24 and 39 per cent perceived teaching as 'quite' to 'very stressful' during the initial and final induction respectively. Moreover, teaching was generally perceived as significantly less stressful as participants made the transition from 'student' to 'inductee' teacher.

This may in part be due to leaving the stress of 'constant performance evaluation' (Mawer, 1995b) behind and in the case of these participants' issues of efficacy relating to their course and indirectly themselves (Chapter 5). On the other hand, it may also be a feature of time, experience and the stage they have reached in their developmental journey (Fuller, 1996; Maynard & Furlong, 1993). In addition the induction would afford them a greater degree of control over their own professional development than experienced during the placement. This change in perception may also be indicative of the degree of 'stability' afforded the inductee teacher, in that they are 'teaching' in one context only, for the duration of the induction. During the course of the postgraduate programme, students were generally placed in three different schools. Moreover, it could be that induction within this Scottish context is meeting its promise of providing the structure and consistency of experience which is crucial to their development during this formative time (Bleach, 1998; Calderhead & Lambert, 1992; McCrone, 2000). Whatever the reasons may be for this marked shift in perception, and in spite of the fact that this time of transition is documented as being particularly stressful (Mawer, 1995), the majority of inductee teachers in this study perceived teaching as 'not at all' to only 'slightly' stressful by the end of the induction.

Interestingly 57 per cent of male participants perceived teaching as ‘not at all’ stressful during the initial induction and by the final stages of the induction, no male participant considered teaching as ‘very’ stressful. In contrast, around one-fifth of females perceived teaching as ‘very’ stressful during both the placement and induction. This may be linked to the fact that female participants entered the induction having found aspects of performance evaluation which remain a feature of the induction, as significantly more stressful than their male counterparts.

6.4.2 STRESS IN TEACHING

Based on the fact that inductees did not generally perceive teaching as stressful, it was expected that they would not find their everyday professional life as ‘stressful’. This was indeed the case. Inductees did not perceive F1: Work Overload; F2: Professional Ethos; F3: Teaching-Learning Interface or F4: Perceived Support as ‘stressful’. However, as the induction progressed they perceived F2: Professional Ethos and F4: Perceived Support as marginally more stressful. In contrast, F1: Work Overload became slightly less stressful, but not significantly so. On the other hand, Inductee Teachers perceived F3: Teaching-Learning Interface (TLI) as significantly less stressful as they progressed through the induction, This was especially evident in relation to female inductees.

Overall Inductee Teachers’ perception of F3: Teaching Learning Interface (TLI) was surprising as much of the literature cites issues pertaining to TLI, such as ‘class room management’; motivating pupils’ and ‘meeting the range of pupil needs’ as sources of stress for inductee teachers (Bleach, 1998; Kyriacou and Kune, 2006; Morran, et al., 1998). Moreover, issues pertaining to class management were a source of stress for this group of students during their final placement. This apparent anomaly may be explained by the inductee teachers’ stage of development, and the impact of experience, in terms of the extent to which they have developed, for example behaviour

management strategies. Moreover, the induction scheme may have provided a level of support that moderates the extent to which inductee teachers perceive these aspects of teaching as stressful. Part of that support may even entail ensuring that the fledgling teacher does not have too many 'difficult' classes on their timetable. On the other hand, findings may indicate that the SITS scale does not fully reflect the initial concerns of the inductee teacher. However, when the same measure was utilised in Study 1 younger teachers who are also in the earlier stages of their career did not perceive teaching *per se* as stressful (Chapter 4, pp).

The sources of stress identified by inductee teachers' everyday professional lives, were broadly reflective of those reported by teachers in Study 1 (Chapter 4). The main sources of stress highlighted were intrinsic (Jarvis, 2003) to the profession and related to Work Overload (WO) and The Teaching Learning Interface (TLI). These were (WO): 'too little time', 'workload' 'deadlines' and (TLI) 'low level indiscipline'; lack of pupil motivation'; 'pupils' manners'. Stressors associated F2: Professional Ethos (PE) and F4: Perceived Support (PS), were generally associated with 'relationships' and 'organisational climate'. These were (PE) 'stressed out colleagues' and 'lack of support from other staff' and (PS) 'poor resources for courses'; 'inefficient line managers' and 'physical school conditions'.

At face value, inductee teachers highlight the same types of 'stressors' as reported by teachers in Study 1. However, it is clear that aspects of teaching such as Work Overload and the Teaching Learning Interface in particular, were merely 'potential' stressors, which were not realised as such within the context of the induction period. Findings highlighted subtle changes in the inductee teachers' perception of Perceived Support in particular, as they progressed through the induction. In relation to issues of support, inductee teachers were initially concerned with the extent to which the physical working environment supported them in their role as teacher. By the end of the

induction 'inefficient line managers' were deemed as a source of stress. This change in perception of support may be indicative of a move from immediate concerns to wider issues of social and emotional support within the professional context. It is interesting to note that 'lack of support from colleagues' on one hand, and 'stressed out colleagues' on the other, were identified as sources of stress for these inductees. It could be that these issues are related, in that 'stressed colleagues' may not have the spare 'resources' to support their young colleagues, and also meet the demands of teaching themselves.

6.4.3. RELATIONSHIP BETWEEN STRESS IN TEACHING AND WELL BEING

Inductee Teachers in this study perceived teaching in much the same way as the 'younger' teachers in Study 1. Neither group perceived teaching as stressful. Based on the findings from Study 1 & 2 where a significant relationship was observed between perception of stress in teaching and well being, it was expected that inductee teachers would not report significant changes in their well being. This was the case.

Fifty per cent of the group did not experience significant changes in well being during the time of the induction. However, between 20 and 47 per cent of participants had experienced problems such as 'feeling under greater strain', 'being less able to concentrate', 'make decisions' and sustain their 'levels of motivation'. Their main concern during the time of the induction was being 'upset by noise'. This appears to be a bit of anomaly, as this specific problem did not feature in the experiences of teachers in Study 1, or students in Study 2. Perhaps, this could be explained by the fact that Inductee Teachers may not be concerned about 'noise level' *per se*, but the fact that this may be seen by others as indicative of not 'controlling' or indeed 'managing' their class. In effect, noise level would draw attention to their efficacy as a 'teacher'.

More than 50 per cent of the group 'felt under constant strain' and 'much more tired' than normal during the final placement. Thirty-five per cent continued to 'feel under constant strain' during the initial induction however, this was not a concern by the final stages of the induction. Around 30 per cent of inductee teachers reported changes in well being that warranted therapeutic intervention. This figure is however, commensurate with what would be expected in a general population (Cox et.al, 1987).

As they progressed from placement and through the induction, inductee teachers experienced significantly less problems with issues pertaining to tension, personal ineffectiveness and loss of control. Females participants, in particular experienced significantly less problems pertaining to personal ineffectiveness and tension during this time of transition. In addition they perceived issues pertaining to the Teaching Learning Interface as significantly less stressful by the final phase of the induction. This finding may suggest perception of the Teaching Learning Interface plays a key role in the perception of teaching as stressful and general well being.

6.4.4. COPING WITH STRESS IN TEACHING

The developmental stage that the inductee teacher has reached may have contributed to their overall perception of teaching as not stressful. It is also possible, that during the time of the induction, they have developed a range of professional and personal strategies which enable them to manage sources of stress within teaching. When faced with demands individuals appraise the significance of these demands in terms of whether they are a threat to them personally and/or professionally. This is followed by a secondary appraisal that evaluates the extent to which they have the resources to meet demands. In the event of a perceived mismatch between demands and resources, a process of coping is activated (Snyder, 1999). Within the context of this study inductee teachers responded to and coped with stress in teaching in a number of ways. These

coping responses included a range of social, professional and personal coping strategies (Murray-Harvey, 1999).

As the induction progressed there was a subtle change in the ways in which inductees coped with stress in teaching. A significant number still indicated that they personally 'felt overwhelmed' however, this responses was still seen as ineffective or indeed maladaptive. In contrast to the initial induction, it was interesting to note that the most effective strategies comprised professional and personal strategies such as 'made sure everything was well planned', 'played sport/trained' and 'took time to relax'. This was in addition to social strategies such as 'used support of school mentor' and 'shared experiences good and bad with other teachers'. This range of strategies was reflective of those highlighted by Murray-Harvey's (2000) study of stress and coping within the Australian undergraduate context. In addition, seeking social support has previously been highlighted by Chan (1998) and Griffith et al., (1999) as the type of strategies adopted by teachers in the Chinese and English context.

Within this inductee study findings support the assertion that teachers tend to cope with stress by utilising palliative strategies (Wilson, 2003). Taking time to relax and playing sport could be termed as indirect , palliative coping and perhaps considered as maladaptive as this would not directly tackle stress associated with issues of 'indiscipline' and/or 'low staff morale'. However, this level of disengagement would be far more counterproductive than the suppression of competing activities (Griffith et al., 1999) linked to 'focussing exclusively' on teaching. Disengaging in terms of relaxing and playing sport was probably seen as effective as these strategies allowed the inductee to re-charge emotionally and physically.

Some responses were considered effective in coping with stress in teaching while others were not. Interestingly, strategies deemed overwhelmingly ineffective where all

personal in nature. This comprised palliative strategies such as 'drinking alcohol', emotion-focussed strategies like 'getting upset/crying' and cognitive strategies such as 'doubting myself' and 'feeling overwhelmed'. These would all be categorised as indirect coping as they do not address the source of stress directly. In addition, 'focusing exclusively on teaching' which would be defined as 'suppressing competing activities' (Griffith et al., 1999) was also seen as ineffective. In contrast to research in the field inductee teachers did not feel that 'keeping things in perspective' was at this point in time, an effective coping strategy for them within the induction context (Johnstone, 1993; Kyriacou, 1987). This may have been influenced by the fact that they often 'felt overwhelmed' and responded to stress by 'doubting themselves'.

SUMMARY

As the induction progressed, participants perceived teaching in general and aspects of teaching such as Work Overload and the Teaching Learning Interface, as considerably less stressful. Not surprisingly, they also experienced fewer changes in normal levels of well being. At the same time, a subtle change in coping behaviour was evident. Coping with the demands of teaching at an emotional and at times cognitive level such as 'getting upset/crying'; 'doubting themselves' and 'keeping things in perspective' remained a feature of the induction and at the same time continued to be seen as ineffective. These may be due to the fact that these responses did not minimise the effects of stress (Snyder, 1999). Moreover, the ineffectiveness of emotion-focussed strategies may reinforce MacDonald's (1993) conclusions that coping with 'internal stresses' were more of an issue for student teachers than coping with the external stresses of teaching. Once inductees had built a social network that may have been a key tool in 'surviving' (Huberman, 1993) the initial transition, a range of effective professional, personal and social strategies enabled participants to cope with stress in teaching during the final phase of the induction.

This change in 'coping' may have impacted on perception of stress in teaching and well being. Just as it is possible that participants perceived teaching as less stressful simply because they were adapting to demands, fine-tuning their pedagogical skills, and generally gaining in experience rather than as a consequence of changes in coping behaviour. On the other hand the development of their repertoire of professional and personal resources, their interactions with significant others and the nature of their professional context may also have played a role in their perception of stress in teaching.

6.4.5. PROFESSIONAL CONTEXT

Inductee teachers perceived their professional context in terms of demands such as 'disruptive', rewards such as 'enjoyable' and ethos such as 'professional'. Within this context a range of factors such as levels of 'support', could be classified as enabling the inductee to cope with stress and the adaptation to the demands of teaching. On the other hand, aspects of the induction context such as 'disruption' could 'constrain' or hinder the inductees efforts to manage the demands of teaching.

In this study, all inductees perceived their context as demanding in terms of challenging. Generally the inductee teacher described their professional context in terms a Demands-Rewards-Enablers-Constraints model of occupational stress. It would be expected that the balance or indeed interaction between demands-rewards-enablers-constraints within each inductee context would impact on perception of stress in teaching. Indeed it has been suggested that the balance between efforts and rewards within the occupational context, and presence of support and/or constraints play a key role in the generation of occupational stress (Gugliemi & Tatrow, 1998). Although inductee teachers described their professional context in terms of 'demands' it was clear that demands could be seen as challenging on one hand and stressful on another. At the same time the extent to which the induction context was seen as 'rewarding'

varied. In some instances the induction context was not described in terms of 'rewards'. In addition some inductee teachers appeared to be situated in a primarily constraining (Extract 1) as opposed to enabling (Extract 2) professional context.

Extract 1(Female)

(D) Challenging; (C) Dififcult; (C) Changing; (D) New; (C) Complex

Extract 2 (Male)

(D) Pressured; (R) Fun; (E) Helpful; (E) Supportive; (E) Focused

Any occupational context that does not reward the individual for their investment or indeed 'efforts', could over time lead to stress. Moreover, while it is clearly documented that certain levels of stress (Hardy, 1995b) such as the challenges of the induction can serve as a motivating and positive force there is no doubt that excessive stress (Wilson, 2003) in the form of an abundance of constraints could impact on perception of stress in teaching. However, in the context of this study although some inductees described their professional context in terms of constraints such as 'disruption'; 'staff conflicts'; 'lack of support'; 'excessive pressure' and 'exhaustion', these did not translate into a perception of teaching as stressful.

6.4.6. FACTORS IMPACTING ON PERCEPTION OF STRESS IN TEACHING

Within the inductee context issues pertaining to perceived support and professional ethos were highlighted as making teaching more and/or less stressful. In addition, the group highlighted a range of factors pertaining to their own professional and personal growth that made teaching less stressful.

In relation to perceived support, the majority of inductees indicated that the support of departmental colleagues, and the opportunity to share experiences with their peers, was a key factor in reducing stress levels. In contrast, while some inductees indicated they

were supported by the Senior Management Team (SMT) during the induction, others experienced a lack of SMT support as a source of stress. The interaction between the individual and their specific context are believed to play a key role in teacher adjustment to the demands of teaching (Fives et al., 2007). Moreover, it has been suggested that low levels of social support can lead to experiences of burnout (Pierce & Molloy, 1990). However, within the context of this study it is clear that levels of support and the interaction between the inductee their professional context and their colleagues in particular have contributed to the inductee perception of teaching as not stressful.

Issues associated with structural and external (Morran et al., 1996) support such as 'covering other teachers' classes' and attending 'irrelevant inductee meetings' were identified as adding to levels of stress during the induction. It is not clear why these factors made teaching more stressful but covering other teacher classes would add to the inductees' workload and possibly erode their professional development time.

For some inductee teachers, a positive professional ethos on one hand and, a professional context imbued by 'conflict' and 'low levels of staff morale' on the other, clearly impacted on perception of stress in teaching. While some inductee teachers indicated that departmental ethos in particular had made teaching less stressful, others experienced significant difficulties in coping with 'staff dynamics' and 'staff conflicts'.

Intrinsic stressors (Jarvis, 2003) such as 'low level indiscipline' and 'pupil motivation' made teaching more stressful for some inductees, However, inductee teachers in general found that 'building a good rapport' with pupils, 'working with them informally during extra-curricular classes' and having 'sole responsibility' for their own classes, made teaching less stressful. It is however worrying that one Inductee Teacher described a 'class climate' defined by high levels of challenging and aggressive

behaviour'. Teacher concerns regarding the issue of 'discipline' have been raised previously within the Scottish context (Dunlop & MacDonald, 2004; Munn et al., 2004).

A number of factors associated with personal and professional growth impacted on inductee teachers' perception of teaching as stressful. At one level teaching simply became less stressful because inductee teachers in general gained in experience and had the chance to develop content knowledge. At another level participants had developed a sense of autonomy, started to develop their own teaching style and effectively negotiated the transition from student to inductee teacher. Against this backdrop lurked a range of concerns pertaining to 'discipline'; 'workload' 'lack of support from SMT'; 'staff shortage'; 'job security' and the extent to which the inductees development may have been hampered due to 'not being given enough responsibility' during the time of the induction.

6.4.7 CONCLUSIONS

In contrast to their final placement, this group of inductee teachers did not perceive teaching as 'stressful' during the induction year. In fact, teaching was seen as significantly less stressful during this time. Sixty-seven per cent of participants reported teaching as 'quite' to 'very' stressful at the time of their final placement. However, as they moved into, and through, the induction only 26 per cent of the group perceived teaching as 'quite' to 'very' stressful. Male participants in particular perceived teaching as significantly less stressful as they made this transition. In contrast one-fifth of female inductees perceived teaching as 'very' stressful during the final placement and the induction year.

Inductee Teachers did not perceive any dimension of teaching such as Work Overload (WO); Professional Ethos (PE); Teaching Learning Interface (TLI) or Perceived Support (PS) as stressful. The main sources of stress identified by the group were (WO)

'too little time', workload', (PE) 'stressed out colleagues';' lack of support from other colleagues'; (TLI) 'low level indiscipline', lack of pupil motivation', (PS) 'poor resources for courses' and 'inefficient line managers'.

Issues pertaining to Professional Ethos and Perceived Support were perceived as slightly more stressful as the induction progressed. In addition, issues pertaining to Workload became less stressful. Interestingly, the group perceived the Teaching Learning Interface as significantly less stressful as they progressed through the induction year. This was especially apparent in relation to female inductees.

Inductees Teachers did not report any significant changes in their normal levels of well being during the time of the induction. However, there was evidence to suggest that some inductee teachers had 'felt under constant strain'; were 'less able to concentrate'; 'less able to make decisions' or 'sustain levels of motivation'. In particular, 49 per cent of inductees had increasingly become 'upset by noise' and 35 per cent had felt 'under constant strain'. Interestingly, while 55 per cent of this group of inductees had 'felt under constant strain' during their placement, no inductee reported this problem by the end of the induction.

Thirty per cent of this group experienced changes in well being during the initial induction which were indicative of requiring therapeutic intervention. Moreover, one fifth of inductees experienced similar levels of tension and somatic problems associated with the clinical population during the initial induction.

As the induction progressed, inductee teachers were less bothered by issues pertaining to 'personal ineffectiveness', 'tension' and 'loss of control'. This was especially apparent in relation to female inductees. In effect, 70 per cent of inductees did not experience significant changes in well being during the induction. This suggests

successful adaptation to the demands of teaching. Or it may be that this is simply as expected in young people who would generally have good health.

During the course of the induction participants utilised a range of social, professional and personal coping strategies. These included 'building positive relationships with staff' and 'pupils' alike. In addition cognitive coping strategies, such as 'confronting problems encountered', were also seen as effective. While personal coping strategies were generally seen as ineffective this was not the case by the end of the induction. At this point in the induction palliative strategies such as 'playing sport/training' and 'taking time to relax' were considered effective. For the inductee the most effective way to cope with stress during the initial induction was to build a social network and confront problems head on. By the end of the induction effective strategies were linked to using the support of the school mentor, planning and disengaging in terms of adopting a range of palliative strategies. It was clear that inductees responded to the demands of teaching at an emotional level and in general the group had difficulty in dealing with these internal stressors.

Inductees perceived the everyday professional context in terms of Demands-Rewards-Enablers-Constraints. It was clear that the interaction, and indeed balance between these elements, played a part in their perception of teaching as stressful. On the whole inductee teachers did see teaching as challenging in terms of the demands they faced. However, the extent to which they gained in terms of 'rewards' was variable. In addition it was clear that some induction contexts were primarily enabling in nature while others were generally constraining. Moreover, a number of constraints pertaining to 'lack of support from SMT'; 'physical school conditions' and 'disruptive behaviour' were a feature of some inductee contexts.

Factors pertaining to professional ethos and perceived support served to make teaching 'more stressful' or 'less stressful' for some inductee teachers. In relation to professional ethos a positive working environment in terms of levels of 'staff morale' was seen to make teaching less stress. In contrast, a professional ethos shaped by 'staff conflict' made teaching more stressful for the inductee teacher. Class climate served to make teaching more stressful when a range of intrinsic stressors such as 'low level discipline' and 'lack of pupil motivation' entered the equation. However, building a good rapport with pupils in general and within extra-curricular classes made teaching less stressful

Support of departmental colleagues and sharing experiences with peers was a key factor in making teaching less stressful during the induction. In contrast, while some inductees felt supported by the Senior Management Team others indicated that a lack of SMT support made teaching more stressful. In addition issues pertaining to structural and extrinsic support such as 'covering other teachers' classes' and attending 'irrelevant inductee meetings' added to inductee stress.

In terms of the impact of personal and professional growth on stress in teaching, it was clear that teaching became less stressful because the inductee teacher gained in experience, had the chance to develop content knowledge, pedagogical skills, and a sense of autonomy in relation to their own classes and their development. In addition, successfully meeting demands encountered during this time, and reaping the rewards of their efforts, may also have served to increase their levels of confidence.

For some inductee teachers, constraints such as 'disruption', 'lack of support' and 'exhaustion' were features of their professional contexts. Nonetheless, as a group they perceived teaching in general, and the Teaching Learning Interface in particular, as significantly less stressful as progressed through the induction year. At this juncture, it is suggested that teaching became less stressful as a consequence of the existence of a

primarily enabling professional context that supported the inductee teacher as they negotiated this phase of their professional development.

6.4.8 LIMITATIONS

The limitations associated with using self-report measures could have influenced findings in terms of the 'authenticity' of responses. At the same time, the fact that email interviews were used could have limited the depth and detail of the data gathered at this point. As the researcher could not follow up on issues raised many salient issues pertaining to 'stress within the inductee context' could have been missed. In addition, the selection of sample 'extracts' and the categorisation of qualitative data could also have influenced the way in which participants experiences were represented. However, the main aim of the research was to place perception of stress in teaching within the Scottish context. Consequently, the quantitative dimension of the study provided the greatest contribution in terms of overall findings. The preliminary findings pertaining to 'professional context' provided the researcher with the opportunity to generate baseline data that could (and will) inform future study. One other possible limitation is that we only have one view of the professional context in which the inductees were situated. It would have added another dimension to the study if inductee teachers' views could have been triangulated with those of their fully-fledged counterparts

6.4.8 FUTURE STUDY

This final study clearly indicates that students who had found teaching as significantly stressful during their final placement had successfully negotiated the induction phase of their developmental journey without detriment. In fact the induction was a significantly less stressful experience for them all together. It would of course be imperative to follow this group into the future, and on a long term basis, to track their perception of stress in teaching as they continue through their professional journey. Within this study

it was clear that responses to the demands of teaching ranged from those that could be classified as coping (Snyder, 1999) and those that may be deemed as maladaptive in that they were not effective (Griffith et al., 1999). In particular a significant number of inductee teachers responded to stress in teaching at an emotional level which reflected a level of internal stress. While this did not result in inductee teachers perceiving teaching as stressful, future study should consider exploring the relationship between managing emotional responses to stress and perception of stress in teaching in a range of contexts, and in relation to teachers at different developmental stages in their professional journey.

CHAPTER 7

GENERAL DISCUSSION AND CONCLUSIONS

7.0 INTRODUCTION

This chapter comprises five sections. Section 7.1 provides a brief summary of the background to the research. Section 7.2 explores the main findings and conclusions from each of the three studies that are part of this thesis. These are organised under the headings of 'Perception of Stress in Teaching'; 'Relationship between Stress in Teaching and Well Being' and 'Factors Impacting on Perception of Stress in Teaching'. To provide a Scottish Perspective of 'stress in teaching' section 7.3 summarises the conclusions drawn from the Teacher, Student Teacher and Inductee-Teacher Study. Section 7.4 provides a preliminary insight into the combination of factors contributing to Middle Managers and Postgraduate Students' perception of teaching as 'stressful' and Inductee Teachers' perception of teaching as 'not at all' to only 'slightly' stressful. Section 7.5 outlines the implications of the main research findings and makes recommendations for future study.

7.1 BACKGROUND

Stress as a concept, notoriously defies definition and is considered as an intangible phenomenon (Behr & Franz, 1987; Cooper & Dewe, 2004). Moreover, it is suggested that perception of stress in teaching varies according to the educational, cultural, social and political climate in which the teacher is situated (Kyriacou, 2001). Consequently, this presented the researcher with a number of dilemmas in terms of how to research an intangible concept within an educational context. In addressing such dilemmas 'stress' in teaching was defined as a psychological 'state' (Cox & Ferguson, 1991) arising from an interactive process which was underpinned, in the first instance, by the teacher's appraisal of demands and, secondly their perception of their capacity to manage such demands (see Chapter 1, pp 4-5). Within the context of teaching, demands could be linked to intrinsic

aspects of the job, such as workload and the teaching learning interface. Both of these dimensions of teaching could serve as potential ‘stressors’ in terms of the demands they place on the teacher. At one level these sources of stress could be considered ‘challenging’ and at another ‘threatening’ (Cooper et al., 2001; Doublet, 2000). Stress can occur if demands outweigh teachers’ professional and personal resources. Stress *per se*, is notoriously difficult to measure objectively, however it is generally recognised that this ‘state’ can manifest itself at a physiological, psychological and /or behavioural level. If this stress is acute, chronic and/or cumulative in nature, this can compromise individual well being (Laughlin, 1984; Mahmood, 1999; Travers & Cooper, 1996). This conceptual framework underpinned the three empirical studies reported in this thesis.

Within the thesis each study was designed to explore perception of stress in teaching within the Scottish context. More specifically, the research sought firstly to gauge the extent to which teachers across a range of developmental stages perceived their profession as stressful, and secondly, to identify factors which impact on perception of stress in teaching. In addition, the relationship between perception of stress in teaching and well being was also explored. Teachers within the Scottish context had previously reported that they believed there was a link between stress in teaching and well being (Dunlop & MacDonald, 2004). Therefore, this study provided a means of exploring this relationship further. To achieve this, Secondary School Teachers, Student Teachers (Physical Education) and Inductee Teachers (Physical Education) were invited to share their views and experiences of stress in teaching. The next three sections of this chapter provide an overview of the main findings from each of the three studies.

7.2. THE TEACHER PERSPECTIVE (STUDY 1)

7.2.1 PERCEPTION OF STRESS IN TEACHING

There is a general consensus that teaching is indeed one of the high stress professions (Cooper, 1998; Travers & Cooper, 1996 & Troman, 2000) although others would argue that 'teacher stress' is simply a social construction or representation (Jarvis, 2003). In spite of conflicting accounts as to the extent to which teaching is stressful, this topic continues to court media attention and is recognised as a worldwide phenomenon (Antiniou, Poluchroni & Walters, 2000; Boyle, 1990; Borg; Falzon & Baglioni, 1995; Chan, 2002; Laughlin, 1984). Indeed when teachers were invited to consider the extent to which teaching was 'stressful' in a range of studies, it was reported that around one-third to one-quarter of teachers rated their profession as 'very' to 'extremely' stressful (Borg, Riding & Falzion, 1991; Chan, 2002; Gold & Roth, 1993; Pierce & Molloy, 1990).

In contrast, 92 per cent of (secondary school) teachers within the study reported in this thesis (Chapter 4) perceived the profession as 'quite' to 'very stressful'. Moreover, 57 per cent of teachers perceived the profession as 'very' stressful. This figure is certainly higher than that reported in previous studies including a recent study within the Scottish context in which 44 per cent of teachers rated teaching as 'extremely' stressful (Dunlop & MacDonald, 2004). These findings however, should be treated with caution as the study reported in this thesis (Study 1) used a different rating scale to gauge perception of stress in teaching. Nonetheless, it should be noted that one out of every two teachers selected the highest option available, indicating teaching was 'very' stressful. In addition, while Dunlop and MacDonald (2004) surveyed teachers from the primary, secondary and special education sector, this study only included Secondary School Teachers. Furthermore, the timing of the teacher study (Study 1) coincided with one of the 'main' stress points in the secondary school calendar.

Nonetheless, while it is accepted that 'stress' is not unique to the profession of teaching (Wilson, 2003) these findings suggest that teaching is indeed perceived of as a stressful

profession within this specific Scottish context. A closer examination of teacher perception of stress pertaining to their everyday professional context, indicated not surprisingly, that their general perception of the profession as 'stressful' was reflective of their perception of stress pertaining to their everyday professional life at the 'chalk-face'.

There are conflicting accounts of the nature and causes of stress in teaching (Carlyle & Woods, 2002; Chan, 2002; Cosgrove, 2000; Cooper, 1995; Kyriacou, 2001). However, within this Scottish context 'stress in teaching' was perceived as four dimensional in nature. Sources of stress were associated with Work Overload (WO); Professional Ethos (PE); Teaching Learning Interface (TLI) and (PS) Perceived Support. This group of teachers perceived the Teaching Learning Interface in particular, as a significant source of stress. Issues pertaining to Work Overload were also perceived as stressful. Professional Ethos and Perceived Support were not sources of stress for teachers as a group within the context of this study.

However, it was clear that 'workload' and 'too little time' which are recognised as features of quantitative overload (Cooper et al., 2001; Kahn, et al., 1964) were a source of stress. A mismatch between demands in terms of actual workload and time available to meet these demands appeared to impact on teacher perception of teaching as stressful. In addition, aspects of the Teaching Learning Interface were perceived as significantly more 'stressful' than any other dimension of teaching. In fact, the main sources of stress for teachers within this study were 'indiscipline' followed by 'lack of pupil motivation' and 'low level indiscipline'. Moreover, 62 per cent of teachers indicated that they found pupil 'indiscipline' as 'very' stressful on a daily basis.

These findings support recent conclusions that issues of discipline are an area of concern within the Scottish context (Munn et al., 2004). Moreover, a recent national survey exploring teacher health and well being within the Scottish context concluded that secondary school teachers in particular, indicated that 'discipline' was a significant source of stress for them (Dunlop & MacDonald, 2004). It is interesting to note that this

study also reported that teachers considered there was a relationship between the extent to which they found 'teaching' stressful and their perception of their general health.

7.2.2 RELATIONSHIP BETWEEN STRESS IN TEACHING AND WELL BEING

In recent times 'stress' has been cited as one of main reason for teacher retirement through ill health. In addition the issue of stress within teaching continues to be linked to concerns regarding teacher retention and recruitment (Brown & Ralph, 1998; Dunlop & MacDonald, 2004; Jarvis, 2003). It is recognised that the manifestations of stress, also called symptoms or signs, can cause further stress resulting in a host of psychological problems such as general distress, anxiety, panic, depression to low level functioning, low self-esteem, lack of confidence as well as a range of physical problems (Chan, 2003; Cox, 1984; Kyriacou, 1987). Over time, and if stress is cumulative and chronic in nature, this could lead to burnout which has been associated with teacher early retirement through ill health (Muller et al., 2005).

However, the impact of 'stress' can be mediated and/or moderated by teachers' perceptions, previous experiences, attitudes, beliefs, personality, coping efforts and social support within the workplace (Carlyle & Woods, 2002; Griffith, et al.,1999; Wilson, 2003). While this study did not seek to establish causal relationships between perception of stress and well being it did set out to further consider Dunlop and MacDonald's (2004) conclusions that some teachers believed there was a relationship between health on one hand and stress in teaching on the other. On this basis, it was therefore assumed that teachers who report high level of stress would invariably experience changes in normal levels of well being. As 'stress' is believed to manifest itself at a physiological; psychological and/or behavioural level it was appropriate to utilise the General Health Questionnaire (GHQ-30) and the Glasgow Symptom Checklist (GSC) as measures of 'stress'. In addition, the inclusion of these two measures enabled the research to compare teacher perception of stress with a general and (Scottish) clinical population.

Based on the fact that 57 per cent of teachers considered the profession as 'very' stressful it was not entirely surprising to find that as a group they also reported significant changes in normal levels of well being. Overall more than 60 per cent of the group had felt 'much more tired' and 'under constant strain' during recent weeks. In addition, 56 per cent of teachers experienced changes in well being (GHQ) that are considered indicative of requiring therapeutic intervention. This proportion was significantly higher than the 30 per cent that would be expected in a general population (Cox et al., 1987). At the same time, 45 per cent of teachers experienced similar problems in relation to issues of 'personal ineffectiveness', such as being 'unable to make decisions' and 'making more mistakes' than usual normally associated with a Scottish clinical population (Mahmood, 1999).

It was established the issues pertaining to Work Overload and the Teaching Learning Interface in particular had the greatest impact on teacher perception of well being. In other words, teachers experiencing these aspects of their work as stressful also experienced significant changes in their normal level of well being. It is of concern that for some teachers, these changes were reflective of a clinical population, suggesting that therapeutic intervention was required.

7.2.3 FACTORS IMPACTING ON PERCEPTION OF STRESS IN TEACHING

Occupational Stress has been associated with a range of factors which are intrinsic to the occupation, such as workload and the role of the individual in the organisation; career development; organisational structure and climate; relationships at work and the home-work interface (Cooper et al., 2001). Within teaching, gender, years of teaching experience, size of school, and role are believed to be some of the factors that can influence the extent to which the profession is seen as 'stressful' (Laughlin, 1984; Travers & Cooper, 1996). The demands of teaching which constitute potential sources of stress have been classified in a number of ways. Griva and Joeke (2003) classify 'stressors' as

first and second order in nature. First order stressors are those that could interfere directly with teacher efforts to manage demands such as 'indiscipline'. While second order stressors such as 'pay concerns' would not be perceived as impacting directly on their daily interactions. In addition stressors can be classified as intrinsic; extrinsic; systemic and organisational in nature (Jarvis, 2003). Within the study reported in this thesis (Study 1) the main sources of stress for teachers appeared to be intrinsic and first order in nature. This may be as a consequence of the research instrument (Stress in Teaching Scale) being designed to ascertain aspects of teaching, which are considered stressful within the teachers' everyday professional life. Subsequently, this may have limited the range of 'stressors' identified to those that are primarily intrinsic to the profession.

The extent to which teachers in this study perceived aspects of teaching stressful, varied according to age, years of teaching experience and current role. Age and years of teaching experience were considered to be reflective of the passage of time while teachers were either class teachers; middle managers or senior managers. In relation to the passage of time, younger teachers who by virtue of their status also had less years of teaching experience did not perceive teaching as stressful. In contrast, teachers aged 40-65 and teachers with 16 years and more of teaching experience perceived teaching as 'very' stressful. In addition, younger teachers perceived issues pertaining to Work Overload and the Teaching Learning Interface as significantly less stressful than their more experienced and older colleagues. Teachers with 25 and more years of teaching experience and middle managers perceived Work Overload as very stressful. Interestingly, middle managers also perceived issues pertaining to Professional Ethos and Perceived Support such as 'low staff morale' and 'insufficient non contact time' respectively as significantly more stressful than teachers with 1 to 5 years of teaching experience.

Differences in perception of stress in teaching were also reflected in the extent to which teachers reported changes in normal levels of well being. Middle Managers who generally fell into the 40+ 'age group' and had 16-24 'years of teaching experience' perceived

teaching as 'very' stressful. In addition, they also reported changes in well being indicative of requiring therapeutic intervention (Cox, et al., 1987), even when a more rigorous cut off score was set to ensure this measure was more robust. Moreover, middle managers experienced significantly greater feelings of personal ineffectiveness and depression than senior managers during the time of the study. It was also apparent that feelings of personal ineffectiveness and levels of anxiety increased with the passage of time, but this was mainly an issue with teachers who had 16-24 years of teaching experience. These teachers would be considered to be mid-career and within this context were primarily in the role of middle manager.

It has been suggested that that the individual's role in their occupation and their stage in their career can impact on perception of stress (Travers & Cooper, 1996). In particular stress can occur when there is evidence of 'role conflict'; 'role ambiguity', and if the specific role involves taking responsibility for others (Cooper et al., 2001). Middle Managers are responsible for their departments, colleagues and all aspects of teaching and learning. In effect, they are teachers and managers at one and the same time. When their perception of stress within their everyday professional life was examined more closely, it was clear that their perception of stress could have been influenced by a degree of 'role conflict' and 'role ambiguity' (Travers & Cooper, 1996; Kahn, et al., 1964).

Within this study, all teachers perceived aspects of workload and the teaching learning interface such as 'too little time'; 'workload'; 'indiscipline' and 'lack of pupil motivation' as stressful. However, it was clear that an additional range of Work Overload stressors which were 'systemic' in nature (Jarvis, 2003; Cosgrove, 2000) impacted on middle managers' perception of stress in teaching. In particular, 'inclusive education'; 'changing demands'; 'curriculum changes'; and 'overload of new ideas' were considered 'stressful'. Interestingly, Middle Managers were the only group to indicate that 'inclusive education' was stressful. Moreover, in contrast to class teachers and senior managers, who reported

'indiscipline' as their main source of stress, the main source of stress for middle managers was 'changing demands'.

Change within education has previously been highlighted as impacting on the extent to which teaching is seen as 'stressful' (Jennings & Kennedy, 1996; Travers & Cooper, 1997). Incessant change following on from the 1988 Educational Reform Act, followed by a perceived lack of support during the process of implementation and the ensuing demands of 'curriculum' change, were all cited as significant sources of stress for teachers within the English context (Brown & Ralph, 1998; Travers & Cooper, 1997). Moreover, it has been highlighted that when systemic stressors such as those associated with 'change' join forces with stressors intrinsic to teaching, this can impact on perception of stress in teaching, and on the ethos within schools (Jennings & Kennedy, 1996). Middle Managers are accountable to their Senior Management Team (SMT), responsible for their departmental colleagues and charged with implementing curriculum initiatives at the 'chalk-face'. Moreover, they are balancing the demands of being a teachers and manager at the same time. It is conceivable that, as they balanced the demands of both roles, they experienced a level of 'role ambiguity' and 'role conflict', which subsequently impacted on their perception of teaching as stressful.

The middle managers' perception of teaching as stressful and changes in their normal levels of well being may be an indicator of the cumulative impact of stress. Within this study middle managers cited a total of 13 different aspects of Work Overload and the Teaching Learning Interface as significant sources of stress, on a daily basis. It is perhaps not surprising that this group of teachers perceived teaching as 'very' stressful' when they are charged with implementing 'change', managing this number of daily stressors and in addition, supporting and managing their colleagues in their efforts to manage the demands of teaching.

It has been highlighted that when 'systemic' stressors such as those associated with 'change' join forces with stressors intrinsic to teaching, this combination of factors can

impact on perception of stress in teaching, and the ethos within schools (Jennings & Kennedy, 1996). It is therefore interesting to note that middle managers found issues pertaining to Professional Ethos and Perceived Support such as 'low staff morale' and 'institutional politics' and in addition, 'insufficient non contact time' and 'management indifference' as sources of stress. These findings added another complex layer to the middle managers everyday professional circumstances and further explained their perception of teaching as 'stressful'.

It is recognised that the organisational climate and support within this (Griffith, et al., 1999) can impact on perception of stress in teaching. The 'ethos' of the professional climate and levels of 'support' within this, can impact on teacher efforts to manage the demands of the profession. In effect, professional climate can either enable or constrain the teacher as they strive to manage demands. Within the context of this study, it would appear that middle managers perception of Professional Ethos and Perceived Support suggests that they are situated in a 'primarily' constraining context. The nuances of their everyday professional circumstances and the interaction between a range of intrinsic and systemic stressors such as the 'teaching learning interface' and 'change' may have culminated in a degree of quantitative and qualitative overload, and in addition 'role ambiguity', which is generally associated with occupational stress (Cooper et al., 2001).

Against this backdrop, it is not entirely surprising that middle managers in particular, experienced significant changes in normal levels of well being, and in addition feelings of personal ineffectiveness and depression. However, it is concerning that these 'changes' were indicative of warranting therapeutic intervention (Goldberg, 1987) and, reflective of the concerns reported by a Scottish population who were currently attending an outpatient psychology clinic (Mahmood, 1999). However we should bear in mind that, although teachers within this study were asked to reflect on their well being in recent weeks, it is possible that some underlying health issues or personal factors, such as the home-work interface, may have contributed to these findings. Then again, middle managers'

perception of teaching as stressful and changes in normal levels of well being may be a consequence of the interaction between intrinsic stressors, such as Work Overload, and the Teaching Learning Interface, systemic stressors associated with ‘change’ and all that comes with this and, in addition organisational stressors pertaining to professional ethos and perceived support (see Figure 7.1). Findings would suggest that, within the context of this study, middle managers appear to be stretched beyond their adaptive capacities. It is of concern that the feelings of personal ineffectiveness reported by middle managers specifically has been identified as a significant factor in the development of symptoms of burnout (Friedman, 2000).

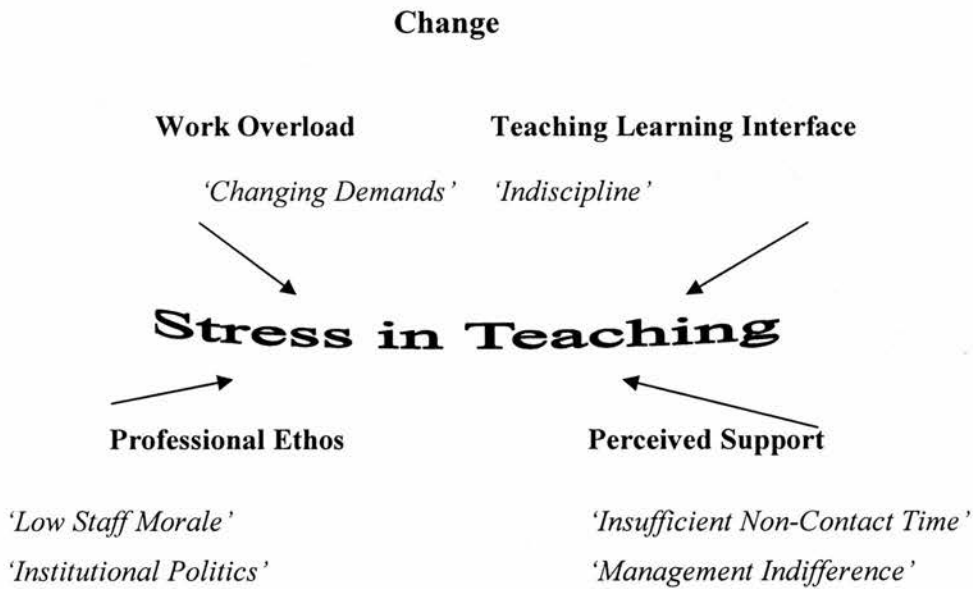


Fig 7.1. Understanding Middle Managers’ Perception of Stress in Teaching within the Scottish Context

7.3. THE STUDENT-TEACHER PERSPECTIVE (STUDY 2)

7.3.1 PERCEPTION OF STRESS IN TEACHING

The notion of student teacher 'stress' is a somewhat contested concept. There is evidence to suggest that student teachers experience more or less the same levels of stress as the fully-fledged teacher (Conway & Clarke, 2003; Kyriacou & Kune, 2007). In contrast, others have highlighted that levels of stress experienced by student teachers are not as high as that experienced by their in-service colleagues (Gorrel et al., 1980). However differences in perception of and responses to 'stress in teaching' may be attributed to the developmental complexity of the journey on which students and teachers embark (Fuller, 1969; Maynard & Furlong, 1993, Wendt & Bain, 1989). In addition the impact of occupational socialisation of the development of teaching identities is well documented (e.g., Capel, 2005; Green, 1998; Lawson, 1986; McCormack, 1997; O'Bryant et al., 2000;). Depending on what stage the student has reached in their development perception of stress in teaching could be a feature of a desire to 'cope and survive' (Behets, 1990), 'be accepted' (Mawer, 1995) and/or 'meet others expectations' (Borgess, McBirde & MacGuire, 1988). Normally this journey would be marked by a gradual shift in concerns about self in terms of their own performance, to task concerns such as planning and finally impact concerns which would see them shift focus to the learner (Conway & Clarke, 2003; Maynard & Furlong, 1993).

Within the context of this study it was clear that the majority of students perceived teaching as 'quite' stressful. Overall, 79 per cent of student teachers generally perceived the profession as 'quite' to 'very' stressful while 22 per cent indicated teaching was 'very' stressful'. Comparatively, speaking this group of students did not consider teaching as stressful as their fully-fledged colleagues (Study 1). This could in part be due to the fact that each group of teachers is at very different points in their developmental

journey and consequently there will be variations in the length of time in which they have been immersed in teaching. Nonetheless, in comparison to a recent study within the English context which concluded that 46 per cent of undergraduate students considered teaching as 'very' to 'extremely' (Chaplain, 2008) it is interesting to note that only 22 per cent of student teachers in this Scottish context perceived teaching as 'very' stressful.

Within the study reported in Chapter 5 of this thesis student teachers perceived stress in teaching as four dimensional in nature. Sources of stress were associated with Performance Evaluation; (PE) Professional Interactions (PI); Managing Workload (MW) and Class Management. (CM). The main sources of stress were (PE) 'having high expectations of own performance'; 'being observed and evaluated by the University Tutor'; (PI) 'delivering the lesson'; 'communicating ideas and concepts to pupils'; (MW) 'coping with overall workload'; 'managing placement related assignments'; (CM) 'managing the class and enforcing discipline' and 'helping pupils with emotional and behavioural difficulties'.

These sources of stress are generally associated with self-concerns such as having 'high expectations of own performance' and task-concerns such as 'delivering the lesson'. Broadly speaking they are very similar to those identified in a range of studies: 'meeting expectations' (Borgess et al., 1988) 'evaluation anxiety' (Capel, 1994), 'constant performance evaluation' (Head, et al., 1996); 'coping with overall workload' (Murray-Harvey, 1999); 'coping and surviving' (Behets, 1990); 'completing lessons plans in the required format'; 'meeting the variety of pupil needs' (Capel, 1996); and 'controlling classes' (Hardy, 1995a).

Stress associated with being an ITE student was perceived of as four dimensional in nature: Course Demands (CD); 'Perceived Efficacy' (PE); 'Personal-Professional Interface' (PPI) and Perceived Support (PS). Overall the main sources of stress pertaining to being a student were (CD) 'assignments'; 'exams'; (PE) 'lack of status' 'others expectations', (PPI) 'finances'; 'keeping fit'; (PS) 'lack of academic support' and

‘availability of course materials’. In contrast to a range of studies, which suggests that the demands of being student can be a stress inducing experience, this group of students did not perceive any dimension of student life as stressful. (Kipping, 2000; Millings-Monk & Mamhood, 1999; Prymachok & Richards, 2007).

Within the context of this study, the extent to which participants perceived teaching and being a student as ‘stressful’ varied significantly in relation to level of study within ITE and gender. In contrast to the group, 91 per cent of the postgraduate cohort perceived teaching as ‘quite’ to ‘very’ stressful, while just over half of postgraduate cohort generally perceived teaching as ‘very’ stressful. Moreover, postgraduate students perceived issues relating to teaching such as Performance Evaluation, Managing Workload and Class Management as significant sources of stress. The BEd4 group also perceived certain aspects of teaching as more stressful, than their junior undergraduate colleagues. This may of course be attributed to the fact that the BEd4 and postgraduate group were completing their final placement and, at this point, their future career as a teacher was at stake. Interestingly, female participants found the performance evaluation associated with teaching and the demands of the ITE course significantly more stressful than their male counterparts.

7.3.2 RELATIONSHIP BETWEEN STRESS IN TEACHING AND WELL BEING

While teaching in general and specific dimensions of teaching such as Performance Evaluation; Managing Workload and Class Management, appeared to be ‘stressful’ for students it was clear that being an ITE student was not perceived as especially stressful. On the basis that the group generally perceived teaching as ‘quite’ stressful it was anticipated that they would not report significant changes in normal levels of well being.

For 60 per cent of the group this was indeed the case. However, 40 per cent of students reported feeling ‘under constant strain’, one-fifth experienced levels of ‘tension’ and feelings of ‘loss of control’ normally associated with a clinical population. Overall 30 per

cent of students experienced changes in normal levels of well being indicative of requiring therapeutic intervention. These differences in perception of well being were attributed to the level of study within ITE. Differences in feelings of tension were apparent in relation to gender. Students in the final year of undergraduate programme (BEd4) and those enrolled on the postgraduate course reported significant changes in well being during the time of the study. The postgraduate group and the BEd4 cohort experienced significant changes in general well being and in particular feelings of personal ineffectiveness such as 'making more mistakes than usual' and 'being unable to make decisions', than the BEd2 and BEd3 cohort. While both the BEd4 and postgraduate group experienced similar changes in well being, it is clear that the BEd4 did not find any dimension of teaching more stressful than the postgraduate group. The changes in well being experienced by the BEd4 group may be due to the high stakes nature of their final placement. In addition they are conducting and completing a significant research dissertation as part of their final year undergraduate programme during the final placement.

The fact that almost half of postgraduate students perceived teaching as 'very' stressful and also perceived issues pertaining to Performance Evaluation, Managing Workload, Class Management and Perceived Efficacy as significant sources of stress could explain why this group reported significant changes in well being.

7.3.3 POSTGRADUATE PERCEPTION OF STRESS IN TEACHING

Generally students consider placement as the most significant and important part of their ITE course (Clement, 1999; D'Rozario & Wong, 1999; Locke, 1979; Morton, Vesco, Williams & Awender, 1997). The level of significance they attach to this venture can be a source of stress in terms of challenging the student and fuelling their desire to do their best. It is acknowledged that stress of this nature within the placement context can indeed be a good thing. However, this can be counter-productive if the student is overly

concerned about their future (Mawer, 1995). It should be noted that, while all students in the Scottish context are guaranteed a one year induction programme, this rite of passage is gained only if they meet the demands of teaching during placement. This entails meeting the required range of professional demands such as 'classroom management'; 'workload'; 'time management' and 'building relationships' while adapting to a climate of constant performance evaluation at the same time (Boyle, Borg, Riding & Falzon; 1991; Kyriacou, 1987).

To explore why postgraduate students found some of these professional demands as significant sources of stress, they participated in individual semi-structured interviews. Postgraduate Students are required to make the same adaptations and meet the same demands within the teaching arena as any undergraduate student. However, the one crucial difference is that their developmental journey is somewhat accelerated, largely school based, and some would argue by default more intense and stressful (Cairns & Brown, 1998; Head et al., 1996). On the other hand the opportunity they have to consolidate practice in consecutive placement is not afforded the undergraduate student. Having completed one placement undergraduate students must wait for six months to one year before they have the opportunity to build on and consolidate earlier teaching experiences.

Intensity aside, within the teaching context the postgraduate student found aspects of Performance Evaluation; Managing Workload and Class Management as stressful. Similar to the Teachers in Study 1, 'time pressures' and 'workload' were a source of stress. This quantitative overload was attributed to the amount of planning, preparation and evaluation required during the time of the placement. Managing pupil behaviour was a factor that students generally equated with demanding and/or difficult schools. However student experiences of managing 'poor behaviour' varied considerably. Overall, it appeared that postgraduate students perception of stress in teaching was shaped by their 'adaptation to performance evaluation'; 'adaptation to the demands of teaching' and in

addition 'adaptation to a range of expectations'. They entered the teaching arena with their own expectations of themselves and what it is to be a teacher. In addition, during the course of the placement the expectations of significant others such as teachers and tutors played a role in shaping the postgraduate students' perception of stress in teaching.

Adapting to Performance Evaluation

Performance Evaluation was a source of stress for all undergraduate and postgraduate students. Moreover, female students found this dimensions of teaching significantly more stressful than their male counterparts. In relation to postgraduate students adapting to Performance Evaluation played a key role in their perception of teaching as stressful. This group of students found adapting to 'constant evaluative scrutiny'; 'evaluative feedback' and the 'formal university evaluations' stressful. If we consider they entered the teaching arena with underlying issues of efficacy then it is not entirely surprising that adapting to evaluation of any kind was stressful. As they learn to teach, students do so at the centre of a cyclic process of observation-evaluation-feedback-reflection and action. The transaction between the student and the teacher/tutor during this time serves to provide a measure of the student's progress and indeed efficacy as teacher. The outcome of these multiple transactions and the manner in which they are managed by teacher/tutor and students appeared to impact on the postgraduate students' perception of stress in teaching.

In relation to 'constant evaluative scrutiny' the group found being constantly under the microscope as stressful and, in particular, found it hard to find and develop their own teaching style within this context. With time some students did adapt to this level of constant evaluative scrutiny. However, for others that adaptation was often made more difficult due to the variability in teaching styles that students attempted to 'emulate'. It is recognised that vicarious experience which would involve observing others teachers and how they teach can enhance self –efficacy, and that this experience is an integral part of learning to teach. In addition, it is also highlighted that student teachers have a desire to

fit into and be accepted within the teaching context. It is possible this desire to 'fit in' became problematic for students as they experienced a range of approaches to and views of how best to teach. Naturally advice given would be expected to be replicated by the student in practice. Consequently, students within the context of this study, found themselves in a situation where they are adapting to constant evaluative scrutiny and, at the same time, as attempting to fit in with, at times, conflicting expectations and views on how best to teach.

In line with research in the field, formal university evaluations were an overwhelming source of stress and constant source of worry for postgraduate students (Capel, 1996, Mawer, 1995). Interestingly an exploration of student placement concerns within the Singaporean context highlighted that the formal overtones of the university evaluation may have increased levels of student stress (Murray-Harvey, Sillins & Saebel, 1999). This was also an issue for postgraduate students as they adapted to this type of formal evaluation. The fact that university evaluations normally only take place twice during the placement may have added to levels of stress. Nonetheless, it would be expected that as students move through consecutive placements, they would have adapted to this type of pressure. Within this study that adaptation appeared to be influenced by the way in which each student approached this situation and the variability in teaching context and tutor supervisory style.

Within this evaluative context, some students engaged in a level of internal dialogue and indeed rumination which served to make the university evaluation 'very' stressful. This is not surprising as the student would be trying to deliver a competent lesson, interact positively with their class and, at the same time, second guess the significance of the tutor's actions. On the other hand some students found that when they moved from the initial acute awareness of the tutor's presence, and focussed on pupil reaction to and engagement with the lesson this approach lessened the 'stress' value of the formal evaluation. This shift in focus from self to learner has been associated with levels of

confidence. Moreover, Capel, Leask & Turner (1995) assert that the levels of confidence required to make such a shift can take some time to develop. However, within the context of this study, postgraduate students by and large were concerned about their own performance and indeed their ability to 'survive' the formal university evaluation.

Supervisory style adopted by the tutor during the formal university evaluation, appeared to influence the extent to which the evaluation was perceived as stressful. While, stress associated with this evaluation would be a feature of the interaction between students and tutors it was clear that tutor approach either added to or dissipated stress associated with this evaluation. The group as a whole indicated that stress levels reduced when the university tutor was 'approachable'; 'put them at ease'; provided 'constructive feedback' and explained 'how things could be done better'. At another level, and perhaps linked to issues of 'efficacy', formal evaluations were less stressful when the university tutor was 'aware of the students' context' and 'willing to give them a chance'.

Self-efficacy can play a key role in the perception of stress and it is suggested that this can be enhanced by what Bandura (1997) conceptualises as 'verbal persuasion' and 'vicarious experience'. Within the teaching context, verbal persuasion and vicarious experience would take the form of 'evaluative feedback' and 'observing and learning from teacher practice' respectively. Postgraduate students actively sought out feedback during placement and saw 'evaluative feedback' as crucial to their professional development. However, their adaptation to evaluative feedback could have contributed to their perception of teaching as stressful.

Feedback is obviously a feature of the formal university evaluation. However, on a daily, lesson by lesson basis, the student is situated at the centre of a cyclic process of observation-evaluation-feedback-reflection-action. Their sense of efficacy and mastery is inextricably linked with this process. It was clear that the transaction between student and teacher (tutor) during this process impacted on the extent to which the postgraduate student perceived teaching as stressful. Their efficacy as teacher is dependent on their

capacity to firstly, absorb this feedback, take this on board and effectively put the advice given into practice. In general, adaptation to evaluative feedback was stressful for these postgraduate students on the basis of sheer volume of information to take on board, extensive points for action, the extent to which feedback was constructive or negative, and seen by the student as 'confirming' others expectations of their 'low status'.

Adapting to Demands of Teaching

All student teachers encounter the same type of personal and professional demands associated with learning to teach as they enter the teaching arena. In that respect, the postgraduate student is no different that any other student teacher other than they have to meet these demands in a relatively shorter time than students who follow a four year undergraduate programme. These demands involve managing the workload associated with teaching, managing their classes and within the context of their class, managing discipline. Within this study postgraduate students perceived 'managing workload' as a significant source of stress. Managing the workload associated with an ongoing cycle of planning, preparing and evaluating was stressful for the group as a whole. Meeting these demands appeared to be stressful on the basis that the volume of work was not congruent with the time available. In addition, a perceived lack of content knowledge and apparent lack of confidence in their ability to differentiate content appropriately resulted in student teachers investing more and more time in planning and preparation. Demands associated with workload and managing classes have been identified within this thesis as potential and actual sources of stress for any teacher. However, the student teacher's credibility and efficacy as teacher is gauged on the extent to which they manage 'content' and 'pupils'.

Adapting to Expectations

In addition to perceiving a number of dimensions of teaching as stressful it appeared that efficacy issues associated with being part of a new PGDE course was a significant source of stress for the postgraduate students. Entering the teaching arena under the veil of a set

of assumptions about the status of their course and a consensus that they would not be as well prepared as their undergraduate colleagues, may have impacted on the group at a number of different levels. In some instance the expectations of significant others, such as Teachers (and Tutors), were shaped on the basis that the PGDE student would be less well prepared and certainly lacking in context knowledge. Consequently the expectations placed on students appeared to be greater in an attempt to counteract any deficiencies. While this was not the case across the board it is conceivable that this would place students under greater stress. At the same time students shared a conviction that they were charged with proving the worth of the PGDE course. While this is a perhaps an unconscious decision by students it is clear that their efficacy as teacher and the efficacy of the course, will be in this context, very difficult to separate. It is clear that the interaction between issues of efficacy such as 'low status' and 'others' expectations' had ramifications and certainly impacted on the extent to which the group perceived teaching as stressful. Moreover, these issues permeated their experiences of teaching at every level, and it is argued contributed to making their adaptation to the demands of teaching more challenging.

Perception of teaching as 'very' stressful may simply be a feature of a one-year primarily school-based postgraduate course (Cairns & Brown, 1998; Head, et al., 1996). Alternatively, this may be a product of an interaction between issues of Perceived Efficacy and the range of stressors pertaining to Performance Evaluation; Professional Interactions; Managing Workload and Class Management (see Figure 7.2). Within the context of this study, efficacy issues appeared to be directly linked to a general scepticism and resistance to change that appears to have risen from the ranks due to the introduction of the PGDE course into a long established tradition of preparing teachers through the undergraduate route. Time will tell if postgraduate students in the future will encounter the same issues of efficacy and whether this will remain an integral part of their perception of stress in teaching. It is suggested that within the context of this study the

issues of efficacy influenced others expectations of the postgraduate student and, in turn, the students' expectations of themselves. When these ingredients are added to the issues surrounding the status of P.E in general it is not surprising this group found teaching 'very' stressful (Armour & Jones, 1998; Evans et al., 1996; Fitzclarence & Tinning, 1991). With this rather shaky foundation on which to build, adapting to the demands of teaching and adapting to performance evaluation and there correlates may have placed the postgraduate student in a vulnerable, and perhaps threatening, situation. It is not surprising that teaching was perceived as 'very' stressful' especially when we consider the postgraduate cohort also had real concerns about their context knowledge and pedagogical resources (See Figure 7.2)

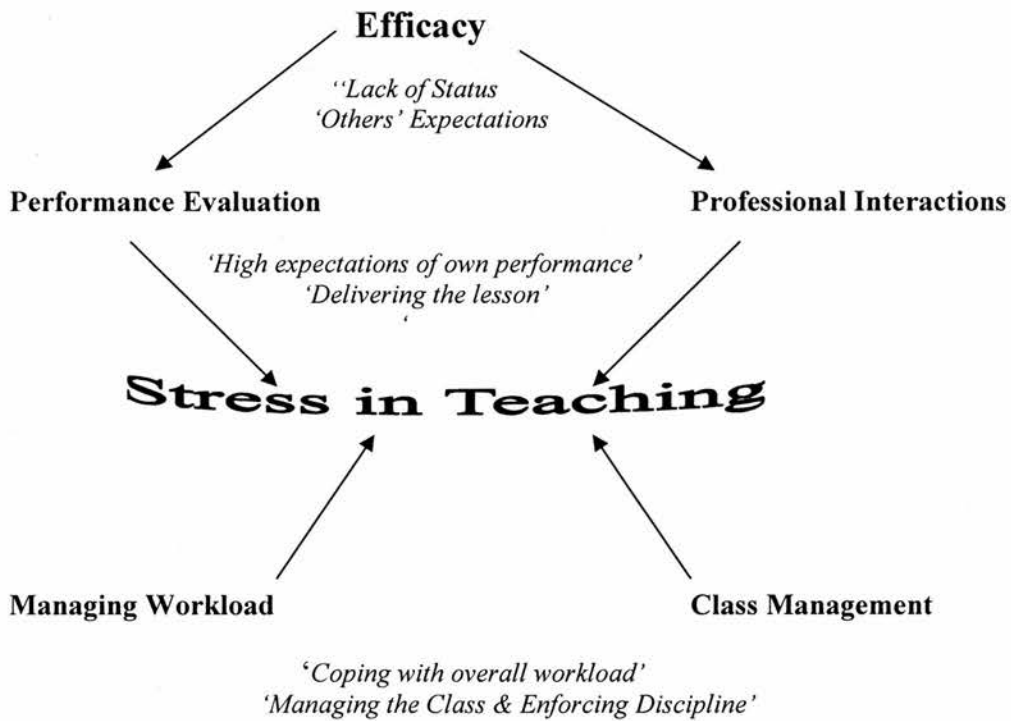


Fig.7.2 Postgraduate Students' Perception of Stress in Teaching within the Scottish Context

Perhaps, the postgraduate students' perception of teaching as very stressful and their experiences of significant changes in well being were indicative of a mismatch between demands and perceived resources. This scenario would, over time, lead to a psychological state of 'stress' and if this remained acute, or was chronic and cumulative in nature, it

would be expected that this would manifest itself at a number of levels (Fives et al., 2007). Postgraduate students' perception of stress in teaching appeared to be exacerbated by the perceived lack of status of their course and their own and others expectation which were shaped in some ways by issues of efficacy. The efforts required by postgraduate students to adapt to the demands of teaching and to all aspects of performance evaluation, while negotiating a complex layer of expectations and issues of efficacy, may explain why teaching was perceived as 'very' stressful by 50 per cent of the group (See Figure 7.2).

7.4. THE INDUCTEE-TEACHER PERSPECTIVE (STUDY 3)

7.4.1 STRESS IN TEACHING

The extent to which the inductee teacher (Newly Qualified Teacher) experiences stress associated with teaching is a matter of dispute. In particular, some would argue that this time of transition is akin to 'reality' shock (Huberman, 1993), while others conclude that new teachers certainly do not experience the same levels of stress as their experienced counterparts (Gorrell et al., 1980). Nonetheless there is a general consensus that this period of induction, can place the young teacher in a vulnerable, stressful, isolated and at times anxiety inducing position (Bleach, 1998; Mawer, 1995; Tickle, 1994).

As postgraduate students entered the induction with a perception of teaching and a number of dimensions of teaching in particular as 'very' stressful, it was expected that this transition would not be smooth. It was therefore surprising to find that during the initial induction only 24 per cent of inductees generally perceived teaching as 'quite' to 'very' stressful. While this figure rose to 39 per cent towards the end of the induction, this was significantly lower than the 91 per cent reporting teaching as 'quite' to 'very' stressful during the final placement. In effect, as the postgraduate group progressed from the placement and through the induction they perceived teaching *per se* as significantly less stressful.

Inductee Teachers did not perceive any dimension of teaching such as Work Overload (WO); Professional Ethos (PE); Teaching Learning Interface (TLI) and Perceived Support (PS) as stressful within their everyday professional context. This is in stark contrast to the teachers in Study 1, who perceived aspects of Work Overload and the Teaching Learning Interface in particular as very stressful. It was also interesting to note that, while this group had found aspects of teaching such as 'Managing Workload' and 'Class Management' as stressful during the placement, this no longer seemed to be the case during the induction year.

The main sources of stress for inductee teachers were (WO) 'too little time'; 'workload'; 'deadlines'; (PE) 'stressed out colleagues'; 'lack of support from other staff'; (TLI) low-level indiscipline'; 'lack of pupil motivation'; 'pupils manners';(PS) 'poor resources for courses'; 'inefficient line managers' and 'physical school conditions'. While we know that Inductee Teachers, unlike their teacher counterparts in Study 1, did not perceive teaching *per se* as stressful ,there is a similarity to the aspects of teaching which both groups perceived as their main sources of stress.

7.4.2 RELATIONSHIP BETWEEN STRESS IN TEACHING AND WELL BEING

Findings from the teacher and student teacher studies reported in Chapter 4 & 5 indicated a general conviction that teaching was stressful and, aspects of teaching pertaining to Work Overload and the Teaching Learning Interface, were significant sources of stress equated with changes in well being. This was especially apparent in the case of teachers who were middle managers (Study 1) and students who were enrolled on the postgraduate programme (Study 2). As Inductee Teachers perceived teaching as 'not at all' to only 'slightly' stressful, it was not surprising to find that almost half of the group did not experience changes in normal levels of well being. Nonetheless, between 19 and 38 per cent of inductees reported that they found it 'difficult to make decisions'; were 'losing concentration' and 'motivation' during the time induction. However, while 55 per cent of this group had 'felt under constant strain' during the placement; this fell to 38 per cent during the initial induction. Interestingly, no inductee 'felt under constant strain' during the final phase of the induction. In addition, while half the group felt 'much more tired' than normal during the placement this was not a feature of their induction experience.

It was, however, strange to note that by far the main problem experienced by inductee teachers was feeling much more 'upset by noise'. Within the Glasgow Symptom Checklist (Mahmood, 1999) this item is associated with feelings of personal ineffectiveness. Although some groups of teachers (Study 1) and students (Study 2) experienced a range

of problems related to feelings of personal ineffectiveness being 'upset by noise' was not considered a problem. It may be that students would not be 'upset by noise' as they always had a supervising teacher in class with them and, in some ways, this may have served to keep noise levels down (perhaps not in all cases). However, for the Inductee Teacher in sole charge of their classes 'noise' may perhaps be seen as a sign that they are not managing the class and indirectly this could impact on their efficacy as a teacher.

As expected the changes in well being reported by inductees indicated that, as a group, they were experiencing fewer changes in normal levels of well being than would be expected in a general population (Cox, et al., 1987). Moreover, the proportion of the group reporting changes in well being indicative of requiring therapeutic intervention fell from 42 per cent during placement to 35 per cent during the time of initial induction. However, no inductee fell into the category by the end of the induction which was a significant change. Inductees did not experience the same levels of problems normally associated with a clinical population, such as feelings of personal ineffectiveness, depression, tension and anxiety. Moreover, the levels of tension experienced by inductee teachers changed significantly over time. While 53 per cent of this group reported similar levels of tension to the clinical population during placement, this dropped to 33 per cent during the initial induction. By the final phase of the induction, no inductee experienced levels of tension similar to the clinical population. Moreover, inductee teachers experienced fewer problems associated with feelings of personal ineffectiveness and loss of control as they progressed through the induction.

SUMMARY

Inductee Teachers perceived teaching as significantly less stressful in general and, in particular, the Teaching Learning Interface was considered significantly less stressful as they progressed through the induction. As expected this change in perception was reflected in their perception of their well being. In effect, as perceived levels of stress

decreased, inductee teachers experienced considerably fewer changes in normal levels of well being.

Female inductees perceived the Teaching Learning Interface as significantly less stressful over time. In addition they also reported significantly less changes in normal levels of well being and levels of tension as they progressed through the induction. This finding is somewhat contrary to the literature which suggests the females and females in secondary schools in particular, tend to report higher levels of stress (Kovess et al., 2006). There may of course, be many reasons why female inductees in particular reported less changes in well being over time such as they are not under the same level of constant evaluative scrutiny as they were during the placement. However, it is interesting to note that this change sits side by side with their perception that the Teaching Learning Interface had become significantly less stressful during the time of the induction.

7.4.3 FACTORS IMPACTING ON STRESS IN TEACHING

Personal and situational factors such as coping and organisational climate/context (Chan, 2002; Cooper et al, 2001 Griffith et al., 1999) can impact on perception of teaching as stressful. Coping refers to a range of 'strategies' that can be activated to manage demands or stress within our personal and professional life. Individuals may respond to stress in a variety of ways including dealing directly with the source of stress. Alternatively they may utilise a range of coping strategies that indirectly deal with the source of stress. Over time individuals develop a range of coping resources which may include strategies linked to the notion of direct and indirect action. However, it is suggested that unless our means of coping, effectively reduce the physical; emotional and/or psychological correlates of stress, then these strategies cannot technically be considered as coping (Snyder, 1999, p. 5).

Coping with Stress in Teaching

There is a general consensus that coping resources can serve to mediate or moderate (Griffith et al, 1999) stress and that normally these strategies are activated when we appraise a situation as 'stressful' (Snyder, 1999). Situations are appraised as stressful when the individual believes they do not have the resources to meet demands. This mismatch between demands and resources can be stress inducing, especially when demands encountered are perceived as a threat to self-efficacy and well being (Kyriacou & Sutcliffe, 1978; Kyriacou, 2001). In the case of the student teacher, self-efficacy would be inextricably linked with others and their own judgements of their teaching performance during the placement.

Within this study it was interesting to note that just as perception of stress in teaching (and well being) changed over time so did the ways in which inductee teachers coped with the demands (and stress) of teaching. In common with much of the research in the field, this group of inductees found social strategies such as 'building positive relationships with colleagues and pupils alike' as effective in coping with stress. However, a subtle shift in the ways in which inductee teachers responded to and coped with the demands of teaching took place as the induction progressed. Inductee Teachers coped with demands by developing a support network during the initial induction. By the final phase of the induction they had added a range of professional and personal strategies to their coping repertoire. These involved active planning such as 'planning well' and palliative strategies such as 'playing sport' and 'relaxing'. Palliative strategies could be considered as maladaptive (Griffith et al., 1999; Wilson, 2003) as they do not deal directly with sources of stress. However it is clear that 'playing sport' which may be indicative of disengagement from sources of stress as in demands (Griffith, et al., 1999) may have provided an opportunity for the individual to re-charge at both a physical and emotional level, and adapt to demands.

Inductees identified a range of ways in which they coped with stress in teaching. Some such as those pertaining to building social support and actively planning were clearly 'coping' strategies, in that they were considered as effective in coping with stress in teaching. However, it was clear that Inductee Teachers; responded to stress in teaching at a number of levels. In contrast to research in the field cognitive or rational responses such as 'keeping things in perspective' (Kyriacou, 2001) were considered ineffective. This could be based on the fact that during the initial induction a large number of inductee teachers indicated they responded to stress in teaching by feeling 'overwhelmed' and 'doubting themselves'. These responses would be considered as maladaptive on the basis that these strategies do not address the source of stress directly, or enable the inductee teacher to manage their emotional response to that stress. Moreover, they would not be considered as 'coping' (Snyder, 1999).

Within the context of this study it was not possible to statistically prove a relationship between perception of stress in teaching and coping. However, the changing landscape of inductee teacher coping may go some way to explaining why this group of teachers perceived teaching as significantly less stressful as the induction progressed. This may also clarify why they experienced significantly fewer changes in normal levels of well being during this transitional period. However, it is clear that inductee teachers responded to stress in teaching in a number of ways that may be considered maladaptive. In particular, stress in teaching impacted on the inductee at an emotional level in terms of 'feeling overwhelmed' and 'doubting themselves'. It is suggested at this point that ability to manage the emotional correlates of stress can impact on perception of stress in teaching (MacDonald, 2003). If the individual has difficulty in dealing with stress this can often be attributed to cognitive vulnerability in that they are more prone to self doubt and this can increase levels of stress (Chorney ,1998) Within the context of this study, inductee teachers experienced the emotional impact of stress in teaching just like the Australian students in MacDonald's (1993) study. However, this did not result in a

perception that teaching was stressful. This may be explained by the fact that they had built up a support network during the initial phase of the induction and, in addition, developed their personal and professional resources to such an extent that their adaptation to the demands of teaching was less problematic.

Professional Context

The way in which the individual manages as in coped with demands encountered can impact on perception of stress in teaching. However, it has also been suggested that the context in which we operate can influence the extent to which we perceive, for example teaching, as stressful (Cooper et al., 2001; Fives et al., 2007). In particular, the professional climate, and indeed levels of support within this, have both been highlighted as impacting on levels of stress. The relationship between support commonly termed as 'social support' (Griffith, et al., 1999) and teacher stress is a somewhat contested notion. On one hand 'support' within the professional context is considered to have a significant effect on levels of burnout (Pierce & Molloy, 1996) and efficacy (Fives, et al., 2006). While others, such as Sheffield et al (1994), indicate that levels of social support do not impact on teacher stress or indeed psychological well being. Nonetheless, a study which explored teacher stress, well being and coping within the English context, concluded that social support can moderate the impact of stress on well being. Moreover coping and social support can impact on the extent to which we perceive demands inherent to teaching as stressful in the first place (Griffiths, et al., 1999).

A range of models of occupational stress provided an indication of the aspects of the professional context mostly likely to lead to stress in teaching. In a situation where our 'efforts' to manage demands outweigh the benefits or 'rewards' gained from these encounters, then stress can be an outcome. Moreover, it had also been argued that perception of stress is dependent on the interaction between the demands we encounter, and the aspects of our occupational context which either support or hinder our efforts to meet these demands (Karasek & Theorell, 1990; Travers & Cooper, 1996).

Within the context of this study, inductee teachers described their professional context in terms of *demands* such as ‘challenging’; *rewards* such as ‘enjoyable’; *enablers* such as ‘support’ and *constraints* such as ‘disruptive’. Of course the nuances of the professional context would vary from individual to individual. At the same time it should be noted this general overview may differ from that of the inductee teachers who elected not to participate in this final phase of the research.

Nonetheless, it was clear that all inductees perceived their professional context as demanding at a number of different levels such as ‘busy’ and ‘complex’. In addition, the majority of the group implicitly described the rewards they gained during this time such as ‘learning’ and ‘enjoyable’. However, a degree of variability was evident in terms of the extent to which contexts were enabling and/or constraining. While some inductees appeared to be situated in a primarily enabling (e.g., ‘supportive’ and ‘focussed’) context, others described their context as generally constraining (e.g., ‘changing’ and ‘complex’).

Within any occupational context the interplay between demands and rewards could play a key role in the generation of stress. The extent to which teaching is perceived as stressful could be influenced by the absence of rewards and/or presence of constraints with the professional context. However, at this moment in time, although a degree of variability in terms of support is evident within the inductee context, this did not result in teaching being viewed as more stressful over time. This would indicate that, in relation to this study, the balance between efforts and rewards was underpinned primarily by enablers, such as ‘support’, as opposed to constraints such as ‘staff conflicts’.

7.4.4 FACTORS IMPACTING ON STRESS IN TEACHING

During their final placements this group of teachers perceived Class Management and Managing Workload in particular as significant sources of stress. However, within the context of the induction they implicitly highlighted that aspects of Perceived Support and Professional Ethos made teaching ‘more’ or ‘less’ stressful. In addition, it was evident

that a range of factors linked to their Personal and Professional Growth and, in addition, their own interactions within their professional context, had played a part in making teaching less stressful during this time.

Perceived Support

Inductee Teachers indicated that ‘support of their colleagues’ and ‘opportunity to share experiences with peers’ certainly served to make teaching ‘less stressful’ during the course of the induction. This was reflective of research in the field that indicates that social support can play a key role in reducing stress in teaching (Chan, 2002; Griffith, et al., 1999, Murray-Harvey et al., 1999). On the other hand, the level of support experienced from the Senior Management Team was varied. For some inductee teachers’ support from the SMT made teaching ‘less stressful’. In contrast, others found a lack of SMT support as a major source of stress.

The level of support afforded some Inductee Teachers appeared to be compromised by structural issues related to staff absence. In some cases this resulted in inductees ‘filling in’ for absent colleagues and losing part of their continued professional development (CPD) time. In addition, there was a feeling that attending ‘irrelevant’ CPD meetings was a source of stress. These are issues that had previously been raised within the Irish context (Bleach, 1998).

Professional Ethos

The general professional ethos within departments and the wider school were identified as factors which made teaching more and/or less stressful. Inductees Teachers highlighted that ‘staff morale’; departmental climate’ and ‘class climate’ impacted on perception of stress in teaching. Not surprisingly a positive and welcoming ethos within departments served to make teaching less stressful. On the other hand, ‘staff morale’ and ‘staff conflicts’ clearly impacted on perception of stress in teaching. Some Inductee Teachers

indicated that in general, 'staff morale' made the whole teaching experience less stressful and indeed 'enjoyable'. On the other hand, for a number of Inductees highlighted issues pertaining to low levels of 'staff morale'; 'staff dynamics' and 'staff conflicts' certainly made teaching more 'stressful'. It is not surprising that Inductee Teachers perceived issues such as 'staff conflicts' as stressful. Their personal and professional development is largely dependent on the 'good will' of others (Mulholland, 2004). Learning to teach can only be made more stressful if this takes place within a climate perhaps lacking in good will due to 'staff conflicts' and/or 'low staff morale'.

Within their own classes the inductee teacher was complicit in developing a positive professional ethos (class climate). At times a number of intrinsic stressors such as 'low level indiscipline' and 'lack of pupil motivation' made teaching more stressful. Implicitly, inductees highlighted a link between less stress, 'good' schools'; 'good behaviour' and 'support'. Inductees indicated that 'getting to know pupils'; 'engaging with them in extra-curricular clubs'; 'building good relationships with pupils' and 'having sole responsibility' for their classes' made teaching less stressful.

Personal and Professional Growth

Issues pertaining to Perceived Ethos and Perceived Support in general, within the inductee context served to make teaching less stressful especially as the induction progressed. However, a number of other factors pertaining to Personal and Professional Growth enabled the inductee to adapt to the demands encountered during this time. Part of this adaptation could be attributed to the development of a social network and a range of coping resources. However, teaching appeared to become less stressful as inductee teachers gained experience and developed their context knowledge across a range of activities. In addition, having sole responsibility for their own classes enabled them to develop a sense of autonomy and control within their professional lives. Overcoming challenges, growing in confidence and perhaps leaving concerns over the 'low status'

associated with being a postgraduate student within this Scottish context behind, may have made teaching appear ‘less stressful’. It is generally acknowledged that individuals’ who have a degree of control and autonomy within their occupational context (Kristensen, 1995) and, in addition, are immersed in an environment that is supportive at one level and rewarding at another, are less likely to experience less stress. (Travers & Cooper,1996).

The inductee teacher had adapted to the unique demands (Hendry, 1976, Al Mahodinni & Capel, 2007) of teaching what is often seen as a marginalised and low status subject (Armour & Jones, 1997),.It may be that he contrast between inductee teachers’ perception, of stress associated with their final placement and the induction experience explains why the group perceived teaching in general and the Teaching Learning Interface as significantly less stressful as they progressed through the induction. Alternatively it could be argued that potential sources of stress such as workload did not realise themselves as such due to the fact that inductees developed their coping resources and rewards gained for their efforts in meeting the demands of teaching outweighed constraints such as ‘workload’ (see Figure 7.3).

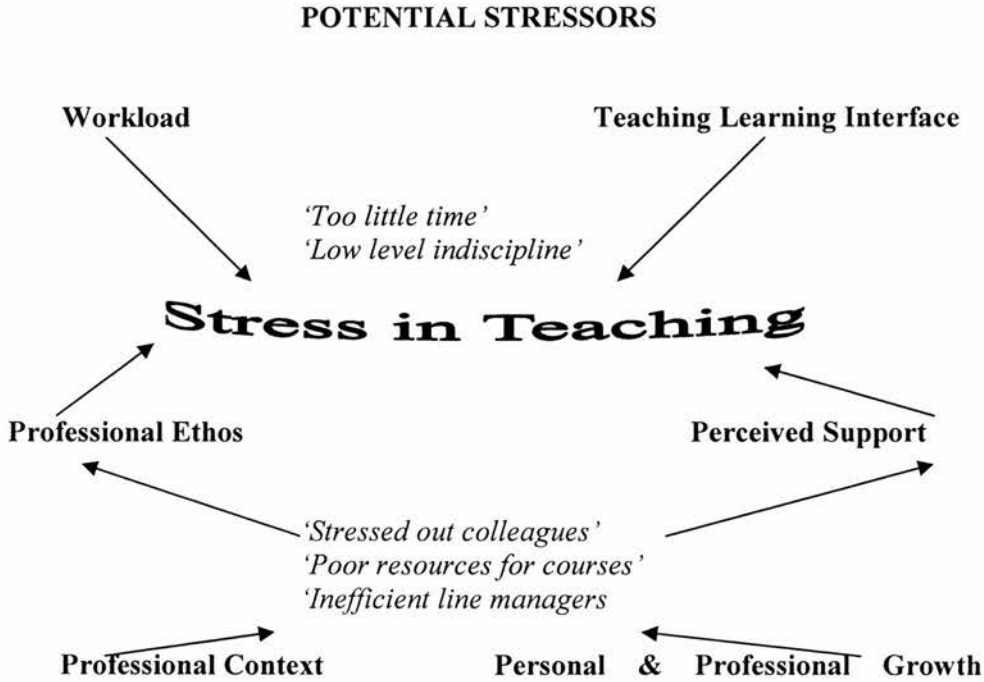


Fig 7.3 Inductee Teacher Perception of Stress in Teaching within the Scottish context

It is suggested that inductee teachers perceived teaching as less stressful during the time of the induction as they appeared to be situated in primarily enabling professional contexts, which generally supported them in their efforts to meet the demand of teaching. In effect a range of personal (coping) and situational (professional context) factors had culminated in a level of personal and professional growth which enabled them to make their transitions with relative ease (See Figure 7.3).

7.5. STRESS IN TEACHING: A SCOTTISH PERSPECTIVE

An exploration of the holistic experiences of the two groups of teachers who considered teaching as ‘very’ stressful’ and the group of teachers who considered teaching as ‘not at all’ to only ‘slightly’ stressful provided further insight into differences in perception of teaching as ‘stressful’ .

It may appear a little risky to compare middle managers, postgraduate student teacher and inductee teachers’ perceptions of stress in teaching when we consider that they are all at different points on their developmental journey. Each group of teachers has their own biography and their perception of stress in teaching is shaped by different experience of and dalliances with, the profession of teaching. This comparison is made more problematic by the fact that the Teacher Study was entirely quantitative in nature and primarily considered perception of stress in teaching and well being. This study did not explicitly gather information pertaining to professional context or coping. However, what the three groups do have in common is firstly they are (or will be) secondary school teachers and they all operate within a Scottish context. In addition each study was underpinned by generic research questions (Chapter 2) designed to place perception of stress in teaching within a Scottish context.

Within the context of this study general perception of teaching as ‘stressful’ varied significantly according to current role, level of study and the passage of time as did the extent to which the various dimensions of teachers’ everyday professional circumstances were seen as ‘stressful’. In addition current role, level of study and the passage of time also impacted significantly on experiences of changes in normal levels of well being.

Middle Managers and postgraduate students in particular perceived teaching as ‘very’ stressful. These specific groups of ‘teachers’ may be at very different points in their developmental journey however just over 90 per cent of Middle Managers and Postgraduate Students perceived teaching as ‘quite’ to ‘very stressful’. On this basis it was expected the postgraduate cohort would find the transition into the induction year

less than smooth. This was not the case. Only 24 and 39 per cent of inductee teachers reported teaching as 'quite' to 'very' stressful during the initial and final induction respectively. A closer examination of how each of these three groups perceived 'stress' associated with their everyday professional circumstances provided a preliminary insight into a combination of 'factors' which may explain the difference observed in their perception of stress in teaching.

7.5.1 STRESS IN TEACHING

The main sources of stress for middle managers, postgraduate students and inductee teachers were broadly related to issues of Workload and the Teaching Learning Interface. However, there were subtle differences in the nature of the main sources of stress for each group. Middle Managers like inductee teachers perceived issues pertaining to role overload such as 'too little time' and 'volume of work' as main sources of stress. However, the interaction between additional primarily systemic 'stressors' such as 'inclusive education'; 'changing demands'; 'curriculum changes' and 'overload of new ideas' explained why middle managers in particular, perceived teaching as 'very' stressful. These were not issues which featured in the inductee teachers' perception of stress in teaching which of course could be attributed to their 'newly qualified status' or indeed the fact that they were simply teachers and not managers at the same time. It would be expected that systemic stressors such as 'changing demands' would not feature explicitly in the experiences of the postgraduate student in particular. However, to their stage of development it is certain that they would be facing 'changing demands' and certainly an 'overload of new ideas'.

The main sources of stress for postgraduate students were related to issues pertaining to Performance Evaluation; Managing Workload and Class Management. Due to their stage of development Performance Evaluation and, in particular 'having high expectations of their own performance' and 'being observed and evaluated by the University Tutor' were

significant sources of stress. This may have contributed to their general perception of teaching as 'very' stressful. Evaluation *per se* also features in the lives of teachers and inductees. Middle Managers will take part in professional appraisals and the inductee experiences ongoing evaluations which are part of reaching the 'Standard for Full Registration' (GTCS, 2005) as teacher within the Scottish context. Nonetheless, it is certain that middle managers and inductee teachers perception of teaching as 'stressful' will not be so inextricably tied up with the 'constant evaluative scrutiny' identified by student teachers in general and postgraduate students particularly as a significant source of stress.

While the postgraduate students' perception of stress in teaching was of course significantly influenced by their adaptation to Performance Evaluation, it is interesting to note that all three groups of teachers perceived similar aspect of the Teaching Learning Interface as sources of stress within their everyday professional context. For example, postgraduate students found 'managing the class and enforcing discipline' and 'helping pupils with emotional and behavioural difficulties' as sources of stress. This is reflective of the types of issues within the Teaching Learning Interface which were identified as sources of stress by Teachers and Inductee Teachers alike. However, here the similarity ends. Inductee Teachers did cite issues such as 'indiscipline' and 'lack of pupil motivation' as sources of stress. However, in contrast to middle managers and postgraduate students they did not perceive the issues pertaining to the Teaching Learning Interface as particularly stressful. This is one possible explanation for the marked differences in perception of stress in teaching between middle managers and postgraduate students on one hand and inductee teachers on the other.

The main sources of stress for all three groups emanated from issues pertaining to Work Overload and the Teaching Learning Interface. However, Inductee Teachers perceived this aspects of teaching as significantly less stressful as they as the made the transition from student to teacher.

7.5.2 Professional Ethos, Perceived Support, Perceived Efficacy and Stress in Teaching

Each group of teachers are immersed in their own unique professional contexts. Issues pertaining to Work Overload and the Teaching Learning Interface were to varying extents sources of stress for all three groups. However, a number of 'additional' factors entered the arena in which individuals' perceptions of teaching was shaped, defined and re-defined. In effect, Professional Ethos, Perceived Support and Perceived Efficacy impacted on perceptions' of stress in teaching.

The Postgraduates Students' perceptions of stress in teaching were influenced by issues pertaining to Performance Evaluation and Perceived Efficacy. It is argued that the interaction between each of these factors, issues pertaining to Workload and the Teaching Learning Interface shaped their perception of stress in teaching.

It would appear that in the case of Middle Managers when pressures associated with change entered the arena of their professional context, which is defined by 'low staff morale', 'lack of support from others' and 'management' in particular and join forces with the stresses of Work Overload and the Teaching Learning Interface' then teaching can but only be perceived as 'very' stressful.

Postgraduates Students like Middle Managers perceived the profession as 'very' stressful. This group of pre-service teachers had to contend with issues such as 'lack of status' and 'others' expectations which were a feature of Perceived Efficacy. This was in addition to the demands of Performance Evaluation; Managing Workload and Class Management. It is suggested at this juncture that this group perceived teaching as 'very' stressful as a consequence of their efforts to adapt to 'evaluation', manage the demands associated with teaching in a climate which was underpinned by concerns over 'efficacy' and indeed the status of the PGDE course. Consequently, as they adapted to 'demands' they were not only charged with proving their efficacy as 'Teacher' but also with proving the efficacy of the PGDE course.

Inductee teachers like middle managers and, to some extent, postgraduate students identified similar aspects of teaching pertaining to Workload and the Teaching Learning Interface as their main sources of stress. However, there the similarity ended. These issues were relatively speaking the main sources of stress for Inductees Teachers but, in reality, did not realise their potential as 'stressors'. In fact inductees did not perceive Workload and the Teaching Learning Interface *per se* as stressful. Moreover they perceived the Teaching Learning Interface in particular as significantly less stressful as the induction progressed. Interestingly the issues highlighted by Inductee Teachers, pertaining to Professional Ethos and Perceived Support which could serve to make teaching 'more' or 'alternatively 'less' stressful, were reflective of the experiences of Middle Managers, namely 'low staff morale' and 'lack of support from SMT'. However, once again they did not realise their potential as 'stressors' within the inductee context. Moreover, inductees indicated those aspects of 'staff morale', the 'departmental/school climate' and indeed their 'class climate' made teaching less stressful. Support from departmental colleagues and sharing experiences with peers also played a part in making teaching 'less' stressful.

Moreover issues relating to efficacy impacted on the inductee teachers' perception of stress in teaching just as it had when they were Postgraduate Students completing their final placement. The difference this time was attributed to personal and professional growth, the development of their range of coping resources and, it could be argued, the support that came with a primarily 'enabling' working environment. Inductee Teachers appeared to have developed a sense of self-efficacy which could but only impact positively in terms of their adaptation to the demands of teaching. Consequently, as Inductee Teachers negotiated this phase of their professional development, teaching was perceived as significantly less stressful.

One other important difference was observed during this study in relation to Middle Managers, Postgraduate Students and Inductee Teachers. Middle Managers and

Postgraduate Students who perceived teaching *per se* as very stressful also reported changes in well being indicative of requiring therapeutic intervention. In addition, they also experienced similar problems to a Scottish clinical population pertaining to feelings of personal ineffectiveness; depression and anxiety. Inductee Teachers who did not perceive teaching *per se* as stressful, who perceived the Teaching Learning Interface as significantly less stressful, who generally appeared to be situated in demanding but rewarding and enabling professional contexts, experienced significantly less changes in normal levels of well being during the induction.

7.5.3 GENERAL CONCLUSIONS

The three studies reported in this thesis were designed specifically to explore perception of stress in teaching within the Scottish context. To achieve that aim three groups of teachers from different stages in the 'developmental journey of the teacher' shared their views and experience of teaching in contemporary times. Overall, findings indicated that 92 per cent of fully-fledged teachers, 79 per cent of student teachers and 31 per cent of inductee teachers perceived the profession as 'quite' to 'very' stressful. Teachers perceived issues pertaining to the Teaching Learning Interface and, in particular, 'indiscipline' as a significant source of stress within their everyday professional context. Student Teachers cited issues pertaining to Performance Evaluation, Managing Workload and Class Management as stressful within the context of placement. In contrast to fully-fledged teacher, inductee teachers did not perceive any dimension of teaching such as Work Overload, Professional Ethos, Teaching Learning Interface or Perceived Support as stressful.

Perception of stress in teaching and perception of well being varied significantly in relation to current role in teaching, age, years of teaching experience and level of study within Initial Teacher Education. Younger and, by default, less experienced teachers, did not experience teaching, or any dimension of teaching, stressful. In contrast, teachers who

were aged 40 and over, had 16 years and more of teaching experience and were generally middle managers perceived teaching and the teaching learning interface as 'very' stressful. Moreover, one out of every two middle managers and postgraduate students perceived teaching as 'very' stressful. During the time of the study both groups also reported changes in normal levels of well being which would warrant therapeutic intervention. This was especially apparent in relation to feelings of personal ineffectiveness, such as 'being unable to make decisions'. In contrast, when postgraduate students made the transition into and through the induction year they perceived teaching as significantly less stressful, and reported fewer changes in normal levels of well being. In effect, they appeared to have made the transition from student to inductee teacher with relative ease.

In the case of middle managers, postgraduate students and inductee teachers differences in perception of stress in teaching and perception of well being were explained by the interaction between the demands of teaching, such as Work Overload and the Teaching Learning Interface, and a range of additional factors. For the middle manager, the impact of change and issues pertaining to Professional Ethos and Perceived Support such as 'low staff morale' and 'management indifference' played a key role in their perception of teaching as 'very' stressful. Issues of efficacy associated with the PGDE course such as a 'lack of status'; others' and the postgraduate students own expectations impacted on their perception of teaching as stressful. Issues of efficacy permeated the postgraduate students' experiences of teaching at every level and served to make their adaptation to evaluation, adaptation to the demands of teaching and their adaptation to a myriad of expectations, very stressful.

The inductee teachers' perception of teaching as 'not stressful' was attributed to the impact of being situated in enabling professional contexts in which their professional growth was generally supported. However, it was interesting to note that as inductee teachers perceived the teaching learning interface in particular as less stressful, they also

perceived teaching as significantly less stressful and, in addition, reported fewer changes in well being. By the end of the induction no inductee teacher was experiencing problems such as feelings of personal ineffectiveness and tension. In contrast, middle managers and postgraduate students experienced significant problems in relation to personal ineffectiveness.

It is not possible to conclude on the basis of this study if issues of personal ineffectiveness preceded middle managers and postgraduate students' perception of teaching as very stressful. Or alternatively these issues may have arisen as a consequence of a perceived mismatch between the demands of teaching, intrinsic, extrinsic stressors and additional factors pertaining to change, issues of efficacy, professional ethos and perceived support. Nonetheless, it is abundantly clear that current role within the profession and level of study within ITE in particular, appear to be antecedents of stress in teaching within this specific Scottish context. Findings from the inductee study indicate that as teachers develop their range of personal and professional resources and are generally situated within a supportive environment which facilitates their development, teaching is perceived as significantly less stressful.

7.5.4 FUTURE CONSIDERATIONS

This exploration of perception of stress in teaching within this Scottish context has served to portray a varied and a complex picture of why teachers do, or do not perceive teaching as 'stressful'. Teachers across the developmental stages identified similar intrinsic stressors associated with workload and the teaching learning interface as their main sources of stress. With the passage of time fully fledged teacher perceived the profession as significantly more stressful while the opposite was true for inductee teachers. This appears to be an anomaly as it would be safe to assume that that with experience and time in the profession the fully-fledged teacher would find teaching less stressful as they would have developed the range of personal and professional resources, amassed a level of support that would enable them to effectively meet demands and indeed embrace

change. Further study is clearly required to fully explore the reasons why teachers within the passage of time appear to be stretched to their adaptive capacities.

One way of addressing the issues of stress in teaching would be to find ways of encouraging and supporting teachers across developmental stages to develop the personal and professional resources to manage workload, time, and the many stressors integral to the profession of teaching. In a climate of continued professional development and ethos for life-long learning many would argue that personal and professional development is the responsibility of the individual. To combat 'stress in teaching' Schools' Local Authorities and Initial Teacher Education Institutes could provide support in terms of behaviour management, time management and even stress management. In addition the teacher can be encouraged, or perhaps trained, to re-conceptualise stressors as challenging rather than threatening. Future study could build on the findings of the inductee study which explored coping with stress in teaching. In particular it would be useful to explore the relationship between coping strategies adopted to meet the demands of teaching and the extent to which these impact on perception of stress in teaching. Within the inductee teacher study (Study 3) findings suggested that these young teachers responded to demands by 'doubting themselves' and 'feeling overwhelmed'. These responses were seen as ineffective by the group but did not appear to make teaching *per se* more stressful. It would be interesting to explore the relationship between coping and stress in teaching in relation to fully-fledged teacher and the student teacher.

Having viewed first hand the significant transformation in terms of levels of perceived stress as postgraduate students made the transition from student to inductee teacher a number of research opportunities would be worth following up. Both the student and inductee are in a supported environment as they learn to teach. However, the student teacher and postgraduate student in particular experienced real difficulties in adapting to constant performance evaluation. To address this it is time for ITE and placement schools to re-think our approaches to evaluation and perhaps consider the possibility of working

with student teachers in a more collaborative manner that affords them an active role within their own development.

However, in the search for solutions to the issues of stress in teaching it is crucial that we embrace the dynamic, transactional, situational and individual definition of stress which underpinned this thesis. Just as the teacher, student and inductee teacher bring their unique perspective and experiences to the world of teaching each department, school and ITE faculty develop their own unique *modus operandi*. It is crucial that not only is consideration given to how best the individual teacher can meet the demands of their profession and in the case of the student teachers the demands of learning to teach. Moreover, it is time to carefully reconsider the extent to which the professional ethos and support systems within and outwith our schools and ITE faculties ensures that all teachers, at whatever level or stage of their professional development, indeed feel supported. Scottish Secondary School teachers, middle managers and postgraduate student teachers in particular are indeed feeling the strain of teaching in contemporary times. In many ways they are no different than teachers across the world (Chan, 2003; Cosgrove, 2000). Nonetheless, teachers are key players within the education process and it has been argued potential agents of change (Johnson & Hallgarten, 2002). While student teachers are the future of the profession. They, along with their more experienced colleagues, are charged with the most precious resource we have: our children.

To support teachers on their professional journey it is crucial that research and media attention focuses on the four-dimensional nature of teachers' perception of their everyday professional life, rather than simply focusing on the main players, such as work overload and the teaching-learning interface. This may provide some indication of how we can find increasingly creative, and hopefully effective ways, of supporting teachers, pupils and schools as they strive to develop themselves and pupils as successful, confident learners who can effectively contribute to and shape the future.

7.5.5 LIMITATIONS

Throughout the thesis areas which may have influenced findings have been highlighted. However it is important to note that the research reported in this thesis is relatively small scale and therefore findings may not be reflective of the wider teaching community with the Scottish context. In addition, due to differences in sample sizes the views of specific groups of teacher such as senior managers may not have been fully represented. Moreover, as stress is a highly emotive topic this may have influenced teacher decisions to take part in the research (or not) as well as their responses to the range of self report questionnaires. Teachers may have participated on the basis that they were 'stressed'. Findings indicated that specific groups of teachers within these studies had experienced significant changes in well being which warranted therapeutic intervention. These findings did give cause for concern especially in light of current debates concerning teacher recruitment and retention. However, the scale of the problem may not entirely be attributed to 'teaching' as many other factors may have impacted on teacher well being around the time of this study.

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APPENDIX 1: GENERAL HEALTH QUESTIONNAIRE (GHQ-30)

Please read this carefully:

I would like to know if you have experienced any of the following problems, and how your health has been in general *over the past few weeks*. Please answer ALL the questions on the following pages simply by under-lining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer ALL the questions

Thank you very much for your co-operation

1 -	Been able to concentrate on whatever you're doing?	Better than usual	Same as usual	Less than usual	Much less than usual
2 -	Lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
3 -	Been having restless, disturbed nights?	Not at all	No more than usual	Rather more than usual	Much more than usual
4 -	Been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
5 -	Been getting out the house as much as usual?	More so than usual	Same as usual	Less than usual	Much less than usual
6 -	Been managing as well as most people would in your shoes?	Better than most	About the same	Rather less well	Much less well
7 -	Felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
8 -	Been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
9 -	Been able to feel warmth and affection for those near to you?	Better than usual	About same as usual	Less well than usual	Much less well
10 -	Been finding it easy to get on with other people?	Better than usual	About same as usual	Less well than usual	Much less well
11 -	Spent much time chatting with people?	More time than usual	About same as usual	Less time than usual	Much less than usual
12 -	Felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less capable
13 -	Felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
14 -	Felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
15 -	Felt you couldn't overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
16 -	Been finding life a struggle all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual

APPENDIX 1 (contd) : GENERAL HEALTH QUESTIONNAIRE (GHQ-30)
contd.

17 -	Been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual
18 -	Been taking things hard?	Not at all	No more than usual	Rather more than usual	Much more than usual
19 -	Been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
20 -	Been able to face up to your problems?	More so than usual	Same as usual	Less able than usual	Much less able
21 -	Found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
22 -	Been feeling unhappy and depressed?	Not at all	No more than usual	Rather more than usual	Much more than usual
23 -	Been losing confidence in yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
24 -	Been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
25 -	Felt that life was entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
26 -	Been hopeful about your own future?	More so than usual	About same as usual	Less so than usual	Much less hopeful
27 -	Been feeling reasonable happy, all things considered?	More so than usual	About same as usual	Less so than usual	Much less hopeful
28 -	Been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
29 -	Felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
30 -	Found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual

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APPENDIX 2: GLASGOW SYMPTOM CHECKLIST (GSC)

Zedem Psychological Services

If you have any of the following problems, please indicate how much it has bothered you in general over the past few weeks, by circling either: 'very'; 'quite' or 'slightly'. If you do not have any particular problem please indicate by circling 'not at all'.

					Office use
1. Heart Pounding	Very	Quite	Slightly	Not at all	F4
2. Making more mistakes Than usual	Very	Quite	Slightly	Not at all	F1
3. Loss of interest	Very	Quite	Slightly	Not at all	F3
4. Can't be bothered	Very	Quite	Slightly	Not at all	F1
5. Shaking or trembling	Very	Quite	Slightly	Not at all	F6
6. Choking feeling	Very	Quite	Slightly	Not at all	F3
7. Avoiding people	Very	Quite	Slightly	Not at all	F5
8. Poor concentration	Very	Quite	Slightly	Not at all	F1
9. Feel slowed down	Very	Quite	Slightly	Not at all	F1
10. Weepy	Very	Quite	Slightly	Not at all	F2
11. Breathing problems	Very	Quite	Slightly	Not at all	F6
12. Loss of emotion or Feeling	Very	Quite	Slightly	Not at all	F1
13. Feel inferior	Very	Quite	Slightly	Not at all	F2
14. Upset by noise	Very	Quite	Slightly	Not at all	F1
15. Restless	Very	Quite	Slightly	Not at all	F1
16. Bowel/Bladder Disturbance	Very	Quite	Slightly	Not at all	F7
17. Cant make friends	Very	Quite	Slightly	Not at all	F5
18. Forgetful	Very	Quite	Slightly	Not at all	F1
19. Sweating	Very	Quite	Slightly	Not at all	F6
20. Worried	Very	Quite	Slightly	Not at all	F2
21. Feeling tense	Very	Quite	Slightly	Not at all	F4

APPENDIX 2 (contd): GLASGOW SYMPTOM CHECKLIST (GSC)

22. Light headed	Very	Quite	Slightly	Not at all	F3	
23. Unable to relax	Very	Quite	Slightly	Not at all	F4	
24. Upset Stomach		Very	Quite	Slightly	Not at all	F7
25. Feel faint		Very	Quite	Slightly	Not at all	F3
26. Feel helpless		Very	Quite	Slightly	Not at all	F2
27. Blushing		Very	Quite	Slightly	Not at all	F5
28. Feel hopeless		Very	Quite	Slightly	Not at all	F2
29. Panicky feeling		Very	Quite	Slightly	Not at all	F4
30. Feel sick		Very	Quite	Slightly	Not at all	F7
31. Feel physically weak		Very	Quite	Slightly	Not at all	F1
32. Cant help thinking Thoughts over and over again		Very	Quite	Slightly	Not at all	F2
33. Need a drink or Other drugs		Very	Quite	Slightly	Not at all	F6
34. Can't make decisions		Very	Quite	Slightly	Not at all	F1
35. Dizziness		Very	Quite	Slightly	Not at all	F3
36. Depressed		Very	Quite	Slightly	Not at all	F2
37. Unable to have a good time		Very	Quite	Slightly	Not at all	F5
38. Shyness		Very	Quite	Slightly	Not at all	F5
39. Boredom		Very	Quite	Slightly	Not at all	F2
40. Churning stomach		Very	Quite	Slightly	Not at all	F7
41. Feel less able to do things properly		Very	Quite	Slightly	Not at all	F1
42. Not mixing with other people as much as I used to		Very	Quite	Slightly	Not at all	F5
43. Feel frightened		Very	Quite	Slightly	Not at all	F4
44. Tiredness		Very	Quite	Slightly	Not at all	F1

Please make sure you have answered all questions. Thank you.

APPENDIX 3 : PLACEMENT CONCERNS QUESTIONNAIRE

(adapted from D'Rozario & Wong, 1996)

STUDY 2: STUDENT TEACHERS

Reflect on your recent placement experience and rate the extent to which each of the 29 items listed below caused you concern during this time.

Consider the rating categories below and place the number which *most accurately* reflects your experience next to the item

Rating categories

1= never stressed me

2= stressed me some of the time

3= stressed me most of the time

4= stressed me of all the time

Example: if managing placement related assignments 'never stressed me' I would record this as follows

(6) Managing placement-related assignments 1

- (1) Fear of failing the placement
- (2) Striking a balance between placement and personal commitments
- (3) Having high expectations of my teaching performance
- (4) Others expecting too much of my teaching performance
- (5) Coping with overall teaching workload (planning...)
- (6) Managing placement-related assignments
- (7) Communicating with and relating to Assistant/Principal Teacher
- (8) Communicating and relating to other teachers in the School
- (9) Communicating and relating to my supervisor (class/mentor)
- (10) Being observed by class teacher
- (11) Being evaluated by class teacher
- (12) Communicating with and relating to my university tutor
- (13) Being observed by my university tutor
- (14) Being evaluated by my university tutor
- (15) Writing detailed lesson plans
- (16) Selecting appropriate content for my lessons
- (17) Preparing resources for my lessons (tasks cards, worksheets...)
- (18) Establishing rapport with pupils
- (19) Delivering the lessons
- (20) Communicating concepts/ideas to pupils
- (21) Giving appropriate feedback to pupils
- (22) Managing whole group work
- (23) Managing individual work
- (24) Managing the class and enforcing discipline
- (25) Helping pupils with learning difficulties
- (26) Helping pupils with emotional/ behavioural difficulties
- (27) Teaching mixed/ability classes
- (28) Marking pupils written work
- (29) Managing time

APPENDIX 4: STRESS IN TEACHING SCALE (SITS)

STUDY 1 & STUDY 2

The following table below comprises a list of 'stressors' identified by a group of teachers. I would like you to tell me the extent to which each item stressed YOU in your everyday professional life as an inductee teacher. Simply choose one of the four levels below which most accurately reflects your experience and write the number next to each item.

Levels

0 = 'not at all' stressful 1 = 'slightly stressful' 2 = 'quite' stressful 3 = 'very stressful'

SSITS

	SITS ITEM	LEVEL		SITS ITEM	LEVEL
1	Heavy Workload		33	Insufficient non contact time	
2	Large class sizes		34	Curriculum changes	
3	Lack of technical support		35	Poor resources (computers etc)	
4	Insufficient staff		36	Lack of time for practical subjects	
5	Parents' attitudes		37	Teachers getting blame for everything	
6	Indifference of management		38	Coping with other staff's feelings	
7	Lack of supply teachers		39	Conflicts	
8	Noise Level		40	Lack of promotion prospects	
9	Lack of status		41	Multi level teaching	
10	Too little time		42	Ineffectiveness due to time constraints	
11	Stressed out colleagues		43	Directives	
12	Academic snobbery		44	Lack of co-operation from colleagues	
13	Classroom assistants		45	Professionalism not respected	
14	Keeping up with changing demands		46	Lack of autonomy	
15	Institutional politics		47	Bullying at work	
16	Lack of support from external agencies		48	Views and opinions not respected	
17	Too much paper work		49	Unnecessary meetings	
18	Inefficient line managers		50	Pupils' manners	
19	Indiscipline		51	Overload of new ideas	
20	Deadlines		52	Lack of time for self reflection	
21	Lack of support from other staff		53	Writing interim reports	
22	Assessment and Marking		54	Responding to memos	
23	Job security		55	Making returns to SMT/SQA	
24	Lack of motivation of pupils		56	Erosion of teacher's authority	
25	Physical conditions of school		57	Not enough time for development work	
26	Poor resources for courses		58	Interruptions	
27	Balancing additional responsibilities		59	Low level indiscipline	
28	Working Environment		60	Lack of control in decision making	
29	Communications among staff		61	Inclusive Education	
30	Reviews		62	Covering other teachers' classes	
31	Low staff morale		63	Time spent working at home	
32	Underachieving pupils		64	Lack of support from SMY	

APPENDIX 5 STRESS IN STUDENTS SCALE (SIS)

(Mulholland, 2005)

STUDY 2

The following is a list of "stressors", identified by students. Indicate the *degree* to which each item has stressed YOU in your everyday life as a student, by choosing *one* of the 4 levels and writing the corresponding number beside each item. Please add any stressor not covered and 'rate' as explained above.

Levels

0= 'not at all' 1= 'slightly' 2 = 'quite a lot' 4= 'very much'

,

SIS Items'

- 1 Course demands
- 2 Exams
- 3 Lack of Academic support 4 Assignments
- 5 Keeping fit
- 6 Fitting *everything* in
- 7 Having to live away from home
- 8 Being a student
- 9 Lack of status
- 10 Too little time for studies
- 11 Peers
- 12 Others' expectations
- 13 Finances
- 14 Bullying
- 15 Availability of material for coursework
- 16 Having to live away from friends
- 17 Family difficulties
- 18 Future prospects
- 19 Fear of Failing
- 20 Deadlines
- 21 Lecturers' attitude
- 22 Presentations
- 23 Timetable
- 24 Accommodation
- 25 Having to have a job and study _
- 26 Choosing placement schools
- 27 Balancing family responsibilities with other commitments
- 28 Flat mates
- 29 Lack or quality of academic feedback
- 30 Health

Please make sure you have attempted every item. Thanks.

APPENDIX 6 COPING WITH TEACHER STRESS (CWTS)

(Mulholland, 2006)

STUDY 3 (August 2006- June 2007)

INDUCTEE TEACHERS

Firstly, please circle **the** number (1-4) that most accurately reflects how you responded to demands encountered during your final placement (left hand column).

1= Never 2= some of the time 3= most of the time 4= all of time

Then go through the list once more. Circle **the** number (1-4) that most accurately reflects the extent to which you feel each response helped you to cope with the demands encountered (right hand column). **If you never used the strategy please write N/A across the numbers in the relevant row.*

1=Not at all 2= some of the time 3= most of the time 4= all of the time

	To what extent did you use this response?				Response	To what extent did this help you cope?			
	1	2	3	4		1	2	3	4
1					I played sport/trained				
2					I shared experiences (good and bad) with other students/teachers				
3					I focused on the positive				
4					I made sure I was very organised				
5					I set realistic achievable goals				
6					I made sure I built in time for relaxation				
7					I adapted to the context I found myself in				
8					I used the support of my family /partner				
9					I controlled my emotions				
10					I focussed on placement and nothing else				
11					I observed other teachers teaching				
12					I made time for socialising/family/friends				
13					I felt overwhelmed				
14					I reflected on my experience with a view to learning from this				
15					I used the support of my tutor/ university				
16					I read/researched to update my activity/curriculum knowledge				
17					I confronted any problems I experienced				
18					I vented my feelings/emotions				
19					I doubted myself				

APPENDIX 6 (contd) COPING WITH TEACHER STRESS (CWTS) contd.

	To what extent did you use this strategy?				Response	To what extent did this help you cope?			
	1	2	3	4		1	2	3	4
21	1	2	3	4	I saw this a challenge	1	2	3	4
22	1	2	3	4	I drank alcohol	1	2	3	4
23	1	2	3	4	I kept things in perspective	1	2	3	4
24	1	2	3	4	I got upset/cried	1	2	3	4
25	1	2	3	4	I clarified what was expected of me	1	2	3	4
26	1	2	3	4	I built positive relationships with staff in the department/school	1	2	3	4
26	1	2	3	4	I remained on top of the workload	1	2	3	4
27	1	2	3	4	I tried to forget and move on	1	2	3	4
28	1	2	3	4	I drew on my previous experience	1	2	3	4
29	1	2	3	4	I used the support of my supervising teacher/s	1	2	3	4
30	1	2	3	4	I recognised my own limitations	1	2	3	4
31	1	2	3	4	I built a positive relationship with my university tutor	1	2	3	4
32	1	2	3	4	I shared ideas and resources with other students	1	2	3	4
33	1	2	3	4	I saw this as a good learning experience	1	2	3	4
34	1	2	3	4	I compared myself with other teachers/students	1	2	3	4
35	1	2	3	4	I made sure I had a good balance between my professional and personal life	1	2	3	4
36	1	2	3	4	I pushed myself even harder	1	2	3	4
37	1	2	3	4	I built positive relationships with pupils	1	2	3	4
38	1	2	3	4	I conformed to others expectations	1	2	3	4
39	1	2	3	4	I made sure everything was well planned	1	2	3	4

APPENDIX 7 (a) INTERVIEW QUESTIONS (JUNE 2006)

STUDY 2: STUDENT TEACHERS

QUESTIONS

Q1: How was your placement?

Q2: Can you describe your experience during the placement?

Q3: During the time of the placement was there anything in particular that made teaching a stressful experience for you?

APPENDIX 7 (b) INTERVIEW RESPONSES (JUNE 2006)

Table 7.0 Examples of Factors impacting on Postgraduate Student Perception of Stress in Teaching

CATEGORIES	SUB-CATEGORIES	SUBSTANTIVE STATEMENTS
Adapting to Evaluation	Constant Evaluative Scrutiny	"You get used to the teacher sitting in your lesson and observing but I do think it effects your teaching because your not used to it..."
	Formal University Evaluation	" The stress I feel during the crit is off the scale...their coming out to give you a grade and if you have an off day, they're seeing that and that's going to go down as your mark"
	Evaluative Feedback	"...I needed to know I had done something right, eventually I just blocked it out and I couldn't even hear the god things..."
Adapting to Demands of Teaching	Managing Workload	" I was in school sometimes until 9pm at night, the school were impressed but I was knackered as I leave at 730 in the morning..."
	Class Management	"What I think is the hardest thing as you have to adapt your teaching style to how individual teachers want their class taught"
Adapting to Expectations	Lack of Status	" Being part of the PGDE is a big thing because there is stigma attached. Your trying to prove yourself a wee bit more..."
	Expectations	"I kin of assumed I should be teaching the same way that teachers teach and not how a student should teach..."

APPENDIX 8 (a) :EMAIL INTERVIEW QUESTIONS (JUNE 2007)

STUDY 3: INDUCTEE

PROFESSIONAL CONTEXT

Question 1.. Can you look back on your induction and identify **five** key words (try to use ‘single’ words only) that you feel most accurately describe your professional context?

FACTORS IMPACTING ON STRESS IN TEACHING

Question 2. Reflect on your experience as an inductee teacher and identify any key factors that contributed to making this phase of your professional more stressful and/or less stressful.

APPENDIX 8 (b) : EMAIL INTERVIEW RESPONSES (JUNE 2007)

Table 8.0 Examples of a range of Enabling and Constraining Factors which were identified as impacting on Perception of Stress in Teaching during the Induction

CATEGORIES	SUB-CATEGORIES	ENABLERS	CONSTRAINTS
Perceived Support	Support within work	“...having individuals in the department you can rely on for support, guidance and assistance which helps a lot	“...the main thing that made teaching stressful for me was a lack of support from the SMT
Professional Ethos	Lack of support within work	“The department I work in is a very positive department...they welcomed me in. I feel this makes thins a lot easier, easier to ask questions and get help”	“I find it difficult to understand the ‘staff room dynamics’ and at times I feel staff come across as rude’ (E2)
	Staff Morale/Departmental Climate		
Class Climate	Class Climate	“Support from the staff and a good school where the majority of kids are ‘well behaved’ makes teaching less stressful”	
	Professional development	“I feel better equipped as I have learned so much from the school”	“ I have experienced some very challenging classes but continue to learn different strategies to cope with this
Personal and Professional Growth	Personal Development	“This year I now feel like a teacher	

APPENDIX 9 SAMPLE ETHICAL APPROVAL FORM

University of Edinburgh

MORAY HOUSE SCHOOL OF EDUCATION ETHICS COMMITTEE

Applicants must indicate their commitment to following the ethical guidelines appropriate to their research (e.g. BERA, BSA, BPS, BASES).

Name...Rosemary Mulholland..... Signature...*Rosie Mulholland*.....

Ethical guidelines followed.....R.Mulholland.....

Has your Head of Department/Supervisor approved this application Yes

SECTION 1: PROJECT DETAILS

- 1.1 Title of Project: Stress In Teaching: The Inductee Teacher Perspective
- 1.2 Proposed start date :August 2006
- 1.3 Duration of the project : August 2006-June 2007
- 1.4

SECTION 2: DESCRIPTION OF THE RESEARCH

Inductee Teachers' Perception of Stress in Teaching

RQ1: To what extent do (PE) inductee teachers perceive teaching as 'stressful'??

RQ2: Are there any specific variables which impact on inductee teacher's perception of stress in teaching

RQ 3: How do inductee teachers cope with stress in teaching?

RQ 4 :How do inductee teachers perceive their professional context.

Procedure

December 2006- inductee questionnaire (Phase I) administered

May/June 2007: Inductee questionnaire (Phase III), individual inductee interviews (N=22)

Analysis

Section (I): Demographics; Section (II): Stress in Teaching Scale

:Section (III): Coping with Stress In Teaching

Section (VII) General Health Questionnaire-30 & Glasgow Symptom Checklist)

Interviews

(i) Perception of professional context a(ii) factors which serve to make teaching 'more stressful' and 'less' stressful.

Ethics

Approval to be sought from University Ethics Committee

Approval to be sought from Head Teacher (Induction Schools)

Participants to provide informed consent

Responses will remain anonymous

SECTION 3: POTENTIAL RISKS TO PARTICIPANTS

3.1 Could the research induce any psychological stress or discomfort? **NO**

3.2 Does the research require any physically invasive or potentially physically harmful procedures? **NO**

3.3 Does the research involve the investigation of any illegal behaviours? **NO**

3.4 Is it possible that this research will lead to the disclosure of information about child abuse or neglect? **NO**

3.5 Is there any purpose to which the research findings could be put that could adversely affect participants? **NO**

3.6 Could this research adversely affect participants in any other way?

3.7 Could this research adversely affect members of particular groups of people?

3.8 Is this research expected to benefit the participants, directly or indirectly? **YES** inform practice and develop awareness of how they manage 'stress'.

3.9 Will the true purpose of the research be concealed from the participants? **NO**

APPENDIX 9 (contd) SAMPLE ETHICAL APPROVAL FORM (Contd.)

SECTION 4: PARTICIPANTS

4.1 How many participants is it hoped to include in the research Inductee Teachers 22

4.2 What criteria will be used in deciding on the inclusion and exclusion of participants in the study? 1.

Member of PGDE (PE) cohort at University of Edinburgh 2. Provide informed consent (participant)

4.3 Are any of the participants likely to:
be under 16 years of age?

NO

children in the care of a Local Authority?

NO

known to have special educational needs

NO

physically or mentally ill?

NO

vulnerable in other ways

NO

members of a racial or ethnic minority?

NO

unlikely to be proficient in English?

NO

in a client or professional relationship with the researchers?

YES

in a student-teacher relationship with the researchers?

NO

in any other dependent relationship with the researchers?

NO

have difficulty in reading and/or comprehending any printed
material distributed as part of the study?

NO

4.4 How will the sample be recruited? Volunteers from the PGDE PE course

4.5 Will participants receive any financial or other material benefits because of participation?

NO

SECTION 5: CONFIDENTIALITY AND HANDLING OF DATA

5.1 Will the research require the collection of personal information from e.g. universities, schools, employers, or other agencies about individuals without their direct consent? NO

5.2 Will any part of the research involving participants be audio/film/video taped or recorded using any other electronic medium? NO

5.4 How will the confidentiality of data, including the identity of participants, be ensured? Participants will only be identified by gender

5.5 Specify where the datafiles/audio/video tapes, etc. will be retained after the study, how long they will be retained and how they will eventually be disposed of. Data files will be retained on PC of the principal investigator's office computer for 6 months before deleting them post publication of findings.

5.6 How do you intend for the results of the research to be used?

1. Refereed publication; 2. Conference Presentation 3. PhD

2. 5.7 Will feedback of findings be given to participants YES

SECTION 6: PARTICIPANT INFORMATION AND CONSENT

6.1 Will written consent be obtained from participants? (App YES

APPENDIX 10: SAMPLE INFORMED CONSENT FORM

Project: Inductee Teachers' Perception of Stress in Teaching

Purpose of the Study

The main purpose of this research is to explore perception of stress within the Scottish context. Findings from the study will be used to inform practice within Initial Teacher Education and in particular to support students (and teachers) during their professional journey.

Procedure of the Study

You will be asked to complete a questionnaire similar to the one you completed after your final placement this year. Questionnaires will be issued in December 2006 and then May/June 2007. In addition you will be invited to participate in an individual interview towards the end of the induction. The study is designed to explore your perception of teaching during the induction. In addition you will be asked questions about your general well being and how you generally manage the demands of teaching. All information will be treated entirely confidentially. Information/data resulting publications/work will be made anonymous and details changed to protect your identity and that of your school.

Withdrawing from the study

You have the right to withdraw from the study at any time without question.

Questions about the study

If you have any questions about the study please do not hesitate to contact Rosemary Mulholland at the University of Edinburgh on 0131 651 6627 or

Rosemary.mulholland@education.ed.ac.uk

I have read the details above and agree to take part in the study

Name:

Date:

Principal Investigator: Rosemary Mulholland
University of Edinburgh
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