# Work Related Stress among Second Level Teachers in Ireland

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# Abstract

The purpose of this study was to examine the levels of occupational stress in Irish secondary school teachers, identify which stressors were the most prominent and if there were any differences between them, investigate the most prominent manifestations arising from stress and what were the most utilised and effective coping methods in dealing with the problem. In addition, various demographic variables were examined and their relationship with levels and sources of stress. An examination of gender and coping techniques was also conducted.

The results showed that the respondents experienced high levels of stress and significant numbers experienced stress for at least half of their typical week. Overall averages were not considerably different between the groups of stressors but professional investment seemed to result in the lowest level of stress. Closer examination did highlight excessive workload, time issues, lack of recognition, poorly motivated students and lack of effort from students were the top sources of stress. A formidably high percentage of participants encountered the majority of the stress manifestations investigated but in particular emotional and fatigue manifestations. Action planning was the most utilised coping technique but a Pearson's Correlation failed to show moderate to strong relationships between the stressors and coping methods.

The results of the research on demographic variables concluded that females experienced higher levels of work- related or job stress than that of the male participants. It also found that females were more likely to use the coping methods of professional help and seek advice and support from friends or colleagues. Teachers in urban schools experienced stress more frequently than their counterparts in rural schools. There were no significant differences relating to age and levels or sources of stress but those who were teaching for 11 to 15 years experienced greater levels of professional investment stress than those with less than 11 years teaching experience.

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# **Learning Reflection**

Initially when I undertook this dissertation I found it quite formidable having never completed a research methods based dissertation previously. I had decided from an early stage to cover the area of work related stress given that it is such a prevalent condition in Irish society at present. The next part of the puzzle was to decide what profession to specifically investigate given the broad nature of stress. As many of my friends are in the teaching profession and having listened to them discuss the impact of this on their lives coupled with much of the media coverage in the area it was an easy choice to go in this direction. I found that there was a vast amount of international literature in the area particularly covering the sources of stress in teachers. However, there was very limited literature from an Irish perspective. I focussed on journal articles and through such resources found a number of additional useful journal articles and books in the area. The previous research carried out was also vital in my decision to choose a quantitative research methodology approach. This was the approach undertaken by the majority and as there was very limited Irish research on this topic I felt that this would offer the most information. I had initially hoped to also carry out qualitative analysis in the form of interviews but I soon discovered time was limited particularly in a teacher's calendar. I utilised the survey monkey tool and found it extremely useful in distributing my survey and also in descriptively analysing much of the information itself. I had used this tool for work purposes so was familiar with its functionality. The surveys were distributed after the teachers came back from their Easter holidays. It was quite difficult to get responses and looking back I should definitely have distributed these surveys earlier in the year as I feel that a larger sample size would have made an enormous difference in this dissertation. Inevitably I did allow two months for completion but should have pushed for higher completion rates at an earlier stage in the process. Analysing the data was an interesting journey and once I became comfortable with SPSS I learned that there were an abundance of tests that could be carried out. Once more, if I had given myself additional time I feel that a lot more could have been revealed. Nevertheless, I did achieve my initial aims of the project but believe that this dissertation has a lot more to give. The aspect I found most interesting was the correlation tests between two variables, in this case coping and stressors. Overall, I found this dissertation process to be extremely valuable and I learnt a great deal about writing, researching and analysing. All of this learning continues to be of value and has improved how I write and prepare reports in work. Finally, I intend to use what I have learnt on this topic as well as the technique of analysing information to provide value to the business that I am currently employed in and carry out further research specific on the existence of stress in employees in my company.

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# **Chapter 1: Introduction**

#### **1.1 Introduction**

Occupational or work related stress is a topic that has been widely discussed in both Ireland and around the world over the past number of decades. It has emerged as a major issue causing great concern among an increasing volume of both employees and employers. Stress can affect anyone in the workplace, regardless of the size of the company or position held, and is something that affects the majority of us at some time or another. This can be due to workplace and/or external factors. It is something that warrants investigation for a number of reasons including the fact that many of us spend a substantial amount of time at work and there are a number of serious consequences which can arise as a result of extensive stress. Kinman comments, workplace stress can have a wide ranging impact on a person's health and well-being and their day to day functioning (Kinman, 1998). Such outcomes can be physical (e.g heart disease, high blood pressure, gastronomical problems) psychological (e.g stress, anxiety and depression), behavioural (e.g drug and alcohol abuse, absenteeism) and or cognitive (e.g memory and lack of attention). It is of equal concern for the employer as stressed workers are said to be less productive, lack motivation and are also associated with greater risks to health and safety at work, all of which can result in sizeable costs for the employer.

The issue of stress in the teaching profession particularly has been given a great deal of attention and has been identified as a particularly stressful career often leading to burnout (Johnson et al., 2005; Kieschke and Schaarschmidt, 2008; Montgomery and Rupp, 2005; Kyriacou and Sutcliffe, 1977; Fitzgerald, 2008). The very nature and the unpredictability of the profession can result in high levels of stress. In Ireland it has also been highlighted as a profession which carries with it significant levels of stress (Wynne, Clarkin and Dolphin, 1991; Kerr, Breen, Delaney, Kelly & Miller, 2011; Darmody and Smith, 2011). According to Irish research carried out by the Association of Secondary Teachers Ireland,

11% of teachers retiring were doing so on grounds of ill health with 50% of disability retirements accredited to stress/depression and anxiety (Fitzgerald, 2008).

Considering the severe consequences of occupational stress together with the international and Irish research highlighting it as a particular problem for those in the teaching profession it is certainly a topic that warrants intensive investigation. In addition, the author believes it is a topic that requires more in depth analysis from an Irish context with particular focus on second level teachers due to a substantial gap on the up to date literature. Whilst the previous Irish research on stress in secondary level teachers is extremely useful it is limited in that it has been carried out quite some time ago. Furthermore, the most recent study was carried out in the area is very small in scope (Kerr, Breen, Delaney, Kelly & Miller, 2011).

There has been inconsistency in defining what stress is but the author for the purposes of this study has adopted the following definition, "when the demands of the job and the working environment on a person exceeds their capacity to meet them" (Health and Safety Authority). From a theoretical point of view this definition adopts a transactional approach. The "demands of the job", which in this situation are interpreted as the causes of stress, should be specific to the teaching profession. There are a number of consistent themes running through both the Irish and international literature in relation to the primary causes of stress in teachers. These include; excessive workload, lack of time, disciplinary issues, motivation of students, career opportunities and a lack of supportive environment. Based on previous literature this study will scrutinise the following categories of stress; time management, work-related stress, professional distress, discipline and motivation and professional investment. Within this there are a number of 29 statements addressing the above stressors. Also an integral element of the definition is that these demands "exceed the person's capacity to meet them". This will include an investigation of coping methods utilised to try and meet such demands. Again based on previous literature the author examines the following coping techniques; action planning, exercise, hobbies, relaxation, advice and support from friends and colleagues and professional help. The final element of this definition of stress involves the manifestations or consequences of stress. This will incorporate an analysis of the following categories of manifestations; emotional, fatigue, cardiovascular, gastronomical and behavioural manifestations.

Subsequent to the above investigation the following are the objectives of the author for the present study.

#### **Objective 1**

Establish the extent of stress if any experienced and how frequently it is experienced,

# **Objective 2**

Determine what the most prominent causes of occupational stress are.

# **Objective 3**

What are the manifestations arising from the existence of stress.

#### **Objective 4**

Determine which are the most commonly utilised methods for coping with the existence of work related stress and how effective are such methods.

#### **Objective 5**

Investigate whether there are any differences in relation to gender, location, age and years of experience with levels, frequency and sources of stress.

This study will be carried out using a quantitative research methodology via a survey which will be distributed to a total of eight schools in various counties in Ireland. The choice of this particular method is due to the lack of previous research already advanced in this area in Ireland. This method will in turn allow for interpretation of a larger body of information and will therefore form an excellent background for further in depth research. Moreover, quantitative measures offer the opportunity for anonymity considering the sensitivity of this topic for many. The results will be analysed via SPSS to see if they are consistent with previous Irish and international research and will also explore any new themes which emerge.

The structure of the thesis will be as follows:

Chapter Two is the literature review and will examine and critique the relevant theory and literature on work related stress. It will then specifically focus on the causes of stress in teachers and particularly secondary school teachers. This chapter will discuss the coping methods traditionally used in dealing with and eliminating stress. It will also discuss the consequences of occupational stress for the employee and the employer. This will also include a discussion on stress and the law and in particular the employer's legal obligations to their employees.

Chapter three will rationalise the research objectives and their positioning in the literature. This chapter will also include a discussion on the chosen research methodology and how it enables the research objectives to be achieved. This will include dialogue on the justification, philosophical positioning and limitations of such research method.

Chapter four will be the analysis and empirical findings of the research. The findings will be divided into the five objectives as highlighted above and will be discussed accordingly.

Chapter five is the discussion chapter and will draw together the implications of the findings in light of the previous research discussed in chapter two. The findings will be critically evaluated in terms of practical considerations as well as potential limitations.

Chapter six is the concluding chapter and will discuss the salient points by summarising the main findings. Recommendations to reduce the existence of stress in secondary school teachers as well as recommendations for future research will also be included here.

# **Chapter 2: Literature Review**

## 2.1 Definition of Stress

There is a lack of consensus on the definition of stress. The E.U. Commission for example has defined work-related stress as: "the emotional, cognitive, behavioural and physiological reaction to aversive and noxious aspects of work, work environments and work organisations. It is characterised by high levels of arousal and distress and often by feelings of not coping" (European Commission, 1999). Closer to home the Irish Health and Safety Authority defines stress as arising; "when the demands of the job and the working environment on a person exceeds their capacity to meet them" (Health Safety Authority). The Labour Relations Commission has described it as "a state, which is accompanied by physical, psychological or social complaints or dysfunctions and which results from individuals feeling unable to bridge a gap with the requirements or expectations placed on them" (Labour Relations Commission, 2007).

From the definitions suggested above it is apparent that there are a number of elements incorporated within the meaning of stress including; the individual, the demands or stressors, coping and the outcomes. In addition, stressors can very often vary depending on the occupation. Furthermore, stress has been described as a subjective concept and can depend on the individual including the outcome and coping element. What may be a stressful experience for one individual may be a challenge for another. Therefore, it can produce both positive and negative outcomes. In fact many believe that an element of stress is necessary in the workplace in order to challenge and motivate employees. These variations are not only dependent on personality but also on physical capability and general health. There are various models, which have surfaced in explaining the relationship between the causes, and factors that underpin work related stress. Three main approaches have been identified and include the engineering approach, the physiological approach as this is what the contemporary research focus' on. Mark and Smith consider the psychological viewpoint as the most popular and superior in the

present day (Mark and Smith, 2011). Within this approach stress is described as the dynamic process which occurs as an individual interacts with their environment. (Cox and MacKay, 1981) Both the Labour Relations Commission and the Irish Health and Safety Authority seem to endorse this approach in their definition of stress.

#### 2.2 Theories of Stress

Within the psychological viewpoint, there exist a number of theories all of which are influential in their own right and the author will discuss a selection of these in the preceding paragraphs. These form two distinct categories; interactional and transactional. Interactional theories are concerned with structural feature of the person's interaction with their environment and transactional concentrate on the psychological mechanisms underpinning that interaction (Jovanovic, Lazaridis and Stefanovic, 2006).

#### 2.2.1 The Person Environment Fit Model

This model has largely underpinned the other models that have subsequently emerged. This theory predicts whether stress will occur based on the fit between the person and the environment (Livingstone, Nelson, and Barr, 1997). Essentially the workers skills, abilities and resources should meet the demands of the job and if there is a gap or misfit, it is then that problems will arise. The greater the gap between person and environment, the greater the stress as the demands exceed abilities (Sonnentag and Frese, 2003). This model has been divided into two variants; the first, largely described above, is the demands – abilities fit. However, it has been argued that is not only important that there is a fit between demands and abilities but also on what an employee wants and what they receive. This latter viewpoint is known as the needs – supplies. This could be explained by considering if an employee needs clarification on specifics of a role and stress can be reduced if they receive this. It would appear essential when considering the P-E fit model to focus on both as otherwise there is the potential in certain situations to ignore important elements of the process. Criticisms of this model include how best to assess

fit, particularly in terms of needs – supplies. Traditionally this has been measured by examining the difference between actual and preferred levels of an attribute. Dewe, O'Driscoll and Cooper believe that fit is a relative concept and that the relevance of fit may vary depending on the feature under investigation (Dewe, O'Driscoll and Cooper, 2010).

## 2.2.2 Demand Control Support Model

Demand Control Support Model is another structural model, which proposes that stress or strain is because of the high job demands and low job control (Karasek, 1979). Cox and Griffith describe this model as interactional because it is concerned with the structural features of individual's interactions with their environment (Cox and Griffith, 1995). This model was further developed and a third element added; that of support (Johnson, 1989). This latter model highlighted the magnitude of working in an environment that offers a high degree of social support from managers and co-workers and the impact this can have in reducing stress and acting as a buffer in high demand situations. This model could be criticised for failing to take into account that the same demands and control may result in different behaviours between two individuals. Other criticisms, which have been highlighted, are that its definition of demands is based primarily on workload and does not consider other types of demands (Cox et al, 2000). Furthermore, for some an immense level of control may not be desirable and in turn may not reduce the likelihood of the incidence of stress. Nevertheless, it is a highly influential model and may be useful when considered in conjunction with other models.

#### 2.2.3 Transactional Models

The transactional model focuses on the cognitive process and the emotional response of the individual. This takes into account individual variables in conjunction with job stressors (Betoret, 2009). This model implies that stress does not exist solely in the person or the environment but in the transaction between the two. Cox believes that there

are a number of stages involved in stress (Cox, 1978). The first stage is concerned with the demand or job characteristics of the environment and the second stage consists of the persons own perception of such demands and their ability to cope with such demands. These stages are comparable to the primary appraisal element of Folkman and Lazaraus (Folkman and Lazaraus, 1981). The next stage in the process is similar to the secondary appraisal element of the Folkman and Lazaraus model. This includes the mental and physical changes that the persons experiences and how they will cope. This model appears to be a further expansion on the interactional models but trump such models in the fact that it considers the relevance of individual variables as well as the outcome. It has been criticised by some researchers that focusing on the appraisal process takes attention away from what should be the primary concern, that of clarifying what the work stressors are (Brief and George, 1991). I would argue that they are all essential parts of the equation and as such should be examined in a balanced way.

Each of the models outlined above serve a purpose for the current research. The definition which the author has chosen to adopt for the purposes of the current research is that of the definition pursued by the Irish Health and Safety Authority "the demands of the job and the working environment of a person exceeds their capacity to meet them". It is aligned with the transactional approach in that it considers the sources of stress through the demands aspect and the capacity to meet these demands in what coping mechanisms are used. The secondary appraisal process looks at what action can be taken to deal with the existence of stress. This is when the individual will evaluate the available resources or coping options open to him or her (Lazarus, 2001). The final element is concerned with the outcome and how it is manifests itself.

#### **2.3 Work Related Stress in Ireland**

Having looked at the various theories which have been developed in order to define stress the author will now move on to examine the stressors themselves. This next section will focus on a discussion of the common occupational stressors which are existent in today's society and in particular Irish society. There have been a plethora of studies carried out in the area of occupational stress with many concentrating on particular occupations including nursing, the police forces, teachers and university staff. Many of these studies see an overlap in stressors and some are obviously unique to the particular occupation. According to research carried out by the Irish Congress of Trade Unions the leading work related stressors in Ireland are:

- Job reorganisation or job insecurity
- Hours worked or workload
- Being subjected to unacceptable behaviour such as bullying and harassment
- Lack of support to fulfil your role from colleagues or superiors
- Lack of clarity on role or responsibility
- Limited opportunity to manage own work patterns.

(Irish Congress of Trade Unions, 2014)

#### 2.3.1 Job Reorganisation and Job Insecurity

With the economic crisis in Ireland came the issue of job insecurity and reorganisation. Redundancies were widespread across various industries and professions and permanent employment contracts became a thing of the past for many. With the increase in international competition, new technologies and privatisation of state owned companies' job reorganisation emerged as a solution to the problem for many employers. This for numerous employees involved merging two roles into one with the effect of substantially increasing their workload as well as dispersing them into an unknown environment with little guidance or preparation. Ineffective communication often aggravated the existing problem.

# 2.3.2 Hours Worked or Workload

Job reorganisation often includes an increase in the volume of work expected. This in turn results in an increase in pressure given that employees are competing with many to perform better. Furthermore, there is also the risk of role conflict, which occurs when an employee must choose to do one thing over another and feels uncomfortable with the situation (Milbourn, 2006). Studies have found that a relationship exists between role conflict and job related tension (Rebele and Michaels, 1990).

#### 2.3.3 Being subjected to unacceptable behaviour such as bullying and harassment

Bullying at work is defined as, "repeated inappropriate behaviour, direct or indirect whether verbal, physical or otherwise, conducted by one or more persons against another or others, at the place of work and/or in the course of employment which could reasonably be regarded as undermining the individual's right to dignity at work" (Expert Advisory Group on Workplace Bullying, 2005). Harassment is distinct from bullying in that it is governed by the Equality legislation and occurs if an employee is a member of one of the nine grounds specified in the Employment Equality Acts 1998 - 2011. Non-existent systems for dealing with the above issues can result in increased levels of stress.

#### 2.3.4 Lack of support to fulfil your role from colleagues or superiors

This can include a lack of constructive feedback or recognition of the employees work. The world health organisation identifies this as a hazard at work alongside poor relationships with superiors, interpersonal conflict and social or physical isolation (Health and Safety Authority, 2011). Some studies have found that mentoring by superiors can reduce levels of stress in some individuals (Siegel and Reinstein, 2001).

#### 2.3.5 Lack of clarity on role or responsibility

Milbourn delineates role ambiguity as a lack of clarity regarding a person's authority, responsibility, demands and work methods (Milbourn, 2006). This too can result where there is ineffective communication on the part of a manager or supervisor and as a result of poor leadership. Poor job descriptions can arise where job reorganisation has occurred and where managers experience time constraints. These are also characteristics have developed because of the economic downturn.

#### **2.3.6 Limited opportunity to manage own work patterns**

This is considered a hazard relating to the content of work (Health and Safety Authority, 2011). It includes inflexible work rosters, unpredictable hours, long or unsocial hours and poorly managed shift working. Some of the above can effect sleep pattern, which in turn can increase stress levels.

Although the above stressors are directly associated with a variety of professions, they may overlap with many of the specific sources of stress in the teaching profession. Literature on causes of work related stress specifically in teachers will be discussed later but the prevalence of the above will also be incorporated in the author's research.

# 2.4 Negative Consequences of Occupational Stress

As mentioned earlier, for some individuals stress is a positive experience. Many can tolerate stress quite well and will find that they flourish in a stressful environment. They are motivated by tight deadlines, heavy workload, and job pressure. These individuals are often categorised as Type A personalities. Selye coined the term "eustress" which denotes positive outcomes of stress (Selye, 1974). The research of Yerkes and Dodson argues that stress has a strong relationship with performance and satisfaction (Yerkes and Dodson, 1908). The argument is that a lack of challenge could lead to boredom and dissatisfaction in a job. According to Wynne, Clarkin and Dolphin when stress increases an optimum stimulation level is reached. This is turn results in creativity and general satisfaction (Wynne, Clarkin and Dolphin, 1991). When stress goes beyond this point and becomes a problem it changes to negative stress and can have quite serious consequences for employees and employers.

# 2.4.1 Physical and Mental Consequences of Occupational Stress

There are a number of physical and mental health implications for the employee. Research in 2001 found that work related stress was the biggest occupational health

problem in the EU second to back pain. Further research has also uncovered that an estimated 16% of male and 22% of female cardiovascular diseases in the EU is due to stress. (Paoli and Merllie, 2001) In recent research carried out by the ICTU, it was discovered that little had changed and exposure to stress was still considered the main workplace health and safety risk as indicated by 53% of EU workers (Irish Congress of Trade Unions, 2014). This research found that 27% of workers suffered from stress, anxiety or depression. Earlier Irish research specifically on teachers also found high levels of cognitive anxiety, moderate to high levels of disruption to psychological wellbeing but found low levels of the physical symptoms investigated (Wynne, Clarkin and Dolphin, 1991). The mental and physical health implications of stress can include coronary heart disease, hypertension, ulcers, gastrointestinal problems, musculoskeletal problems, issues with immune system, skin problems. Emotional effects include anxiety, low mood, depression, irritability and sleeping problems. In addition to the above, there are also cognitive and behavioural consequences to stress. Cognitive symptoms include; difficulty in concentrating and learning new things and negative thinking. The behavioural outcomes include; making errors, substance abuse and aggression. In addition to those consequences highlighted above, there are those that are unique to the teaching profession. According to a 2007 stress survey carried out by ASTI, some of the common outcomes of stress in teachers included feeling tired, de motivated, feeling under straining and a lack of confidence (Fitzgerald, 2008). For many it can also result in reduced social interaction. The impact of stress and burnout in teachers can also have a detrimental effect on their relationships with students and the quality of their teaching thus greatly influencing the future of many students.

# **2.4.2 Consequences for the Employer**

For the employer or organisation, the consequences can cause huge financial burden. Turnover, presentism, absenteeism, injury rates and accidents can increase, productivity can drop as well as creativity, and it can result in a lengthy and expensive legal battle for both parties. Stress is estimated to cost the EU at least  $\in$ 20 billion per annum in lost time and health costs. Over 50% of absenteeism is thought to be due to stress (Paoli and

Merllie, 2001). According to the Irish Small Firms Association Report 2006, stress is replacing back pain as a key cause of absenteeism from work in Ireland. In Ireland, absenteeism is costing small business' 692 million per annum. The national average for absenteeism is 9 working days - for smaller firms, this average is 7 working days and 10 days for larger firms (Small Firms Association, 2006).

#### 2.5 Stress and the Law

As highlighted above there are a number of consequences as a result of work related stress and these exist for the employer as well as the employee. It is imperative that both parties are aware of their duties and responsibilities. In Ireland the Safety, Health and Welfare at Work Act 2005 Section 13 requires that all employers have a "duty to ensure the health safety and welfare of all employees while at work" (Safety, Health and Welfare at Work Act 2005). Employers responsibilities to employees regarding health and safety includes but is not limited to:

- The design, provision and maintenance of the place of work in a condition that is safe and without risk to health
- The provisions of systems of work, that are planned, organised and maintained so as to be safe and without risk to health.

Under Section 13 of the Act employees are also required to take reasonable care of their own health and safety and that of others and to cooperate with the employer in discharging their duties under the act. Employers must ensure that demands placed on employees are reasonable while at work. This legislation is quite onerous on the employer and requires them to do all that is reasonably practical. From the Act Reasonably practical means, "that an employer has exercised all due care by putting in place the necessary protective and preventative measures, having identified the hazards and assessed the risks to the health and safety". Under Section 20 an employer is required to have a safety statement, this identifies all risks and hazards in the workplace including the hazard of stress which is the concern of the present study. They must have a tailored system to manage and eliminate the risk of stress in the course of employment. As already discussed, the definition of stress is quite arbitrary and this can cause difficulty for employers. The non-physical injuries such as bullying and stress are often decided based on case law.

Stress in itself has not been actionable in the courts but long term severe stress can result in physical and mental illness as discussed previously and this could give rise to a personal injury claim, constructive dismissal, unfair dismissal, discrimination and disability discrimination. The Safety, Health and Welfare at Work Act, 2005 also defines a personal injury in the workplace as "(a) any injury, disease, disability, exceptional illness or any impairment of physical or mental condition..." (Safety, Health and Welfare at Work Act 2005).

A stress test was identified in Berber v Dunnes Stores in 2009 that provides some guidance for employers and organisations (Berber v Dunnes Stores Limited, [2009] IESC 10). Accordingly, the test to be used to identify negligence by the employer for non-physical injury in the workplace asks these 4 questions:

- 1. Has the employee suffered an injury, not just occupational stress?
- 2. If he/she has, is the workplace to blame?
- 3. If so, was the harm suffered by the employee reasonably foreseeable by the employer?
- 4. If so, did the employer fall below the standard of the reasonable and prudent employer n addressing the needs of this employee?

It is noteworthy that when an employer is aware that a particular employee has a higher susceptibility to stress the employer actually has a higher duty of care to that employee. Recent case law in Ireland in 2014, made a further legal breakthrough with a decision that occupational stress is not actionable but work related stress is actionable. The decision outlined that occupational stress is not actionable given that it is something that every employed person may experience at some stage of his or her working life for a number of

reasons. Workplace stress on the other hand may be actionable if certain legal criteria are met. It can be as a result of negligence, where excessive demands are made of an employee or where their complaints in the workplace go unheeded (Glynn v Minister for Justice Equality and Law & ors, [2014] IEHC 133).

#### 2.6 Work Related Stress in Teachers

This issue of occupational stress has been a growing area of concern in many professions but has been revealed as a particularly serious problem among schoolteachers (Montegomery and Rupp, 2005). Up to now, the author has focused on occupational stress generally; this will now turn to a discussion specifically on occupational stress in teachers. The term, teacher stress, gained momentum in the 1970's with a significant increase in studies focusing on stress in this profession (Kyriacou & Sutcliffe, 1977). Previous research surveys in the United Kingdom found typical rates of approximately one-third of teachers surveyed reporting their job as stressful or extremely stressful (Kyriacou, 1987; Gold and Roth, 1993). The issue is not limited to secondary school teachers but extends to primary school also, for example Chaplain found that approximately 23% of the primary teachers in his study identified their work as 'very' or 'extremely' stressful (Chaplain, 1995). ASTI also found that 3 out of 4 second level teachers felt under constant pressure as a result of stress (Murray, 2007). The particular study found that the common stressors were workload, teaching classes with a wide ability range and not having enough time to spend with students.

The problem of stress in teachers is an international problem for example several Australian studies have also reported that teachers are experiencing high levels of occupational stress (Bourke and Smith, 1994; Pithers and Fogarty, 1995). Furthermore, in exploring teacher stress in primary schools in Taiwan, Kyriacou and Chien discovered that 26 per cent of the teachers reported that being a teacher was either very or extremely stressful (Kyriacou or Chien, 2004). There is an enormous volume of international research carried out on matters such as teacher stress, teacher burnout, teacher motivation and teacher job satisfaction but such topics have received little focus in Ireland.

#### 2.7 Irish Research on Causes of Work Related Stress in Teachers

In 1991, the largest body of Irish research on occupational stress in teachers was carried out and involved a sample of 2800 teachers including primary teachers, secondary teachers and lecturers at further education level (Wynne, Clarkin and Dolphin, 1991). This study involved the use of a general occupation stress questionnaire and a teacher specific one. The results of the general occupational questionnaire found the top stressors in each teacher category included; having too much work to do, insufficient resources and feeling undervalued. At secondary school level, morale and organisational climate were also included in the top five stressors. All of the top five stressors in post primary educators arose from the organisation of work. The results of the teacher specific questionnaire showed that the main stressors in secondary school teachers were poorly motivated students, difficult classes, pupils who show a lack of interest, inadequate salary and responsibility for pupils. There was a high level of concordance between secondary school teachers and post-secondary teachers, which included teaching staff at further education level. This study provided a vast amount of detail on the issue in Ireland however much has changed in the educational system in the interim and although it provides an insightful background, it is at this stage extremely dated.

Following on from this a more recent investigation was undertaken by the ESRI which focussed on occupational stress at primary school level. This research uncovered that 45% of primary teachers experienced occupational stress and 70% of principles (Darmody and Smith, 2011). This study focussed on the link between job satisfaction and occupational stress. It found that overall the participants were satisfied in their job but a significant portion of the sample were experiencing stress at some level with 40% feeling fairly stressed and 6% feeling very stressed. This research found that stress was significantly lower in teachers who had well behaved students. It also found that stress levels were higher where parents' attendance at meetings was low and they lacked

involvement. This again was an intuitive piece of research but was limited to primary school teachers of 9-year-old students.

The final study to look at work related stress among teachers in Ireland was carried out in 2011 and involved interviews with a sample of 15 secondary school teachers (Kerr, Breen, Delaney, Kelly and Miller, 2011). Pupil discipline was the single biggest stressor among this sample but other causes of stress included; a lack of support from parents in disciplinary action. Interestingly in contrast to some of the literature only a few of the participants mentioned high volumes of work as a source of stress with many stating that it was expected during school term. Again, it is important to note that the sample size of 15 interviews is extremely limited and inferences can be difficult.

# 2.8 International Research on Causes of Work Related Stress in Teachers

Much international research has been carried out in this area with findings similar to that of the Irish research discussed above. Amongst the international literature the main sources of stress have included; heavy workloads, time pressure, managing the students' behaviour and learning, relations with colleagues, coping with innovation and change, problems with school management and administration and poor working conditions (Brown, Ralph and Brember, 2002; Chan, Chen, & Chong, 2010). McCormack and Barnett group such sources into four stress domains in relation to work related stress in teachers. The personal domain relates to stress attributed to self-perceived adequacy as a teacher. The student domain relates to stress attributed to student misbehaviour. The school domain relates to stress attributed to distant entities such as the system's head office, and government educational policies (McCormack and Barnett, 2011). In an attempt to frame the research aims of the current study the author will discuss some of the findings and trends which have been highlighted in the international research.

#### 2.8.1 Student Domain

Numerous student domain stressors have been highlighted in connection with work related stress in teachers. Among the most prominent are disciplinary problems in class and teaching disruptive students. These have consistently been associated positively with teacher burnout, presenting a serious demand on teachers (Hakanen, Bakker and Schaufeli, 2006; Kokkinos, 2007). Forlin, in his quantitative study of 571 primary school teachers in Queensland, found that one of the most stressful factors for teachers was the behaviour of the child or student (Forlin, 2001). In Hong Kong, managing student's behaviour again appeared among the list of causes of stress (Chan, Chen, and Chong, 2010). There is further evidence to suggest that the main sources of stress in Greek teachers are related to discipline problems and interaction with students and colleagues (Antoniou, Polychroni and Vlachakis, 2006).

#### 2.8.2 Personal Domain

This category of stressors can also be referred to as professional distress and is associated with a lack of professional advancement. In a UK study of 465 lecturers at further education level, it was discovered that the most common cause of stress was the lack of opportunity for promotion and advancement and lack of opportunity and support for scholarly activity (Kinman, 1998). Forlin's study also found that professional competence was a source of high levels of stress for teachers (Forlin, 2001). However, Australia has experienced a move towards de centralisation placing more responsibility for decision making on the school itself. This has required teachers to be involved in much of the decision-making process and overall improvement of the sector (Hargreaves and Goodson, 1996). This study was carried out on primary school teachers who were specifically involved with including a child with intellectual disabilities therefore although there will be similarities they will also experience different challenges to that of a mainstream primary or secondary schoolteacher.

#### 2.8.3 School Domain

Kinman's study also found another factor for high levels of stress was the onerous administrative duties that were expected from teachers. Blatchford and Martin, in their study of UK teachers, also found excessive paperwork was one of the most prominent stressors, along with time restraints and the implementation of new educational initiatives (Blatchford and Martin, 2001). The educational system in the UK would share many similarities to that of the Irish system. However, neither of the above studies specifically investigated stress in second level teachers. Austin, Shah and Muncer found that the most common work stress among their participants was work overload (Austin Shah and Muncer, 2005). This study was small scale and involved a quantitative approach using Fimian's Teacher Stress Inventory with a sample of 50 high school teachers. The results also showed a correlation between time management and stress and concluded that role overload with too little time were the main factors which resulted in stress in the high school teachers. Heavy workloads and time pressures were also among the main sources of stress in Hong Kong (Chan, Chen, and Chong, 2010). Pithers and Fogarty also provided evidence that large workloads and few resources were major causes of stress (Pithers and Fogarty, 1995).

## 2.8.4 External Domain

There is some evidence to show that external factors such as educational reforms, government initiatives and the educational system itself have the effect of causing stress among teachers. In Hong Kong, educational reforms introduced in recent years were causing significant contribution to stress levels. Kyriacou and Chien found that the main source of stress in their sample was the changing education policies of the government (Kyriacou and Chien, 2004). Arguably, such factors will vary across countries perhaps more so than other factors given that the educational set up and structures as oppose to the role of teaching itself may be in significantly different.

#### 2.9 Gender Differences

Many studies have explored whether there are differences between males and females in sources, levels and coping with stress. For example, McCormack and De Nobile found in their study of both primary teachers and non-teaching staff, that males were more stressed than females overall (McCormack and De Nobile, 2011). Antoniou, Polychroni and Vlachakis, a more relevant study to the current research given that it looked at both primary and high school teachers, found that female teachers experienced significantly higher levels of occupational stress compared to males, particularly in relation to difficulties they confronted in the classroom and workload (Antoniou, Polychroni and Vlachakis, 2006). Klassen further supported the idea of variations between genders when his research showed female teachers faced greater workload stress and greater classroom stress from student behaviours. Female teachers averaged 13% more workload stress and 8% more classroom stress than male teachers (Klassen, 2010). Nevertheless, although Klassen looked at teachers at both primary level and high school level it is not clear what specific differences are associated with high school teachers. It has been argued that greater levels of stress experienced by female teachers may be a consequence of nonwork related factors. Females may have a higher total workload between domestic and school tasks (Greenglass and Burke, 2003). Irish research has also found that postprimary female teachers reported higher levels of workload stress than males in terms of time pressure at work (Wynne, Clarkin and Dolphin, 1991). Although, more recent Irish research observed no clear associations between type of stress and gender (Kerr, Breen, Delaney, Kelly and Miller, 2011).

#### 2.10 Geographical Location

Distinctions in sources and levels of stress have also been exposed in respect to geographical location but in particular rural versus urban schools. One of the main studies to examine this variable found that urban teachers in Georgia and North Carolina experienced notable variations to rural secondary teacher in the areas of poor working conditions and poor staff relations with urban teachers experiencing more stress because

of these factors. This study also identified that pupil misbehaviour and poor working conditions predicted burnout for urban schoolteachers (Abel and Sewell, 1999). No extensive research has been carried out in relation to this variable in Ireland to date.

#### 2.11 Age and Years of Service

Huberman carried out an informative study based on 160 interviews with high school teachers in Switzerland. He compared the ways in which teachers with varying lengths of service viewed their working life and identified some key stages that teachers typically seemed to experience as their careers developed (Huberman, 1993). McCormack and De Nobile revealed in their study that younger staff experience higher levels of stress to that of their older colleagues (McCormack and De Nobile, 2011). This study also exposed how younger teachers reported more incidents of burnout predominantly in terms of emotional exhaustion and disengagement. Burnout, although different to stress, has been described as a consequence of long periods of stress. Authors have maintained that younger teachers devote a vast amount of energy in the early stages of their teaching career in order to achieve their desired objectives. In conjunction with this, they are also exposed to the multiple stressors of the teaching environment (Pines and Aronson, 1988). On the other hand, there is conflicting evidence in the US where one study found as age increased, agriculture teachers reported higher levels of occupational stress (Lawver and Smith, 2014). A possible explanation could be that as a teacher gets older they may find it difficult to accommodate change. Technology advances amongst other new processes may be time consuming and this along with perhaps a hectic family life may increase the prevalence of stress.

In previous Irish research, it was also found that there was a relationship between age and the existence of stress in teachers although this was a weak relationship. Moreover, the research did discover that in secondary school teachers that there was a link between age and career development stress with older teaching professionals less likely to report such stress (Wynne, Clark and Dolphin, 1991). In addition to this, the older participants reported higher levels of support from school management than that of the younger participants in the survey. More recent Irish research has also uncovered differences relating to age and pupil disruption as a source of stress (Kerr, Breen, Delaney, Kelly and Miller, 2011).

#### 2.12 Coping with Stress

Any research involving work related stress should also include literature on the coping mechanisms in an effort to reduce or eliminate some of the stress. Unfortunately, much of the research which has been carried out in relation to teacher stress has focussed predominantly on sources of stress as oppose to coping strategies. From the definition of stress which we have adopted, "a mismatch between the demands placed on an individual and their ability to cope with such demands", we can see that coping is an integral part. Coping style refers to the manner in which someone attempts to manage a stressful event and can be determined by the specific circumstance a person finds themselves in. From the research that has been carried out in the area of coping with stress, a number of categories have emerged. These consist of organisational coping, avoidant, problem facing, relaxing, emotional disclosure and social support. Brown and Ralph suggested additional strategies to minimise the impact of work related stress, which consisted of in service training, assertiveness techniques, communication skills, effective time management and relaxation techniques (Brown and Ralph, 1992). These can be associated with any profession as oppose to uniquely to that of teaching. Studies exclusively examining teacher stress have found a number of popular coping strategies including; trying to relax after work, taking action to deal with problems, keeping feelings under control, discussing problems and express feelings to others and recognising one's own limitations (Borg and Falzon, 1989; Cockburn, 1996; Benmansour, 1998). It is also important to keep in mind that coping strategies are rarely used singly and are more effective if a combination of strategies is used. Having said that, used singly or in combination does not mean that they will always prove successful.

#### 2.12.1 Avoidant

Some people choose to avoid a stressful event. This would include those who do not take on any additional work or responsibility within their organisation and are happy to continue on the same course each day. While this may minimise stress levels it can also have the effect of reducing motivation. In addition, those that use the avoidant technique suppress their feelings of stress and therefore can negatively impact on the coping method of sharing feelings. According to Wegner, this method can backfire and create a rebound effect where one actually thinks more about the forbidden thought (Wegner, Schneider, Carter and White, 1986). Avoidance is considered a palliative technique. Further palliative techniques include; drinking, smoking and the use of prescriptive and over the counter drugs. These are negative mechanisms for coping with the existence of stress and in terms of the teaching profession are not in the interests of either the teacher or the student. The above palliative techniques are in some cases behavioural manifestations of stress also.

#### **2.12.2 Action Planning**

Action planning is also known as problem focussed coping. Cockburn carried out research with a sample of primary school teachers in the UK. She discovered the most effective techniques included; ensuring you understand what you are teaching, thorough lesson preparation, finding the humour in the situation, discussing concerns with other teachers and setting priorities (Cockburn, 1996). Effectiveness varied from 62% to 69%. Kyriacou distinguished between two main individual coping strategies; direction action techniques and palliative techniques (Kyriacou, 2001). Direct action techniques involve the teacher identifying what action they can take to eliminate the stress they are experiencing, addressing the issues at hand or the source of the stress and facing it head on. Palliative techniques refer to methods of relieving tension and anxiety that have built

up in the individual. Irish research is limited in this area but a previous study found the most utilised coping process to be task orientation with over 40% utilising this option (Wynne, Clarkin and Dolphin, 1991).

#### 2.12.3 Relaxation

Relaxation is meant to reduce the psychological arousal associated with stress. Within this category of stressors are; meditation, guided imagery, progressive muscle relaxation, yoga, mindfulness and biofeedback.

#### 2.12.4 Exercise and Hobbies

Exercise has long been identified as a practice for combating stress. Not only does it keep the heart healthy but also it helps to deplete stress hormones and release mood-enhancing chemicals, which in turn help us to cope with stress (Stress Management Society, 2015). This can also positively impact on stress related aches for example neck, back and headaches.

## 2.12.5 Seeking Support

This is considered one of the most important resources in coping with stress and can include seeking support from friends or colleagues who understand and are in the same situation. This emotional disclosure can also include writing about the stress or day to day events leading to this feeling particularly for those who find it difficult to express emotions. Furthermore, there has been an emergence of online support groups in an attempt to alleviate stress among teachers. Such groups initially emerged in the UK to provide support to interns and those new to the profession. They are now growing in popularity among other professions and more experienced teachers (Selwyn, 2000).

# 2.12.6 Organisational Coping Strategies

Organisational methods include initiatives introduced by the school or government structures and to some extent can overlap with individual coping. One of the most notable attempts in recent years has been the introduction of the employee assistance service for teachers in 2006 in which they can receive confidential counselling services from a range of professional counsellors and psychotherapists. Literature on usage of such service is still limited. Cockburn found in his research that among the techniques least likely to be used to reduce stress were attending a seminar on stress and discussing concerns with other professionals for example doctor or counsellor (Cockburn, 1996). Literature on this source of coping is sparse which would suggest that stress is still considered something that is the responsibility of the individual. However, it would appear with the prevalence of stress in the teaching profession there is a possibility that it is an organisational problem as oppose to individual. If this were true then it would require an organisational solution as oppose to individual coping strategies.

Many organisations have well developed health and well-being programmes in place for employees. Such programmes have the potential to significantly improve employee wellbeing, commitment and performance and in turn reduce the experience of stress or manifestations and health implication associated with stress. Previous research has found that positive results from the instigation of such initiatives include; improved diet, increased exercise, quitting smoking, and the acquisition of stress reduction techniques (Demmer, 1995).

## 2.12.7 Differences between Genders and Coping

Some literature has argued that there are differences in the coping techniques adopted by males and females. In Greece a study on teachers working with students with special needs found that women reported more extensive use of emotion focussed forms of coping and in particular stable relationship technique (Antoniou, Polychroni and Vlachakis, 2006). This study also found that female teachers were more likely to seek
social support in coping with the problem of stress than males would. Research carried out in Hong Kong reported that males were more restricted in expressing emotions and females had a greater tendency to seek advice or social support (Chan and Hui, 1995). On the other hand Lawver and Smith found in the USA found that there were no significant correlations between gender and coping techniques (Lawver and Smith, 2014).

#### 2.13 Conclusion

According to the literature discussed above it is apparent that stress has emerged as a real problem for many in the teaching profession. There appears to be consistency in relation to sources of stress for teachers which include; student domain, personal domain, school domain and external domain. In addition, there are also a number of common coping mechanisms utilised in addressing or eradicating the existence of stress which include; action planning, hobbies, exercise, relaxation, professional help and seeking support from colleagues and friends. However, there are variations across national educational systems, prevailing attitudes and values so comparison to international literature can be extremely difficult. In addition to such diversities, one must also be aware of the contrasting cultural backgrounds. Furthermore, many of the studies examined above have involved different samples and different measures to that which will be utilised in the present study. Whilst there are certainly strong similarities internationally and they provide useful guidance in formulating the content of the measure to be used there is still a requirement for an in depth investigation from an Irish context due to the gap on the literature. Therefore, whilst it is important to examine the international literature in the area as a source of guidance, it could be detrimental to apply it to an Irish setting in an attempt to address the problem.

This study will address the above gaps in the literature in Ireland by examining the above themes from within an Irish context. This will include investigating whether there are any differences in sources of stress and coping mechanisms in Ireland as well as any additional sources of stress that have not been covered extensively in the existing literature. It will also include an investigation of any key differences across gender, age, levels of experience and rural and urban schools as this has also been a popular focus in much of the international literature but again has received very limited focus in Irish secondary school teachers.

## **Chapter 3: Research Question**

#### **3.1 Research Question**

The overall research questions and aim is to investigate whether secondary school teachers in Ireland experience work related stress and to what extent. Within this, there are a number of objectives which are derived from the existing literature. As discussed in the literature review, there is vast international research in the area but no substantial recent research has been carried out in Ireland for some time. Overall, the purpose of this research is to add to the sparse Irish literature on the topic and provide recommendations in dealing with any example of stress. It is imperative to avoid a trend emerging in other countries where recruiting teachers is posing to be a genuine problem. Furthermore, if it is a potential problem it is not only the teachers that are deserving of investigation but also whether there is a negative impact on the students and therefore society as a whole.

As previously stated there is vast literature that looks at stress levels in teachers but it is sparse in terms of frequency. Much of the literature looks at teacher specific stressors therefore it is the aim of the author here to also investigate this from an Irish context. Incorporated in many studies looking at stress in any profession are the manifestations and the coping mechanisms and this will also be a focus in this particular research again in an attempts to fills the gaps which currently exist in the Irish literature. Finally, there are often differences between location, gender, age, experience and the existence of stress or the sources of stress. There is inconsistency in much of the research on this with some studies finding no differences but many that do find significant contrast. With this in mind the author hopes to establish what the case is in the present context. Below the author summarises the objectives of the present study.

#### **Objective 1**

Establish the extent of stress if any experienced and how frequently it is experienced,

## **Objective 2**

Determine what the most prominent causes of occupational stress in Irish secondary school teachers are.

## **Objective 3**

What are the manifestations arising from the existence of stress in this particular sample.

## **Objective 4**

Determine which are the most commonly utilised methods for coping with the existence of work related stress and how effective are such methods when considered alongside the level of stress experienced.

## **Objective 5**

Investigate whether there are any differences in relation to the levels of stress and sources in a number of variables; gender, location, age and years of experience.

## **Chapter 4: Research Methodology**

The following chapter outlines the research approach and methodology which the author utilised in order to achieve the aims and objectives of the current study. The approach adopted was that of a quantitative method. Included in the discussion below will be a justification for such methodology as well as the limitations associated with it.

#### 4.1 Research Philosophy and Approach

In gathering information the existing literature was scrutinised and analysed. As stated already much of this literature was international and this formed the basis for the overall research aims. The epistemological approach is primarily of a positivists view as existing theory has been used to develop the research questions. It has been argued by many researchers that reaction to stress is subjective and therefore any investigation into stress is best treated qualitatively (Bryman, 2004; Gubrium and Holstein, 1997). However, the author has shown in the literature review that there is a wide consensus in relation to the stress causes and coping methods in teachers internationally and believes given the lack of substantial research previously carried out in Ireland a quantitative measure was a more appropriate approach. The research is undertaken in a value free manner in that the data cannot be altered in the same manner as if an interview was conducted and the researcher framed questions in a bias manner.

There are two major research approaches; deduction and induction. Deduction involves the development of a theory which is subjected to a rigorous test (Saunders, Lewis and Thornhill, 2009). Induction on the other hand is the opposite and first establishes the data from a sample of participants and then develops a theory. Therefore, deduction can be categorised as a positivist approach and consequently will utilise a quantitative method of research. Inductive can be categorised as an interpretive approach and thus utilising a qualitative method of research. The research approach applied by the author in this instance was deductive involving a quantitative method. The author decided that this was the most beneficial and appropriate approach in the present research.

Quantitative research has been defined as explaining phenomena by collecting numerical data that are analysed using mathematically based methods (Aliaga and Gunderson, 1999). As already mentioned, it is a deductive approach to the relationship between theory and research. Much of the exiting research in this area of work related stress among teachers has predominantly involved quantitative methods (e.g. Ganster, Mayes, Sime, and Tharp, 1982; Lazarus and Folkman, 1984). An extremely important aspect of this particular research was that it was not only confidential but also anonymous. Quantitative measures offer less opportunity for bias and offer greater anonymity. This was extremely important given the sensitive nature of some elements of this topic. The quantitative measure which will be employed by the researcher will be questionnaires. This is a technique of data collection in which each person is asked to respond to the same set of questions in a predetermined order (De Vaus, 2002). This will allow for statistical analysis of a large body of information and may therefore be possible to draw inferences or associations based on such numbers. The author felt that a larger body of research was relevant in this particular topic in order to make valuable recommendations in the area of work related stress in teachers. Furthermore, as there has been a dearth in recent research in this area in Ireland it was hoped to gain as much knowledge as possible. With qualitative methods it can be difficult to gain conclusive evidence given that the sample size is generally far smaller than that of quantitative approach.

#### 4.2 Limitations

It is accepted that there are some limitations with such a method. The main disadvantage is that the questions are fixed and often do not allow for further elaboration. In an attempt to overcome this in part the questionnaire included two opened ended questions which allowed the teacher to include causes of stress and coping mechanisms which were not already mentioned in the survey. The issue however with open ended questions is that they are often ignored by participants whereas the more direct definitive questions are answered. Qualitative methods such as interviews allow further exploration of rational and reason for the results of the survey data. It is acknowledged that where possible a mixed method approach would produce some extremely valuable information however with the time constraints of this particular research this was not possible and as already mention quantitative was the best method to achieve the research objective.

#### 4.3 Bias

Surveys were circulated in April with 1 month allowed for completion. This was extended due to the initial low response rate. It could be argued that the time of the year may have impacted on the questionnaire. Distribution was directly after the teachers came back from a two week Easter break so potentially were not as stressed as other times in the school year. However on the other hand, for many with exam classes this is a particularly demanding time in the school calendar so any stress experienced could be higher as a result. On the other hand subject bias is a real threat to qualitative approaches such as interviewing and this was a risk the author sought to avoid. The sampling method used was that of convenience and snowball. Convenience sampling involves selecting participants who are easily obtained (Saunders, Lewis and Thornhill, 2009). A convenience sample of 9 was selected as they were known to the author and then a snowball approach was endorsed whereby they distributed the survey via email to all of the teachers in their schools. There are disadvantages with convenience sampling in that they appear in the sample because they were easily obtained and in this case known to the author. Nevertheless, a convenience sample of 9 is quite small chosen as catalysts to communicate the survey to a wider network of secondary school teachers unknown to the author. The snowball method has been criticised for potential bias as respondents are more likely to identify others similar to them when distributing. However, in this situation the initial 9 teachers distributed the surveys to all teachers in their school as oppose to a selected group.

#### 4.4 Sample

The sample in this study was based on convenience sampling and included seven secondary schools across Ireland. This sample technique was necessary based on access to the desired population and available resources. There are some criticisms associated with this method including that it is prone to bias and influences beyond the authors control (Saunders, Lewis and Thornhill, 2009). However, the author in as far as possible tried to ensure that a representative sample of the population was included. The locations of the schools included; Clare, Meath, Dublin, Galway, Donegal, Westmeath and two schools in Limerick. The schools in the sample were situated in both rural and urban areas. Eighty respondents participated in the survey and approximately four hundred surveys were distributed in total demonstrating a response rate of 21%. The number of female participants was 59 and the number of male participants was 21. The number of participants in each age category was as follows: 26 were between 20 to 30 years of age, 35 were between 31 and 40 and 19 were greater than 40 years of age. In terms of experience 17 participants had 0 to 5 years, 28 had 6 to 10 years, 14 had 11 to 15 years teaching experience and finally 21 had more than 15 years of teaching experience. The survey was completed online via survey monkey and distributed via e mail to each teacher. Participants were provided with an explanation on what the study was about, the duration, the value in taking part, who the author is and why the study is being conducted. They were also provided with the definition of stress which the author had chosen for the purposes of the research and guidelines for completion were also included. Anonymity and confidentiality were also guaranteed. Participants were asked to complete the questionnaire after clearly indicating agreement to participate and were informed that they could withdraw at any time. A pilot study was carried out among 5 members of the targeted group. The reason for this was to ensure that the questions and meanings were clear and easy to understand.

#### 4.5 Instrument

The survey consisted of 3 sections. Section 1 included questions on biographical information including age, sex and level of experience. This section also consisted of four other questions; one to establish what level of stress if any existed, another question was to ascertain the frequency of the stress, another on whether they had exam classes, and the final question was to establish whether any had considered leaving the profession as a result of stress. Previous research has highlighted the lack of information on the frequency at which a teacher experienced stress therefore the author felt it was pivotal to include it in this study (Mazzola, Schonfeld and Spector, 2011). As outline earlier one of the main objectives of the author was to examine the relationships between the variables and the levels and sources of stress which is why much of the above was included.

Section 2 consisted of the Fimian Teacher Stress Inventory designed to measure teachers' perception of stress as it relates to their occupation (Fimian, 1988). The test identifies sources and also manifestations of stress. It comprises of 49 stress-related questions in total divided into 10 subsections. The first 5 subsections are concerned with sources of stress for teachers and the last 5 represent manifestations of stress. The 5 sections concerned with sources of stress comprise of; time management, work related stressors, professional distress, discipline and motivation and finally professional investment. The 5 sections concerned with manifestations comprised of; emotional, fatigue, cardiovascular, gastronomical and behavioural. The 10 sections collectively represent the 'total stress score' for teachers. Participants were requested to read each statement and respond using a 5-point likert scale from 1= 'strongly agree', 2= 'Agree', 3= 'neutral', 4= 'disagree' to 5= 'strongly disagree'. A description was provided to explain what your response would mean thus strongly agree was extremely noticeable, agree was very noticeable, neutral was moderately noticeable, disagree was barely noticeable and strongly disagree was not noticeable.

The justification in using this survey was that it is not only pre tested for reliability and validity but it also incorporated the core themes based on the research carried out in the

literature review. It covered the teacher's specific sources of stress which were outline in much of the previous Irish and international research including the student, personal and school domains as discussed by McCormack (McCormack and Barnett, 2011). The survey also included much of the common consequences or outcomes of stress highlighted in the research. An open ended question was also included in this section so that participants could include sources of stress which they experienced in their job but which had not already been included within the teacher stress inventory.

Section 3 of the questionnaire was concerned with the methods used by the respondents in coping with stress. This was based on information discovered from secondary data included in the literature review (Brown and Ralph, 1992; Cockburn, 1996; Benmansour, 1998; Wegner, Schneider, Carter and White, 1986; Kyriacou, 2001; Wynne, Clarkin and Dolphin, 1991). The author in this case was unable to gain access to a pre-existing validated measure which sought to establish the information necessary to achieve the aims of the study. This also included an open ended question to allow the respondent to include any coping strategies used which were not already mentioned thus give the opportunity to expand further on the current body of literature. As some modifications were made to this survey namely the addition of a coping questionnaire which had not been previously established, it was necessary to establish Cronbach alpha values to test reliability. This is a method utilised by a vast number of researchers and is deemed an important concept in the evaluation of questionnaires (Tavakol and Dennick, 2011).

#### 4.6 Analysis

Questionnaire data files were downloaded from the survey monkey website in Excel format. The files were formatted and coded in order to enable them to be analysed using SPSS (Statistical Package for Social Scientists) v 22. Cronbach Alpha values were established to test for reliability. The results are outlined in Chapter 3. A number of statistical tests were carried out on the major areas thus allowing the author to compare the relationship between two variables. It was thus possible to ascertain whether there

were co relations in terms of coping and sources of stress and that of age, gender, level of experience and rural or urban area.

## **Chapter 5: Analysis and Findings**

This chapter will analyse the findings of the quantitative research carried out. The structure of this chapter will follow each objective of the study. Before going into detail on the data and significant relationships the author tested for reliability of each variable. This included testing for reliability of each of the stressors, manifestations contained in the teacher stress inventory and also the coping mechanisms. Each of the five sections relating to teacher stress was found to be reliable with alpha coefficients between 0.71 and 0.87. However, when testing for reliability of the five sections relating to teacher stress reliability was not established in all sections. An alpha coefficient of 0.56 was found for fatigue manifestations and an alpha coefficient of 0.61 for behavioural manifestations. Finally, reliability of coping mechanisms was not established but this was anticipated given that each coping question was an independent and varying method to the other.

#### 5.1 Objective 1: Level and Frequency of Job Stress

The first objective was to establish the extent of stress, if any, was experienced by the sample and how frequently stress was experienced if at all. When asked "do you find teaching stressful" 99% of the sample experienced stress at some level with 21% finding teaching very stressful. The categorical breakdown is illustrated in Diagram 1. Although, based on previous international research, it was expected that there would be a significant percentile that would experience stress. When asked if the participants had ever considered leaving the teaching profession just over half (51%) answered yes.

#### Do you find teaching stressful?



#### Diagram 1: Bar chart on whether teachers find teaching stressful

As previously stated the teacher stress inventory was the research tool used to establish an overall perceived stress level score for each participant. This considered various sources of teacher stress in conjunction with stress manifestations. In table 2 the reader can see the overall mean score of 3.16 which is quite high with the highest potential score being 5. I addition, the standard deviation of 0.44 is quite low. This would indicate that on average the response to the statements was one which indicated medium strength or that the stress was moderately noticeable. Whilst this gives us a broad picture of the sample's perceived stress levels further analysis is required before drawing any significant conclusions.

Descriptive Statistics							
	Ν	Minimum	Maximum	Mean	Std. Deviation		
TSI	80	2	4	3.16	.422		
Valid N (listwise)	80						

#### **Table 1: Mean Values of Teacher Stress Inventory**

In order to delve deeper an additional question was asked directly concerned with the frequency with which this sample of teachers experienced stress. Results are illustrated below in diagram 2. As exemplified in the diagram below, 18.75% fall into the likert category of "most of the time" and 42.50% experience stress "about half of the time". The question referred to the existence of stress in a typical week and it is alarming that such large percentages are experiencing this between 2 and 3 days a week.



Diagram 2: Bar Chart on how frequently in a typical week stress is experienced

#### 5.2 Objective 2: Sources of Job Stress

The next objective of the author was to examine the causes of the job related teacher stress in detail; time management, work related stress, professional distress, discipline and motivation and professional investment. It was discovered that on average the highest scoring stressor of the five categories was time management. The mean results of each category are demonstrated in table 2 below. Time management had a mean value 4.00. Based on the likert scale adopted this translates that on average the sample felt that the stressors were very noticeable or of great strength. Overall, there was very little difference between four of the categories; time management, work- related stress, professional distress and discipline and motivation however professional investment had the lowest mean of all. This had a mean value of 2.98 giving it medium strength and therefore indicating that it was moderately noticeable. Importantly there was a high standard deviation within this category and therefore accurate interpretation is difficult and limited.

	Time Management Scale	Work Related Stress Scale	Professional Distress Scale	Discipline and Motivation Scale	Professional Investment Scale
Mean	4.001	3.9396	3.7125	3.458	2.975
Ν	80	80	80	80	80
Std. Deviation					
	0.55021	0.70415	0.75697	0.87414	0.8425

#### Table 2: Mean Scores of each source of stress

Further analysis was carried out on the sample of participants that answered that they were "very stressed". The mean scores within this category show similarities to the overall mean scores with time management and work- related stress scoring the highest. Standard deviation was high again for many of them but relatively low within time management thus further supporting the theory that time management appears to be the most significant stressor.

		Time Management Scale	Work Related Stress Scale	Professional Distress Scale	Discipline and Motivation Scale	Professional Investment Scale
Very Stressful	Mean	4.0765	4.0488	3.7529	3.5282	2.9412
	N	17	17	17	17	17
	Std.	0.00504	0.77440	0.00755	0.05405	4.04000
	Deviation	0.38524	0.77449	0.86755	0.95405	1.01369

#### Table 3: Mean Scores of each Stressor among the "Very Stressed"

In addition, the author decided to carry out an overall examination of the statements scoring the highest. This was based on the highest percentage of participants selecting agree and strongly agree as an answer to each statement. The list is illustrated in table 4 below. Through this examination the author was given a clearer picture of the critical stressors within each category as oppose to just concentrating on the top level analysis.

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I try doing more than one thing at a time	45%	51.3%	0%	3.8%	0%
I easily over commit myself	42.5%	45%	8.8%	3.8%	0%
There isn't enough time to get things done	51.3%	35%	7.5%	3.8%	2.5%
There is too much work to do	43.8%	41.3%	8.8%	6.3%	0%
I feel uncomfortable wasting time	26.3%	57.5%	11.3%	3.8%	1.3%
I lack recognition for the extra work and/or good teaching that I do	45%	37.5%	12.5%	5%	0%
because some students would be better if they tried	21.3%	61.3%	12.5%	1.3%	3.8%
attempting to teach students who are poorly motivated	36.3%	43.8%	10%	6.3%	3.8%
There is too much administration and paperwork	35%	36.3%	16.3%	12.5%	0%

## Table 4: Breakdown of the statements scoring the highest within each category

#### 5.3 Objective 3 Manifestations of Stress

The author also wanted to investigate what the predominant manifestations of stress were. As can be viewed in table below the group of manifestations which scored the highest overall mean were emotional manifestations, however there was not an enormous difference between emotional, fatigue and cardiovascular. Emotional manifestations consist of insecurity, vulnerability, depression and anxiety. Of the three the standard deviation was lowest within the fatigue category which consisted of procrastination, sleeping more than usual exhaustion and physical weakness. This scoring indicates that the sample in the survey experienced moderate levels of the above manifestations. Nevertheless, reliability was not found in relation to fatigue manifestation so interpretation should be carried out with caution. The category which scored the lowest and did not seem to be a problem for the average was that of the behavioural manifestations but again reliability was not established with regard to this category. Behavioural manifestations consisted of using alcohol, prescriptive and over the counter drugs and calling in sick.

					Std.
	Ν	Minimum	Maximum	Mean	Deviation
Emotional Manifestations Scale	80	1.00	5.00	3.2650	.82602
Fatigue Manifestations Scale	80	1.60	4.60	3.1500	.66713
Cardiovascular Manifestations	80	1.00	5.00	3.0041	1.10566
Scale					
Gastronomical Manifestations Scale	80	1.00	4.33	2.5291	1.01397
Behavioural Manifestations Scale	80	1.00	3.75	1.5187	.62992
Valid N (listwise)	80				

Descriptive	Statistics
Descriptive	otatistics

#### Table 5: Mean and Standard Deviation of Each Stress Manifestation

A closer examination of the statements within each category of manifestations was carried out similarly to the above analysis of sources of stress. This highlighted the percentages that scored the highest in agreed and strongly agreed for the top five manifestations.

I Respond to Stress by	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
by physical exhaustion	16%	56.3%	14%	11.3%	3%
by feeling anxious	20	50	13.8	12.5	3.8
with feeling of heart pounding or racing	10.0%	47.5%	12.5%	16.3%	13.8%
by feeling unable to cope	5.0%	51.3%	22.5%	15.0%	6%
by becoming fatigued in a very short time	17.5%	38.8%	16.3%	23.8%	3.8%

**Table 6: Breakdown of Highest Scoring Stress Manifestations** 

#### 5.4 Objective 4: Coping Methods

The author went on to scrutinise the use of the varying coping practices adopted by the participants. The table below outlines the mean and standard deviation of each method. Action planning appeared to be the most practised with a mean of 3.81 and professional help was the least utilised with a mean of 1.32. There was little difference between the remaining coping processes; relaxation, exercise, hobbies and advice and support from friends and colleagues. Relaxation and hobbies scored identically with 3.10.

	N	Minimum	Maximum	Mean	Std. Deviation
Relaxation	80	1	5	3.10	.963
Exercise	80	1	5	3.60	.963
Hobbies	80	1	5	3.10	1.051
Advice and Support	80	1	5	3.32	1.188
Professional Help	80	1	4	1.32	.808
Action Planning	80	1	5	3.81	1.007
Valid N (listwise)	80				

Table 7: Mean and Standard Deviation of each Coping Mechanism

A breakdown for each coping method and how often they were utilised is illustrated in table 6. Interestingly 45% of the participants engaged in action planning "quite often" and 25% "always" used it as a source of eliminating stress. Action planning therefore not only had the highest overall mean but also received the highest percentile within the

category that "always" use this method of coping. The second most utilised coping option was exercise with 20% always using this approach and 33% using it "quite often". An inspection of the practice which was used the least; professional help, highlighted that 82.50% never endorsed this process.

	Never	Rarely	Sometimes	Quite Often	Always
Relaxation	3.8%	20.0%	48.8%	17.5%	10.0%
Exercise	1.3%	10.0%	36.3%	32.5%	20.0%
Hobbies	8.8%	15.0%	42.5%	25.0%	8.8%
Advice and					
Support	8.8%	17.5%	21.3%	37.5%	15.0%
Professional Help	82.5%	8.8%	2.5%	6.3%	0.0%
Action Planning	3.8%	6.3%	20.0%	45.0%	25.0%

Table 8: Breakdown of the Frequency of use of each Coping Mechanism

The next section focused on an analysis of the relationship between the job stressors and the coping mechanisms. This was necessary in order to establish the effectiveness' of the varying coping techniques. As we are looking at the likert scale ordinal variable of coping techniques the relationship between coping and job stress was tested using a Spearman's Rho. The results indicated that statistically there were no highly significant or moderate correlations between sources of teacher stress and the popular coping methods. However, it is worth noting that there was a negative weak significant correlation between work - related stress and exercise (r = -.27, p= <0.05) and also between work - related stress and hobbies (r = -.24, p = <.05). This indicates that there may be potential to investigate further the theory that as hobbies and exercise are increased work related- stress factors decrease. Furthermore, there was also a negative weak significant correlation between professional distress and relaxation (r = -.28, p =<.05), exercise (r = -.25, p <0.05) and hobbies (r = -.25, p < 0.05). This also highlights the possibility of exploring the possibility that professional distress stressors decreases with the increased usage of relaxation, exercise and hobbies. The results of this correlation test can be seen in table 7.

		Time Management	Work Related Stress	Professional Distress	Discipline and Motivation	Professional Investment
	Correlation Coefficient	0.062	-0.119	282 <sup>*</sup>	-0.09	-0.199
Relaxation	Sig. (2-tailed)	0.586	0.293	0.011	0.429	0.076
	Correlation Coefficient	-0.022	272 <sup>*</sup>	249 <sup>*</sup>	-0.111	-0.178
Exercise	Sig. (2-tailed)	0.85	0.015	0.026	0.327	0.113
	Correlation Coefficient	0.07	236 <sup>*</sup>	252 <sup>*</sup>	-0.151	-0.133
Hobbies	Sig. (2-tailed)	0.538	0.035	0.024	0.181	0.24
Advice and	Correlation Coefficient	0.166	0.147	0.142	0.034	0.043
Support	Sig. (2-tailed)	0.141	0.192	0.208	0.767	0.704
Professional	Correlation Coefficient	0.035	-0.011	-0.143	0.016	0.037
Help	Sig. (2-tailed)	0.759	0.926	0.204	0.885	0.742
Action	Correlation Coefficient	0.001	-0.028	-0.149	0.025	0.041
Planning	Sig. (2-tailed)	0.991	0.807	0.188	0.826	0.721

#### Table 9: Spearman's Rho Test on Sources of Stress and Coping

An additional question was asked in relation to whether or not the participants had taken part in a stress reduction course and 88% answered no with the remaining 12% stating they had previously attended such a course. This could be for a number of reasons including; the potential lack of knowledge around such an option or that it is possibly considered ineffective based on others experience of it. When asked if they felt that they were given adequate support from the education system an alarming percentage answered no; 95%. In order to ascertain whether there were any new additional coping strategies which were being endorsed and open ended question was included to allow for such submission. These submissions will be discussed in further detail in the subsequent chapter.

#### 5.5 Objective 5: Differences based on Gender, Location, Age and Experience

The final objective of the author was to investigate whether there were any statistical significant differences between the variables and perceived stress levels, frequency of stress, sources of stress and coping with stress. In order to establish whether there were

any variances a number of tests were carried out. The relevant tests for normality were carried out and where normality was not proven the non-parametric tests, Mann Whitney U test and the Kruskal Wallis H test were applied to test for variances.

#### 5.5.1 Gender

As normality was not established in relation to either levels of stress or frequency of stress and gender, a Mann Whitney U Test was carried out. The results indicated that statistically there was no difference between gender and perceived level of stress. (u = 474, z = -1.57, p = .115) Also, statistically there was no difference between the frequency of stress and gender. (u = 474, z = -1.69, p = .90) It is important to note the limitations involved as the sample consisted of just 21 males with 59 females therefore should be treated with caution.

In terms of the sources of stress again a Mann Whitney U test was endorsed to establish whether there was any statistical significance between work- related stress, professional investment, discipline and motivation, time management and gender was carried out. The results in diagram 3 indicate that there was a statistical difference between work - related stress and gender (u = 437.5, z = -1.996, p = .046). Females looked to be more stressed than males with a mean rank of 43.58 as oppose to males mean rank of 31.83. Although statistically there was no significant deviation on any of the other categories of stressors, males seemed less stressed in all categories with the exception of discipline and motivation. Males scored a mean rank of 44.76 with females scoring 38.98. Having established normality between gender and professional distress an Independent Sample T - Test was carried out but also showed no statistical difference between males and females (t = .254, p = .80).

	Hypothesis Test Summary							
	Null Hypothesis	Test	Sig.	Decision				
1	The distribution of Time Management Scale is the same across categories of Gender.	Independent- Samples Mann- Whitney U Test	.645	Retain the null hypothesis.				
2	The distribution of Work Related Stress Scale is the same across categories of Gender.	Independent- Samples Mann- Whitney U Test	.046	Reject the null hypothesis.				
3	The distribution of Discipline an Motivation Scale is the same across categories of Gender.	Independent- & amples Mann- Whitney U Test	.326	Retain the null hypothesis.				
4	The distribution of Professional Investment Scale is the same across categories of Gender.	Independent- Samples Mann- Whitney U Test	.083	Retain the null hypothesis.				

Asymptotic significances are displayed. The significance level is .05.

#### Table 10: Mann Whitney U Test on Gender and Sources of Stress

Independent Samples Test					
		Levene's Test for Equality of Variances			
		Т	Sig. (2-tailed)		
Professional Distress Scale	Equal variances assumed	0.254	0.80		

**Table 11: Independent Sample T Test on Gender and Professional Distress** 

The final test carried out was on the relationship between gender and the six coping methods investigated. In this instance the Mann Whitney U test showed that there was a statistically significant difference between gender and the coping method of seeking advice and support from colleagues and friends (P = .000). Within this females scored significantly higher (Mean Rank = 46.95) thus indicating that they utilise this option more than males (Mean Rank = 22.38). In addition, there was a significant difference between gender and seeking professional help (P = .015). Females again scored higher

(Mean Rank = 42.99) than males (Mean Rank = 33.50). The findings of significant differences are shown in table 10.

	Hypothesis Test Summary						
	Null Hypothesis Test Sig. Decisio						
1	The distribution of Relaxation is th same across categories of Gender.	Independent- Samples Mann- Whitney U Test	.874	Retain the null hypothesis.			
2	The distribution of Exercise is the same across categories of Gender.	Independent- Samples Mann- Whitney U Test	.244	Retain the null hypothesis.			
3	The distribution of Hobbies is the same across categories of Gender.	Independent- Samples Mann- Whitney U Test	.279	Retain the null hypothesis.			
4	The distribution of Advice and Support is the same across categories of Gender.	Independent- Samples Mann- Whitney U Test	.000	Reject the null hypothesis.			
5	The distribution of Professional He is the same across categories of Gender.	Independent- Ißamples Mann- Whitney U Test	.015	Reject the null hypothesis.			
6	The distribution of Action Plannin; is the same across categories of Gender.	Independent- gSamples Mann- Whitney U Test	.262	Retain the null hypothesis.			

Asymptotic significances are displayed. The significance level is .05.

#### Table 12: Mann Whitney U Test on Gender and Coping Method

#### 5.5.2 Location

In relation to the rural and urban divide the Mann Whitney U test showed that there was a significant difference between the frequency of stress in rural and urban teachers (u = 573, z = -2.34, p= .02) The results can be seen in table 11 below. The mean rankings indicated that those in urban schools (Mean Rank = 46.18) experienced stress far more frequently than those in rural schools (34.83). As there were even numbers of teachers in urban and rural schools this would appear to be significantly strong evidence.

Test Statistics <sup>a</sup>				
	In a typical week, how frequently			
	do you feel stressed?			
Mann-Whitney U	573.000			
Wilcoxon W	1393.000			
Z	-2.335			
Asymp. Sig. (2-tailed)	.020			

a. Grouping Variable: Rural or Urban School

#### Table 13: Mann Whitney U Test on Location and Frequency of Stress

There were no significant differences between location and the perceived levels of stress (u = 747, z = -0.510, p = .610) Nevertheless, again the mean rank was higher among urban school teachers (44.16) in comparison to rural school teachers (36.84).

An investigation of rural and urban schools and their relationship to the sources of stress showed that there were significant variations between location and time management (u = 545, z = -2.464, p = .014) and work - related stressors (u = 541, z = -2.500, p = .012) Urban school teachers appeared to be somewhat more stressed in relation to time management (MR = 46.88) to that of teachers in rural schools (MR = 34.13) as well as in terms of work – related stressors (MR = 46.98 & MR = 34.03).

	Hypothesis Test Summary						
	Null Hypothesis	Test	Sig.	Decision			
1	The distribution of Time Management Scale is the same across categories of Rural or Urbar School.	Independent- Samples Mann- Whitney U Test	.014	Reject the null hypothesis.			
2	The distribution of Work Related Stress Scale is the same across categories of Rural or Urban School.	Independent- Samples Mann- Whitney U Test	.012	Reject the null hypothesis.			
3	The distribution of Discipline and Motivation Scale is the same across categories of Rural or Urbar School.	Independent- Samples Mann- Whitney U Test	.533	Retain the null hypothesis.			
4	The distribution of Professional Investment Scale is the same across categories of Rural or Urbar School.	Independent- Samples Mann- Whitney U Test	.881	Retain the null hypothesis.			

Asymptotic significances are displayed. The significance level is .05.

#### Table 14: Mann Whitney U Test on Location and Sources of Stress

Again an Independent Sample T - Test was carried out between location and professional distress with no significant deviation (t = .147, p = .884)

Independent Samples Test					
		Levene's Test for Equality of Variances			
		Т	Sig. (2-tailed)		
Professional Distress	Equal variances				
Scale	assumed	0.147		0.884	

**Table 15: Independent Sample T Test on Location and Professional Distress** 

#### 5.5.3 Age

There were no statistical differences found between the age groups, perceived levels of stress (x (2) = .430, p =.806) and frequency in which stress was experienced (x (2) = 1.143, p = .565). The author then turned to focus on whether there was any digression in relation to age group and each category of stress. A Kruskal – Wallis H Test was carried out. Table 14 shows the results which indicate that again there were no statistical differences between any of the stress groups and age. A One Way Anova, as seen in table 15, on age and professional distress (F = .364, P = .696) and work related stress (F = .160, P = .852) also showed no significant difference.

_	in position of contraining a					
	Null Hypothesis	Test	Sig.	Decision		
1	The distribution of Time Management Scale is the same across categories of Age Group	Independent- Samples Kruskal- Wallis Test	.302	Retain the null hypothesis.		
2	The distribution of Discipline a Motivation Scale is the same across categories of Age Group		.614	Retain the null hypothesis.		
з	The distribution of Professional Investment Scale is the same across categories of Age Group	Samples	.718	Retain the null hypothesis.		

Asymptotic significances are displayed. The significance level is .05.

#### Table 16: Kruskal Wallis H Test on Age and Sources of Stress

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Work Related Stress	Between Groups	.162	2	.081	.160	.852
Scale	Within Groups	39.008	77	.507		
	Total	39.170	79			
Professional Distress	Between Groups	.424	2	.212	.364	.696
Scale	Within Groups	44.844	77	.582		
	Total	45.268	79			

Table 17: One Way Anova Test on Age and Sources of Stress

## **5.5.4 Level of Experience**

Similar to age, there were no statistical differences between years of teaching experience, perceived levels of stress (x (3) = 2.42, p = .489) and frequency of stress in a typical week (x (3) = 4.879, p = .181). However, on examining those with varying years of experience and each categorical source of stress it was discovered via the Kruskal Wallis H test that there was a statistical difference in terms of professional investment (x (3) = 8.042, P = .045) This can be seen in diagram below.

Hypothesis	Test	Summary
------------	------	---------

			-	
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Time Management Scale is the same across categories of Years Teaching.	Independent- Samples Kruskal- Wallis Test	.167	Retain the null hypothesis.
2	The distribution of Discipline ar Motivation Scale is the same across categories of Years Teaching.	hthdependent- Samples Kruskal- Wallis Test	.316	Retain the null hypothesis.
3	The distribution of Professional Investment Scale is the same across categories of Years Teaching.	Independent- Samples Kruskal- Wallis Test	.045	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

#### Table 18: Kruskal Wallis H Test on Levels of Experience and Sources of Stress

In order to establish which groups the differences existed, a Mann Whitney U test was carried out and established that there was a significant difference between those with 0 to 5 years teaching and those with 11 to 15 years teaching experience (u = 69.000, z = -1.993, p = .046). The results of which can be seen in table 17 indicated that those with 11 to 15 years teaching experience had a higher mean rank. This signified that they experienced a greater level of stress in relation to professional investment than those with 0 to 5 years teaching experience. Nevertheless, the test shows that the conditions for statistical significance are only just satisfied.

	Professional Investment Scale	
Mann-Whitney U	69.000	
Wilcoxon W	222.000	
Z	-1.993	
Asymp. Sig. (2-tailed)	.046	
Exact Sig. [2*(1-tailed Sig.)]	.048 <sup>b</sup>	

a. Grouping Variable: Years Teaching

Table 19: Mann Whitney U Test on 0 to 5 years and 11 to 15 years teachingexperience

Years Teaching	N	Mean Rank	Sum of Ranks
0 to 5 years	17	13.06	222.00
11 to 15 years	14	19.57	274.00
Total	31		

## Table 20: Mean Rank Between teachers with 0 to 5 years and 11 to 15 yearsteaching experience.

Furthermore, a significant difference also existed between those with 6 to 10 years teaching experience and those with 11 to 15 years teaching experience (u = 93.000, z = -2.779, p = .005). As can be seen in table 19 and 20 below and similar to the results above,

those with 11 to 15 years' experience scored a higher mean rank suggesting that they are more stressed in relation to professional investment than those with 6 to 10 years' experience. Importantly, the significance level in the latter instance is greater than the results of those with 0 to 5 years teaching experience. It can be concluded therefore that as teachers gain experience they become more stressed in relation to professional investment. It is again important to highlight that the sample within the 11 to 15 years category comprised of 14 participants. This is half the number of participants in the 6 to 10 years category.

	Professional Investment Scale
Mann-Whitney U	93.000
Wilcoxon W	499.000
Z	-2.779
Asymp. Sig. (2-tailed)	.005
Exact Sig. [2*(1-tailed Sig.)]	.005 <sup>b</sup>

a. Grouping Variable: Years Teaching

# Table 21: Mann Whitney U Test on 6 to 10 years and 11 to 15 years teachingexperience

Ranks								
	Years Teaching	N	Mean Rank	Sum of Ranks				
Professional Investment	6 to 10 years	28	17.82	499.00				
Scale	11 to 15 years	14	28.86	404.00				
	Total	42						

Table 22: Mean Rank Between teachers with 6 to 10 years and 11 to 15 years
teaching experience

Finally, a One Way Anova Test on years of experience and professional distress (F = 2.196, P = .095) and work related stress (F = .184, P = .907) showed no significant difference.

		Sum of Squares	Df	Mean Square	F	Sig.
Work Related	Between Groups	3.124	3	1.041	2.196	.095
Stress Scale	Within Groups	36.046	76	.474	1	
	Total	39.170	79			
Professional	Between Groups	.326	3	.109	.184	.907
Distress Scale	Within Groups	44.941	76	.591		
	Total	45.268	79			

Table 23: One Way Anova Test on Levels of Experience and Sources of Stress

#### 5.6 Summary of Findings

Work related stress is experienced by the teachers who completed this questionnaire, with only 1% of the sample which was equivalent to 1 teacher, stating that they never felt stressed. In terms of frequency in a typical week, 3 indicated that they always felt stressed, 15 stated they felt stressed most of the time and 34 were stressed about half of the time. In relation to the sources of stress, time management scored the highest mean value of 4 and also appeared to be the main stressors for those in the "very stressed" category. The manifestations which tested as having the highest mean were the emotional manifestations. Overall, action planning was the coping mechanism with the highest mean rank but there was little difference between the remaining coping methods with the exception of professional help. This process had a mean of 1.34. An examination of whether certain coping strategies led to a decline in the existence of stress failed to show any high or even moderate significant correlation. However, there were some weak negative significant relationships between work-related stress and exercise and hobbies. This may be worth investigating in further detail with a larger sample in future research.

The female participants were shown to be significantly more stressed than males in relation to the category of work-related stressors. In terms of the coping methods, there

was a significant difference between female and male participants in terms of the use of advice and support from colleagues along with professional help. In both instances females utilised these methods more often than males. Those in urban schools experienced stress more frequently than those in rural schools. Additionally, there was a statistical difference between those in urban and rural schools and work-related and time management stressors with teachers in urban schools experiencing more stress than teachers in rural schools. There was a significant difference between years of teaching experience, 11 to 15 years, were more stressed in relation to professional investment than those with 0 to 5 and between 6 and 10 years' experience. The next chapter will discuss and evaluate these results in detail and compare it to the previous literature.

## **Chapter 6: Discussion**

#### 6.1 Introduction

The aim of this study was to explore the existence of work related stress in secondary school teachers in Ireland. The responses indicated that stress is very much a problem among the participants of this study with 99%, or 79 of the 80 participants, feeling stressed at some level. Five objectives were outlined which included an examination of the levels and frequency of stress, the sources of stress, manifestations of stress, coping methods utilised and the relationship between the coping methods and the perceived stress. The final objective was to examine whether there were any significant differences in relation to gender, age, levels of experience and location of the school. This chapter will delineate and discuss the findings of the research whilst comparing to previous Irish and international studies. There were a number of similarities but there were also strong contrasts between this study and those previously carried out.

#### 6.2 Levels and Frequency of Stress in Secondary School Teachers

As stated previously the issue of work related stress has been something of a growing phenomenon over the past four decades. This research discovered that the mean teacher stress inventory score was 3.16 indicating that on average the participants felt more than moderately stressed. This calculates a stressed score by considering both the stressors and the manifestations. The study also established, when directly asked, that 21% of the participants found teaching very stressful and 39% found it quite stressful. The timing of this study, which was completed by many in the months of April, May and June, could have impacted on the participants perceived stress levels. These months are well known as busy periods in the teaching calendar as they prepare their classes for exams. Furthermore, it is worth noting that 93% of the participants had exam classes. Although it was anticipated that a significant portion would experience stress when compared with previous UK studies this figure seems high. In the UK it has been reported that approximately one third of post primary school teachers found their job stressful or

extremely stressful (Kyriacou, 1987; Gold and Roth, 1993). It is worth noting that such studies involved a larger sample size than the present one which may incur limitations. When compared with other international studies there are similarities with previous research in Taiwan for example where 26% of teachers were either very or extremely stressed (Kyriacou or Chien 2004). Although this is a more recent study than those highlighted in the UK, it is based on primary school teachers therefore also carries with it some limitations.

There is limited Irish and international research available in relation to frequency of stress experienced in secondary school teachers. A Millward Brown poll did find in 2014 that 60% of Irish secondary school teachers felt continuously stressed. (Humphreys, 2014) The author in the present study examined frequency levels on a typical week and found that 4% of those surveyed "always" felt stressed which would indicate that the sample in this present study experience stress less frequently than those in the Millward Brown poll. However, it is difficult to make comparisons given that different research tools were used in each study. It is also important to highlight that in the present study a further 19% felt stressed "most of the time" and 43% felt stressed "about half of the time" which signifies a grave crisis for the teaching profession.

#### 6.3 Sources of Work Related Stress in Secondary School Teachers

The Teacher Stress Inventory groups job stressors into five categories which included; time management, work-related stressors, professional distress, discipline and motivation and personal investment. In addition, an open ended question was included to allow participants to specify any other major sources of stress which were not already included in the survey. Time management received the highest mean score of 4. Work related stress received an overall mean of 3.94 therefore there was no huge difference between the two. Professional distress had a mean of 3.71, discipline and motivation was 3.46 and professional investment scored the least with 2.98. The standard deviation was quite high among the categories of professional distress and professional investment so conclusions based on this can be difficult to interpret. In order to gain a more strengthened picture the

author examined the mean scores and standard deviations of each stressor within the group that claimed they were "very stressed". The mean score for time management was 4.08, work – related stress was 4.05, professional distress was 3.75, discipline and motivation was 3.53 and professional investment again the lowest with 2.94. Therefore, it would suggest that the average sample of those experiencing the highest levels of stress found time management and work related stress to be the major causes of stress. In order to establish a clearer picture of the predominant sources of stress the author believed it was vital to scrutinise the statements within each category. Nevertheless, the above supports the previous literature and the contention that these categories are well-known sources of stress for many teachers (Wynne, Clarkin and Dolphin, 1991; Kerr, Breen, Delaney, Kelly and Miller, 2011; Forlin, 2001; Chan, Chen, and Chong, 2010; Antoniou, Polychroni and Vlachakis, 2006; Hargreaves and Goodson, 1996).

The time management section categorises the causes of stress into rushing work, not having enough time to relax, over committing and doing multiple things at once. Within time management 96% of those surveyed either agreed or strongly agreed with the statement "I try doing more than one thing at a time". This could be as a result of excessive workload potentially exemplified as a source of stress given the workload involved in preparation of exam classes. Within the work – related stress section the sources of stress include; excessive caseload, administration work and lack of preparation time. 85% either agreed or strongly agreed that "there is too much work to do" which could be coincided with the large numbers stating that they try to so more than one thing at a time. This can be compared to the findings of previous research by Austin, Shah and Muncer, who also used the same research tool as used in the present case (Austin Shah and Muncer, 2005). They found that the most common work stressor among teachers was work overload. Although in the present study it is not the most common stressor it does still emerge as a huge source of stress for many of the participants. The current findings also support that of previous Irish research which has identified high volumes of work during term time as one of the major stressors in teaching (Kerr, Breen, Delaney, Kelly and Miller, 2011, Wynne, Clarkin and Dolphin, 1991). One participant in the present study commented, "extra-curricular events on top of school workload are what add to the

stress". This gives an insight into potential aspects of the workload which may be causing the stress.

Professional distress refers to the participant's lack of promotional opportunity, acknowledgement, status and salary. The results showed that 83% agreed or strongly agreed that "there is a lack of recognition for the extra work and/or good teaching that they do". This supports the Irish research carried out by Wynne, Clarkin and Dolphin, which revealed that feeling undervalued was a major source of stress and featured among the top five causes of stress for primary, secondary and post-secondary teachers (Wynne, Clarkin and Dolphin, 1991). Thus, for many teachers the additional work load in itself is a source of stress but adding to this is the lack of recognition for such work. When asked if they felt they received an inadequate salary for their work 58% answered agreed and strongly agreed which would indicate that for many such recognition is not solely if at all in the form of monetary acknowledgment. This can be contrasted with Wynne, Clarkin and Dolphin who found inadequate salary was another one featuring in the top five stressors in secondary school teachers (Wynne, Clarkin and Dolphin, 1991). It does require further investigation as to what form of acknowledgment is sought. Among the additional comments a number of participants stated that management issues was an additional source of stress, poor management skills, not knowing how to work as team players or have good communication between their staff, being disrespected by management and monitored like the students. Management acknowledgement could therefore offer one potential explanation for such a high percentile citing this lack of recognition as a source of stress.

Discipline and motivation of pupils included; classroom discipline problems, pupil motivation and rejection of authority. The results established that 83% felt frustrated "because some students would be better if they tried" and 81% felt frustrated from "attempting to teach students who are poorly motivated". This category of stressors, also referred to as the student domain, has shown to be a source of stress previously and the present study supports that of Wynn, Clarkin and Dolphin. In this study the main stressors established from a teacher specific questionnaire included; poorly motivated

students, and pupils who show a lack of interest (Wynne, Clarkin and Dolphin, 1991). A lack of parental involvement at home could potentially explain why students may not be motivated to do well or try to do better. One participant commented that an additional source of stress was "Lack of parental interest in education (ie encouragement to do homework)". Interestingly, 38% of teachers agreed or strongly agreed that they felt frustrated "due to discipline problems in the classroom" which is significantly lower than expected and was the lowest scoring statement within this category. This is in contrast to previous Irish and international findings (Kerr, Breen, Delaney, Kelly and Miller, 2011, Antoniou, Polychroni and Vlachakis, 2006).

Professional investment includes within its category, opportunity for professional improvement, to have their opinion aired, control over decisions and stimulation in their role as a teacher. This was the category of stressors which scored the lowest mean however is clearly still an issue for many. The statement which received the highest percentile, 55%, of those who answered agree and strongly agree was in relation to "a lack of control over decisions made on school matters". This again could possibly highlight animosity between teaching staff and management.

As mentioned previously, within the open ended question on other sources of stress management issues appeared to be the most consistent theme. This included lack of communication and support from management, pressure from management and being disrespected by management. In addition, another number of stressors were highlighted. Three participants cited issues with parents and their lack of support and involvement in the student's education as sources of stress. This has previously been mentioned as a source of stress among Irish primary and secondary school teachers. (Darmody and Smith, 2011; Kerr, Breen, Delaney, Kelly and Miller, 2011) The working environment or conditions was mentioned by just one participant who stated "the lack of adequate work facilities ie sharing one staff computer between 40 and not having own classrooms or work space to store teaching materials". Finally, just two participants indicated that issues such as educational reforms or government initiatives were a source of stress. One participant declared that "wasting time with Croke Park hours and listening to stupid

talks instead of being given time to do our own work". While another teacher specified that "changes to work practices without consultation-new Junior Cert and school timetables, supervision and substitution duties- compulsory now for no pay, Individualised Education Plan and Junior Certificate School Programme paperwork that is simply box ticking exercises, staff meetings and Croke park hours-box ticking exercises". This category of stressors, often referred to as external domain stress, has been previously cited as a problem in secondary school teachers (Kyriacou and Chien, 2004). It was expected that it might appear as more of an issue considering much of the media coverage of teachers. However, the disadvantage associated with open text questions should not be ignored and perhaps in a qualitative research method may appear as a more solemn issue.

#### 6.4 Manifestations of Stress:

This study found that the most prominent manifestations of stress were emotional manifestations. Fatigue and cardiovascular manifestations were also highlighted as a problem. All three categories had a mean value of 3 and were therefore of moderate strength to the participants. The standard deviation of emotional and fatigue manifestations was low therefore providing more concrete confirmation that this is a problem for the many of the participants. A closer examination of each statement in the survey was carried out in order to discover what percentile found such manifestation to be of great or major strength. Within the category of fatigue manifestations, 72% agreed or strongly agreed that "I respond to stress by physical exhaustion". Within emotional manifestations 70% agreed or strongly agreed that they "respond to stress by feeling anxious". It would be of great importance to further investigate whether there are any external factors or lifestyle factors which would increase the existence of these manifestations. The results can be compared to previous research carried out by the Irish Congress of Trade Unions in relation to health and safety in the workplace. This survey found that 27% of workers suffered from stress, anxiety or depression (Irish Congress of Trade Unions, 2014). Moreover, the previous Irish research carried out by Wynne, Clarkin and Dolphin also found quite high levels of cognitive anxiety (Wynne, Clarkin
and Dolphin, 1991). The percentile of the participants suffering from anxiety here is significantly higher than expected. In addition, those that respond to stress with cardiovascular manifestations was between 36% and 58%. Those that had feelings of high blood pressure were 49%. Much of this is self-diagnosis so should be treated with caution. It is also worth noting that the author is just looking at those participants that were very to extremely affected by this and is not including those that replied with moderate strength which would intensify the problem further. The only manifestations which the sample answered as relatively low were within the behavioural category. These consisted of responding to stress by calling in sick, use of over the counter and prescriptive drugs.

## 6.5 Coping with Stress

This study found that overall action planning was the most frequently used coping strategy. 25% always adopted this approach and 45% used it quite often. This broadly supports previous Irish research which uncovered task orientation as the most commonly used stressor, adopted by 40% of participants. When considered alongside earlier research by Cockburn in the area this would appear as positive evidence (Cockburn, 1996). In her study carried out in the UK she found that the use of action planning methods such as setting priorities were the most effective approaches (Cockburn, 1996). Exercise was the second most utilised option with 20% always using this approach and 33% using it quite often. This is further positive evidence given the vast research which has found that this is an effective method for minimising the existence of stress.

In order to assess whether or not there was any link between the possible reductions of certain stressors with the use of certain coping methods a Spearman Rho test was carried out. There were no strong correlations found to support the findings of Cockburn nor were there any strong significant correlations between any of the coping methods and the individual stressors themselves. This result of unknown effectiveness is disappointing. Possible reasons for this could include the small sample size or the randomised frequency usage of the coping strategies. It is worth highlighting that there were weak negative

correlations between the work – related stress categories and exercise (r = -.27, p = <0.05) and hobbies (r = -.24, p = <.05). Furthermore, exercise and hobbies also had a weak negative correlation with professional distress. So too did relaxation (r = -.28, p = <.05). This move in the right direction may suggest potential to examine this in more detail with a larger sample size in order to establish a possible connection between the effective decrease of these two sources of stress and the increased use of exercise, hobbies and relaxation.

The least used method was professional help with 83% never pursuing this as a solution to the problem. There are a number of explanations as to why professional help may not be considered a feasible option. Historically Irish society and culture has not endorsed the practice of seeking professional help for both work related and personal problems. For many this may be seen as a sign of weakness and there is a stigma attached also. While the tide is turning in relation to this popular opinion there is still a way to go. It may be the case that although 99% of those surveyed are experiencing stress perhaps they feel that the stress is not serious enough to warrant such an approach. With the increase in stress among Irish teachers came the introduction of a specialised and free employee assistance programme which offers confidential counselling services. Thus, the issue of affording such facilities has been eradicated as a reason for low usage. However, the reason for such a low percentile of usage of such practice is something that requires further investigation particularly as such a significant percentage of participants admitted to experiencing stress.

The open text question to allow teachers to highlight additional coping techniques did not provide a major contribution. One teacher surveyed said "getting to work earlier to get on top of the work load" was an additional coping strategy they used. Another participant did mention that "there is absolutely nowhere to turn in the education system to lodge complaints-the union don't care and do nothing except speak within the "rules" and so staff have no support from within or outside". This along with the fact that seventy one of the teachers in the sample stated they did not feel they received adequate support from the education system would indicate that this is an area of serious contention. The final objective of the author was to examine whether there were any differences between gender, age, levels of experience and location and perceived stress levels, frequency and sources of stress. In addition, the gender variable was explored in conjunction with coping methods also in order to establish whether there were any significant differences in the approach taken by males and females in coping with stress.

### 6.6 Gender

There were no statistical differences in terms of gender and frequency and perceived level of stress. Statistically there was a significant difference shown between gender and the work – related stress category with females showing that they were more stressed than males. This is consistent with the findings of Antoniou, Polychroni and Vlachakis where it was established that female contributors were more stressed than males in relation to workload and classroom factors. Klassen's Canadian study also showed that female teachers experienced more workload stress than males (Klassen, 2010). In Ireland females have also reported greater levels of stress specifically related to workload stress in terms of time pressure (Wynne, Clarkin and Dolphin, 1991). In interpreting such a result it has been traditionally argued that this is because of gender specific circumstances such as family and personal life. It warrants further investigation within an Irish context including an enquiry on family status such as number of children.

There were significant differences between gender and the coping mechanisms of advice and support and seeking professional help. Females utilised this method more than males. This in turn supports the research of Chan and Hui (Chan and Hui, 1995). An obvious explanation for this outcome would be that females have traditionally shown more expertise in expressing emotions than their male counterparts. However, a more in depth analysis such as a qualitative analysis could offer further insight into reasons for a lack of usage of such techniques by males.

### 6.7 Geographical Location

An examination of geographical location was categorised into rural and urban schools. There was an equal amount of participants in each group; forty in both. In relation to perceived levels of stress there was no statistical difference between rural and urban school teachers. This is in contrast to previous international literature which found urban school teachers significantly more stressed to rural teachers (Abel and Sewell, 1999). One potential argument would be that the urban and rural divide in the US is further apart than that of Ireland. The findings of this present study supports the research results of the Teaching Council of Ireland although this study focussed on primary school teachers (Darmody and Smith, 2011). Nevertheless, it is worth noting that urban teachers scored a substantially higher mean rank than rural teachers therefore despite there being no statistical evidence there is potential for further examination particularly when considered alongside the results below in relation to the each category of stress. In addition, the findings highlighted a statistical significant relationship between frequency of stress and location. Those in urban schools experiencing stress more frequently than those in rural schools. One potential explanation for this could include the availability of jobs in rural schools and therefore the additional pressure involved if teachers have to travel longer distances for a job in an urban area.

In terms of the stressors themselves there were statistical significant differences between location and time management (u = 545, z = -2.464, p = .014) as well as work related stressors (u = 541, z = -2.500, p = .012). Urban teachers proved more stressed in relation to both categories of stressors. There were no statistical differences in relation to the other categories including professional distress therefore the findings of the present study do not support that of Abel and Sewell. Their previous research found that urban teachers were more stressed as a result of poor working conditions and poor staff relations. Working conditions in their study included: inadequate salary, lack of recognition and poor promotion prospects which in the present study would fall under the professional distress category of stressors. They also found that rural teachers were more stressed than urban teachers as a result of time pressure which again was not supported by the present

study. It is difficult to speculate on why urban teachers were more stressed in relation to time management and work-related stress than rural teachers. Perhaps one potential explanation may be the greater possibility of larger class sizes in urban schools with a wider base in terms of more ethnically diverse students requiring more time due to poor English skills. This in turn could limit time and increase workload. This is speculation and further qualitative analysis is required to offer an important insight into this.

### **<u>6.8 Age and Levels of Experience</u>**

In relation to frequency, and the perceived levels of stress there were no significant differences based on the variables of age and the number of years of teaching experience which the participants had. Furthermore, there were no statistically significant differences between age and any of the sources of stress. Therefore this study failed to support the findings of previous Irish research (Wynne, Clark and Dolphin, 1991). This study found that older teaching professionals reported less stress in relation to career development. It is important to highlight that this evidence was weak.

It was found that there was a statistical difference between years of teaching experience and professional investment stress. (x (3) = 8.042, P = .045). The significant differences were that those in the 11 to 15 years teaching category experienced more stress than both 0 to 5 years and those with 6 to 10 years' experience. Given that there was a significant relationship uncovered and as age and years of experience are often very closely linked there could be cause for examining this further.

## **Chapter 7: Conclusion**

## 7.1 Conclusion

The purpose of this study was to explore the existence of job stress in secondary school teachers in Ireland, the main sources of such stress and the methods used to cope with the issue. As stated earlier there is a wide selection of literature available on the topic of work related stress and coping with the existence of stress. Equally there is a vast amount of research carried out on the consequences of occupational stress. The consequences vary for many and include; various serious physical and mental health implications, increased turnover, performance issues, reduction in productivity, reduced employee motivation and expensive legal implications. These repercussions highlight the value in investigating the issue further and attempting to eradicate or at least reduce the existence of stress in the workplace. In order to effectively examine the problem of job stress it is necessary to look at occupations separately. One such profession which has emerged in the literature as possessing high levels of stress is the teaching profession. This particular study is unique in that there is currently a lack of modern research available on the topic in Ireland. Whilst much of the study is based on previous international and Irish research it is also exploratory in nature.

## 7.2 Summary of the main Findings

Overall the participants in the study appear to be stressed at some level with just one participant indicated that they were never stressed. This is a remarkable response, however in order to draw any conclusions further investigation was necessary. Many of us may feel stressed in our job but does this mean that it is a real problem? An examination of how stressed and the frequency of the stress in a typical week should give us a deeper understanding of the problem. Furthermore, the research method of the Teacher Stress Inventory considers teacher specific stressors in conjunction with stress manifestations in establishing the severity of the stress for the participant.

### 7.2.1 Levels and Frequency of Stress

The TSI average score was 3.16 highlighting that on average participants experience of stress was moderately to very noticeable. In addition, when asked if they find teaching stressful a large percentage, 60%, of the participants found teaching either very or quite stressful. The above results therefore support much of the previous literature which indicates that stress is a serious problem for the teaching profession. As there is not a vast amount of research carried out on how frequently stress is experienced the author sought to explore this in the present study. It was found that in a typical week 66% of teachers experience stress at least half of the time. When considered alongside the levels of stress and the results of the TSI this further supports the contention that teaching is a stressful profession.

### 7.2.2 Sources of Job Stress in Secondary School Teachers

The sources of stress investigated were unique to the teaching profession. On average all categories caused stress at some level to the participants. Professional investment seeming to be the least problematic and was between barely and moderately noticeable but was closer to moderately noticeable. Time management and work-related stress were the main stressors overall and also within the category that said they were "very stressed". Overall the statement to receive the highest percentage of very and extremely noticeable responses was "I try doing more than one thing at a time". The second highest scoring statement was "there is too much work to do". Therefore, workload and the allocated time are inadequate and a major source of stress for this sample of secondary school teachers. An additional open text question was asked on whether there were any other sources of stress not already contained in the survey. A few themes emerged but of the 26 teachers that answered this question the overwhelming majority cited management and conflict with other colleagues as a source of stress. This included; poor management skills, bullying, unprofessional behaviour, disrespect, lack of communication, lack of support, staff not pulling their weight and sharing resources.

### 7.2.3 Manifestations of Stress

This research found that the manifestations which appeared the most among the average participant were emotional manifestations. There was not a huge difference however, between fatigue and cardiovascular who received a similar mean value indicating that they were moderately noticeable. Physical exhaustion and anxiety were the statements that received the highest percentile of agree and strongly agreed. Of the five categories of manifestations behavioural manifestations were the only group that did not appear to be of huge concern.

## 7.2.4 Coping with Stress

The coping method most used overall was action planning. Exercise was the second most utilised coping method. Within the category of participants that indicated they were "very stressed", action planning was again the most adopted approach in dealing with the problem of stress. The least used method was seeking professional help but an additional question asked in relation to the use of a stress reduction course highlighted that just 12% of participants had engaged in this practice. In analysing how effective the various coping methods were at minimising the existence of stress there were unfortunately no strong statistical correlations. However, there was some evidence to suggest the possible reduction in professional distress and work – related stressors with the increased use of exercise and hobbies. This should be further explored with a larger sample. An open ended question on additional coping methods was also included in this section of the survey. Just 19 participants answered this but the majority re iterated the importance of talking to family, friends and others in the same profession. Some of the participants stated that leaving their work life at work and not allowing it to impact on family and personal life was important.

## 7.2.5 Differences Based on Gender, Location, Age and Experience

## <u>Gender</u>

This study showed that there were significant differences between males and females and the work – related stress category. This category looked at workload and volume of administration work. It showed that females were more stressed than males. This is consistent with previous Irish research. There were also significant differences between gender and the coping methods of seeking advice and support as well as professional help. International research has proved inconsistent in terms of gender differences and the experience of stress. Further investigation is necessary in the form of qualitative and larger quantitative research focusing on this and the reasons for such differences.

### **Location**

There is a lack of advanced research on location of the school and how this may affect a teacher's stress level. This has been given some attention internationally but little or none in Ireland. Therefore, this section was largely exploratory and examined rural and urban schools. It did highlight some interesting results; those in urban schools experience stress more frequently than those teaching in rural schools. Furthermore, urban school teachers experienced higher levels of time – management and work- related stress than rural teachers. Again, further qualitative analysis is required to investigate this. Among the possible reasons for such results are time to travel to work and larger and more diverse classes.

## Age and Levels of Teaching Experience

There were no differences shown in relation to levels, frequency or sources of job stress and the age of the participants. Again there is inconsistency in the research in relation to this. However, previous Irish research showed that there were differences in terms of age and stress associated with career development. As age is often closely related to level of experience it is interesting that there were significant differences found between levels of experience and professional investment stress. This group of stressors were largely concerned with lack of control and opinion on decisions but also included the opportunity for professional improvement. Those with more experience, namely those in the 11 to 15 years teaching group, were more stressed than those in the 0 to 5 years and the 6 to 10 years categories. Therefore, as levels of teaching experience increased so too did the existence of professional investment stress. Further in depth analysis is necessary to establish grounded reasons for this. An obvious explanation is that those with more experience feel that their opinion and authority is currently not respected enough and that it should be considered when important decisions are made in relation to their profession.

## 7.2.6 Limitations

There are a number of limitations which were briefly discussed earlier. These will now be discussed in more detail with additional limitations. It was initially accentuated in the analysis section that reliability was not established in terms of all of the stress manifestations, therefore the overall teacher stress inventory score should be interpreted with caution. Nevertheless, reliability was established in relation to the sources of stress which is a large part of this particular study. Reliability was not established with the coping mechanisms section of the questionnaire as each coping method is unique in itself. Their inclusion in the study was based on previous research as well as an exploratory element of the study. In terms of the selected participants, entirely random sampling was not adopted and the schools were selected via a convenience sampling approach. The author knew one teacher in each school and they were used as the distributor of the surveys. It could be argued that it is not entirely certain whether the participants are a true representative of Irish secondary school teachers. Nevertheless, individual submissions were carried out anonymously thus encouraging all to participate and to be entirely honest. This also reduced the impact of social desirability. It has also been emphasised through this study that the number of participants is small with just eighty and for a more robust study a much larger sample is required. However, this study is important in that it offers a platform for further investigation with a larger sample particularly as there has been so little extensive research carried out in this area in Ireland in the past decade. The time of the year when the survey was distributed, which was April to June, may also impact on the stress levels of the participants. This is exam time for many teachers especially in this sample as seventy four of the participants had exam classes. This specifically could have direct implications on the time management and work load or work- related stressors. While the above limitations must be acknowledged the findings present strong evidence of the existence of job stress in secondary school teachers in Ireland. This has some important implications for future research in the area.

## **Chapter 8: Recommendations**

## 8.1 Recommendations

This chapter details the recommendations from the survey. These are for both future research as well as possible solutions to the problem of work related stress in secondary school teachers. In terms of possible solutions the recommendations will concentrate on both structural and an individual point of view.

The first recommendation, and perhaps the most important, is to investigate the findings of the present study in more detail. This would include gaining information from a larger number of participants in relation to the key points as well as carrying out qualitative analysis in the form of interviews in order to verify reasons for much of the results which are currently quite vague. This examination should include exploring external factors particularly given the differences discovered between genders, location, years of teaching experience and their relationship with various sources of stress. A study carried out on secondary school teachers in Spain highlighted that occupational stress, burnout and job dissatisfaction may be explained according to personal variables (optimism and hardiness), relational variables (peer support) and non-occupational variables (daily hassles and life events) (López, Bolaño, Villardefrancos Pol, 2010). According to Jepson and Forrett the stress experience varies with each individual (Jepson and Forrett, 2006). Further study of stress based on personality traits is therefore recommended.

The sources of stress should be addressed. Time management and work load seem to be top of the list therefore an examination overall of the role of the teacher and what is expected of them is recommended. Along with many of the educational reforms in the past number of years has come an increase in workload which needs to be addressed. The issue of stress directly associated with workload has not emerged as a recent problem yet the tasks are increasing all the time. Providing school management with adequate training on a number of soft skills including supporting teachers, communication skills, dealing with conflict, negotiations skills, and effective leadership would be beneficial. This is evident based on the number of participants who highlighted issues with management thus this reinforces the recommendation. In addition, significant numbers believe that they are not given adequate support from the education system itself. This requires further examination at government level.

In service training days could include workshops on effective time management, this may help to reduce a portion of the stress related to this but alone will not eradicate the problem. Additional training should be provided on motivation skills in order to deal with the issue of unmotivated students. Consideration should also be given to the adequacy of such training and preparation of student teachers in college.

Whilst a starting point is to address the root cause of the problem it is also important to recognise that certain levels of stress are inevitable and can be reduced if effective coping techniques are used. The stigma should be removed from seeking professional help as a source of assistance. The current Employee Assistance Programme offered to teachers should be promoted at in service days and with regular distribution of information and leaflets. In addition, further research is necessary in order to build an effective stress management course that teaching professionals will actively utilise and believe in. A forum to discuss and share information and provide social support may also be beneficial and should be further explored. Finally, a health and well-being programme should be facilitated at a national level to highlight the importance of exercise and diet amongst other things.

The above recommendations are made having considered the practical implications. Considering the numbers in the profession large scale research and amendments to the work load are likely to take a considerable amount of time. Nevertheless, these should be considered sooner rather than later. The additional training suggestions made, including those to be included at in service days and college training, is unlikely to result in vast cost or impossible practical implications. It could be argued that any costs would outweigh the other cost implications which arise from stress as well as the effect on the students themselves.

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Appendices

Tests of Normality					
	Gender Shapiro-Wilk				
		Statistic		df	Sig.
Total Stress Score	Female		0.954	59	0.025
	Male		0.955	21	0.418

## Appendix 1: Test for Normality between TSI Level of Stress and Gender

## **Appendix 2: Test for Normality between Frequency of Stress and Gender**

Tests of Normality					
	Gender	Shapiro-Wilk			
		Statistic		df	Sig.
In a typical week, how frequently do					
you feel stressed?	Female		0.814	59	0
	Male		0.731	21	0

## Appendix 3: Test for Normality between TSI Level of Stress and Location

Tests of Normality					
	Rural or Urban School	Shapiro-Wilk			
		Statistic	df	Sig.	
Total Stress Score	Rural	0.939	40	0.032	
	Urban	0.962	40	0.198	

## **Appendix 4: Test for Normality between Frequency of Stress and Location**

	Tests of Normality			
	Rural or Urban School	Shapiro-Wilk		
		Statistic	df	Sig.
In a typical week, how frequently do you feel				
stressed?	Rural	0.834	40	0
	Urban	0.866	40	0

Tests of Normality					
	Age Group Shapiro-Wilk				
		Statistic	df	Sig.	
Total Stress Score	20 to 30	0.881	26	0.006	
	31 to 40	0.955	35	0.165	
	>40	0.844	19	0.005	

## Appendix 5: Test for Normality between TSI Level of Stress and Age

## Appendix 6: Test for Normality between Frequency of Stress and Age

Tests of Normality						
	Age Group	Shapiro-Wilk				
		Statistic		df	Sig.	
In a typical week, how frequently						
do you feel stressed?	20 to 30	0	).857	26	0.002	
	31 to 40	0	).779	35	0	
	>40	0	).778	19	0.001	

# Appendix 7: Test for Normality between TSI Level of Stress and Years of Teaching Experience

Tests of Normality						
	Years Teaching Shapiro-Wilk					
		Statistic	df	Sig.		
Total Stress Score	0 to 5 years	0.838	17	0.007		
	6 to 10 years	0.918	28	0.031		
	11 to 15 years	0.874	14	0.048		
	more than 15 yeas	0.832	21	0.002		

# Appendix 8: Test for Normality between Frequency of Stress and Years of Teaching Experience

Tests of Normality						
	Years Teaching	Shapiro-Wilk				
		Statistic	df	Sig.		
In a typical week, how frequently do you feel						
stressed?	0 to 5 years	0.901	17	0.071		
	6 to 10 years	0.851	28	0.001		
	11 to 15 years	0.576	14	0		
	more than 15 yeas	0.747	21	0		

Tests of Normality						
	Gender	Shapiro-Wilk				
		Statistic	df	Sig.		
Time Management Scale	Female	0.966	59	0.103		
	Male	0.86	21	0.006		
Work Related Stress Scale	Female	0.957	59	0.037		
	Male	0.97	21	0.724		
Professional Distress Scale	Female	0.975	59	0.255		
	Male	0.954	21	0.405		
Discipline and Motivation Scale	Female	0.916	59	0.001		
	Male	0.935	21	0.177		
Professional Investment Scale	Female	0.973	59	0.222		
	Male	0.905	21	0.044		

Appendix 10: Test for Normality between Sources of Stress and Location

	Rural or Urban School	Shapiro- Wilk		
		Statistic	df	Sig.
Time Management Scale	Rural	0.949	40	0.069
	Urban	0.944	40	0.046
Work Related Stress Scale	Rural	0.971	40	0.375
	Urban	0.915	40	0.006
Professional Distress Scale	Rural	0.958	40	0.148
	Urban	0.968	40	0.308
Discipline and Motivation				
Scale	Rural	0.962	40	0.191
	Urban	0.931	40	0.018
Professional Investment				
Scale	Rural	0.888	40	0.001
	Urban	0.969	40	0.341

Tests of Normality							
	Age Group	Age Group Shapiro-Wilk					
		Statistic	df	Sig.			
Time Management Scale	20 to 30	0.965	26	0.491			
	31 to 40	0.864	35	0			
	>40	0.957	19	0.519			
Work Related Stress Scale	20 to 30	0.936	26	0.111			
	31 to 40	0.945	35	0.077			
	>40	0.955	19	0.471			
Professional Distress Scale	20 to 30	0.976	26	0.786			

	31 to 40	0.944	35	0.073
	>40	0.924	19	0.134
Discipline and Motivation Scale	20 to 30	0.9	26	0.016
	31 to 40	0.974	35	0.555
	>40	0.927	19	0.153
Professional Investment Scale	20 to 30	0.973	26	0.707
	31 to 40	0.927	35	0.023
	>40	0.961	19	0.582

## Appendix 12: Test for Normality between Sources of Stress and Years of Experience

Tests of Normality						
	Years Teaching	Shapiro-Wilk				
		Statistic	df	Sig.		
Time Management Scale	0 to 5 years	0.943	17	0.35		
	6 to 10 years	0.912	28	0.022		
	11 to 15 years	0.853	14	0.024		
	more than 15 yeas	0.955	21	0.423		
Work Related Stress Scale	Less than 5 years	0.904	17	0.079		
	5 to 10 years	0.962	28	0.394		
	10 to 15 years	0.881	14	0.06		
	more than 15 yeas	0.957	21	0.465		
Professional Distress Scale	Less than 5 years	0.957	17	0.579		
	5 to 10 years	0.963	28	0.412		
	10 to 15 years	0.955	14	0.646		
	more than 15 yeas	0.943	21	0.246		
Discipline and Motivation Scale	Less than 5 years	0.864	17	0.018		
	5 to 10 years	0.964	28	0.432		
	10 to 15 years	0.976	14	0.949		
	more than 15 yeas	0.923	21	0.101		
Professional Investment Scale	Less than 5 years	0.963	17	0.696		
	5 to 10 years	0.953	28	0.238		
	10 to 15 years	0.873	14	0.046		
	more than 15 yeas	0.95	21	0.342		

### Appendix 13: Cover Letter and Questionnaire

#### Welcome to My Survey

The aim of the present study is to assess the levels and causes of stress in secondary school teachers in Ireland. Participation is voluntary and involves completing the questionnaire below, which takes approximately 10 minutes. In order to take part in the study, it is necessary that you teach in a Secondary School. All of the data will remain anonymous and confidential. The following are a number teacher concerns. The Irish Health and Safety Authority has defined stress as occurring "when the demands of the job and the working environment on a person exceeds their capacity to meet them". With this definition in mind please identify those factors which cause you stress in your present position. The final section is concerned with the coping strategies utilised to minimise any stress you may feel.

Read each statement carefully and decide if you ever feel this way about your job. Then, indicate how strong the feeling is when you experience it by selecting the appropriate rating on the 5-point scale from strongly disagree, disagree, neutral, agree, strongly agree. If you have not experienced this feeling, or if the item is inappropriate for your position, circle number strongly disagree (no strength; not noticeable). The rating scale is shown below.

#### **HOW STRONG?**

- 1 = Strongly Disagree no strength; not noticeable
- 2 =Disagree mild strength; barely noticeable
- 3 = Neutral medium strength; moderately noticeable
- 4 = Agree great strength; very noticeable
- 5 = Strongly Agree major strength; extremely noticeable

By ticking the statement below, you are agreeing to take part in the study. However, you are free to withdraw from it at any time without giving a reason. If you have any queries, questions or concerns about the study, you are encouraged to contact the researcher at marie.bolton1@gmail.com.

- \* 1. I agree to take part in this study.
- O Yes

- \* 2. Are you male or female?
  - Male
- Female
- \* 3. What age group are you in?
- () 20 to 30
- ) 31 to 40
- () 40+
- \* 4. How many years have you been teaching?
- 0 to 5 years
- 6 to 10 years
- 11 to 15 years
- 15 or more years
- \* 5. Are you teaching in a rural or urban school?
- Rural
- Urban
- \* 6. Do you have an exam class?
- O Yes
- O No
- \* 7. Do you find teaching stressful?
  - Very stressful
  - Quite stressful
  - Stressful from time to time
  - Never stressful

\* 8. In a typical week, how frequently do you feel stressed?

0	Always
0	Most of the time
0	About half of the time
0	From time to time
0	Never

\* 9. Have you ever considered leaving the teaching profession for an alternative career as a result of stress?

O Yes

O No

## Sources of Teacher Stress

## \* 10. Time Management

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I easily over commit myself	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I become impatient if others do things slowly	$\bigcirc$	0	0	0	$\bigcirc$
I try doing more than one thing at a time	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
I have little time to relax/enjoy the time of day	0	0	$\bigcirc$	0	0
I think about unrelated matters during conversations	0	0	$\bigcirc$	$\bigcirc$	0
I feel uncomfortable wasting time	$\bigcirc$	0	0	0	$\bigcirc$
There isn't enough time to get things done	0	$\bigcirc$	$\bigcirc$	0	0
I rush in my speech	0	0	0	0	0

## \* 11. Work Related Stressors

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
There is little time to prepare for my lessons/responsibilities	0	0	$\bigcirc$	0	0
There is too much work to do	0	0	0	0	0
The pace of the school day is too fast	0	0	0	0	0
My caseload/class is too big	0	0	0	$\bigcirc$	0
My personal priorities are being shortchanged due to time demands	0	0	0	0	0
There is too much administration and paperwork	0	0	0	0	0

## \* 12. Professional Distress

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I lack promotion and/or advancement opportunities	0	0	0	0	0
I am not progressing my job as rapidly as I would like	0	0	0	0	0
I need more status and respect in my job	0	0	0	0	0
I receive an inadequate salary for what I do	0	0	0	0	0
I lack recognition for the extra work and/or good teaching that I do	0	0	0	0	0

## \* 13. Discipline and Motivation

### I feel frustrated ....

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
because of discipline problems in my classroom	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
having to monitor pupil behaviour	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
because some students would be better if they tried	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
attempting to teach students who are poorly motivated	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
because of inadequate/poorly defined discipline problems	0	0	$^{\circ}$	$\bigcirc$	0
when my authority is rejected by pupils/administration	0	0	$\bigcirc$	0	$\bigcirc$

## \* 14. Professional Investment

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My personal opinions are not sufficiently aired	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I lack control over decisions made about classroom/school matters	0	0	$\bigcirc$	0	0
I am not emotionally/intellectually stimulated on the job	0	0	$\bigcirc$	0	0
I lack opportunities for professional improvement	0	0	0	0	0

## 15. Have you ever encountered any other sources of stress not mentioned above?

### \* 16. Emotional Manifestations

## I respond to stress....

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
by feeling insecure	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
by feeling vulnerable	0	0	$\bigcirc$	$\bigcirc$	0
by feeling unable to cope	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
by feeling depressed	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
by feeling anxious	0	$\bigcirc$	$\bigcirc$	0	0

## \* 17. Fatigue Manifestations

I respond to stress....

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
by sleeping more than usual	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
by procrastinating	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
by becoming fatigued in a very short time	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
by physical exhaustion	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
by physical weakness	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0

## \* 18. Cardiovascular Manifestations

I respond to stress....

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
with feelings of increased blood pressure	0	0	$\bigcirc$	0	0
with feeling of heart pounding or racing	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
with rapid and/or shallow breath	0	0	$\bigcirc$	0	$\bigcirc$

## \* 19. Gastronomical Manifestations

I respond to stress....

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
with stomach pain of extended duration	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
with stomach cramps	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
with stomach acid	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0

## \* 20. Behavioural Manifestations

I respond to stress....

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
by using prescriptive drugs	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
by using over the counter drugs	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
by using alcohol	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
by calling in sick	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

## Ways of Coping

## \* 21. How often do you utilise the following to cope with any occurrence of stress?

	Never	Rarely	Sometimes	Quite Often	Always
Relaxation	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Exercise	$\bigcirc$	0	0	0	$\bigcirc$
Pursuing other hobbies	$\bigcirc$	0	$\bigcirc$	0	$\bigcirc$
Seeking support or advice from colleagues	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
Getting professional help	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Concentrating on what I had to do, making a plan of action and following it	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0

- \* 22. Have you ever taken part in a stress reduction course?
- O Yes
- O No
- \* 23. Do you feel you are given adequate support from the education system to deal with any stress you may feel?
- Yes
- O No
- 24. Are there any additional coping strategies you would recommend?