DEPARTMENT OF HUMAN RESOURCE MANAGEMENT

The Need Satisfaction and Wellbeing of Scottish Primary Teachers

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Abstract

The wellbeing of employees is essential to ensure their attraction, retention and performance on the job. Wellbeing consists of affect, life satisfaction and meaning in life. There is evidence to suggest that the satisfaction of basic needs (the intrinsic capabilities that humans have) will increase wellbeing, but there is little understanding of how these needs should be satisfied across work and life. In addition, there is no comprehensive framework of needs which individuals seek to fulfil. The aim of this study is to explore which needs are satisfied in work and life to optimise wellbeing.

Scottish primary teachers are considered, due to the engagement but also high stress which teachers can experience. The teaching environment may prevent or enable need satisfaction and this study also seeks to understand what may support or prevent teachers' ability to satisfy needs. A mixed methods approach is used, involving semi-structured interviews with teachers and stakeholders to inform the development of a survey designed to understand the association between need satisfaction and wellbeing. Teachers from across five local authorities in Scotland participated in the survey.

A model of need satisfaction in work and life is proposed and developed to address the research questions and hypotheses of this study. The findings support the model, indicating that when equal energy is directed to work and life and needs in both domains are satisfied, wellbeing is optimised. This study identifies important groups of needs, offering insight into areas of satisfaction in work and life. It also suggests that directing more energy to work may not increase the satisfaction of work needs and may impact on the satisfaction of life needs. It explores the enablers and challenges to need satisfaction, offering insight into how teaching interacts with the life domain.

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Chapter 1
Introduction

1.1 Introduction

Organisations may benefit from ensuring that their employees have psychological health (Erdogan, Bauer, Truxillo and Mansfield, 2012). This thesis is concerned with exploring ways in which this can be optimised in both work and life, by satisfying needs. Despite studies showing that needs are important in each individual domain (e.g. Baard, Deci, and Ryan, 2004; Kasser and Ryan, 1996), there has been no consideration of how they should be satisfied *across* work and life. Teaching is a stressful occupation (Rudow, 1999; Smylie, 1999; Kyriacou, 1989) and teachers may benefit from using strategies which increase their psychological resources. This study therefore focuses on groups of Scottish primary teachers.

Chapter 1 explains why wellbeing is important to individuals, organisations (in relation to enhancing performance), and policy makers and proposes that the satisfaction of work and life needs is an important antecedent to wellbeing. It defines need satisfaction and justifies why this is a useful antecedent to consider. The chapter then highlights the lack of an adequate need satisfaction framework in the literature, as well as a lack of understanding as to how needs should be satisfied across work and life to optimise wellbeing. A justification is made as to why Scottish primary teachers are a salient group to study and an outline of the methods which were used to conduct the study is provided. Finally, an outline of each chapter is presented.

1.2 Importance of Increasing Wellbeing in Work and Life

The positive psychology movement raises the importance of both seeking and striving for conditions which maximise wellbeing in a person's life. This field has aimed to go beyond the traditional objectives of psychology to increase mental health and to focus on building the psychological resources which maximise quality of life (Seligman and Csikszentmihalyi, 2000). The movement reacts against the negative focus on psychological pathology by considering 'how people's lives can be most worth living' (Seligman and Csikszentmihalyi, 2000: 5). It provides a rationale for conducting research which moves away from aspects such as dealing with stress and

coping with difficult events, towards psychological processes and contexts which increase wellbeing (Seligman, 2006). In order to do this, positive emotions require to be accompanied by a feeling that they have been earned and that the individual is deserving of them (Seligman, 2006). This suggests that actions require to be both meaningful and able to induce positive emotions and satisfaction. Wellbeing is defined in this study as building psychological resources to increase affect, life satisfaction and meaning in life.

The wellbeing of employees is essential to the retention and performance of high quality professionals in the job (Van De Voorde, Paauwe and Van Veldhoven 2012; Wright and Bonett, 2007). Jobs which are particularly stressful are likely to have negative effects on performance and absence (Swider and Zimmerman, 2010; Maslach, Schaufeli and Leiter, 2001), and greater incidents of stress and burnout (Eby, Casper, Lockwood, Bordeaux and Brinley, 2005). This indicates the importance of maximising employee wellbeing.

In addition, there has been increasing emphasis placed on the development of national policy in relation to wellbeing measures to support traditional economic measures of success such as Gross Domestic Product (GDP) (ONS, 2012b; NEF, 2012a; GOS, 2008; Stiglitz, Sen and Fitoussi, 2009; Self, Thomas and Randall, 2012; Helliwell, Layard and Sachs, 2012) with a purpose of enriching society (Stiglitz et al, 2009). Given this shift in focus towards the use of wellbeing at a national level, understanding what leads to, maintains and enhances wellbeing is becoming increasingly important. In the UK, the wellbeing of the population is measured to inform the development of policy in relation to increasing the happiness of the nation, and providing an understanding of where to target resources (Tinkler and Hicks, 2011). From a workplace perspective, competition from the emerging economies means that the psychological capital which wellbeing offers will help to increase competitiveness and success of the UK as a whole (GOS, 2008). Given that a focus on wellbeing has only been part of the national policy in the UK since late 2010 (Spence, Powell and Self, 2011), work is required to understand the antecedents which might influence wellbeing.

1.3 Satisfying Needs to Optimise Wellbeing

Needs are the minimum set of values that individuals seek to satisfy (Alkire, 2005) and need satisfaction can be considered to be an antecedent of wellbeing (Ryan, Huta and Deci, 2008). Studies in positive psychology have brought together organismic and cognitive behavioural fields of psychology, which have previously been developed relatively independently, to consider need satisfaction as an antecedent to wellbeing. However, this synthesis of previously separate research has generated debates in the positive psychology literature as to how need satisfaction is associated with wellbeing, in addition to what constitutes a need.

Satisfying needs may be a practical means of implementing successful strategies for individuals. Satisfying needs is argued to be a useful antecedent to consider as needs are the capabilities which all humans have (Finnis, 2011) and therefore have the potential to be satisfied by anyone. This means that there is a benefit of looking at this particular antecedent to wellbeing, rather than aspects which may be more difficult to control such as personality, social support or job design. For example, antecedents such as personality are fixed traits (McCrae and Costa, 2003) and therefore more difficult to change. Aspects such as job design (Kompier, 2003) or social interactions (Ng, Eby, Soresen and Feldman, 2005) may be more difficult for an employee to control.

Meeting the basic needs of employees (such as development or relationships) in organisations is likely to increase wellbeing and buffer individuals against the stressors of the job and from burnout (Van den Broeck, Vansteenkiste, De Witte, Soenens and Lens, 2010). However, the work-family literature also indicates that a 'balanced life' is associated with employee wellbeing (Westman, Brough and Kalliath, 2009), suggesting that there will be a benefit to considering need satisfaction in life as well as work. Needs have been shown to increase wellbeing in both work (Baard et al., 2004) and life in general (Sheldon, Ryan, Deci and Kasser, 2004) and are therefore considered to be appropriate antecedents to consider. However, how needs should be satisfied *across* the work and life domains is not well understood.

This study is therefore concerned with how needs in work and life can be satisfied to optimise wellbeing. There is an association between wellbeing and performance (Wright, 2010) which suggests that it is useful for organisations to influence their human resource management practices to maximise the wellbeing (and therefore performance) of their employees. By considering overall wellbeing, rather than job specific measures (Tait, Padgett and Baldwin, 1989), employees may also benefit from ensuring optimised wellbeing across all domains of life, rather than the workplace only.

1.4 Overview of Research

The overarching aim of the study is to examine how needs are satisfied in work and life to optimise wellbeing. The study therefore begins from the premise that individuals will desire to pursue and satisfy a range of basic needs (Ryan et al, 2008a; Ryan and Deci, 2000). Recent debates in the field of positive psychology have suggested that these needs should reflect an Aristotelian conception of a fulfilled life (Ryan et al., 2008). There are few need theories which convincingly represent an Aristotelian fulfilled life and these are either limited in scope (e.g. Ryan et al, 2008) or do not have the same extent of empirical support (e.g. Finnis, 2011; Maslow, 1954/1987). Developing a framework of needs which is soundly based on Aristotelian theory is required to allow a more comprehensive exploration of how need satisfaction is associated with wellbeing.

In addition to developing a clearer understanding of the needs which should be satisfied, it is necessary to apply this framework to both life and workplace contexts. Limited studies have been conducted on how needs are satisfied across different domains and how this is associated with wellbeing (Matuska, 2010; Sheldon, Cummins and Kamble, 2010a; Milyavskaya Gingras, Mageau, Koestner, Gagnon, Fang and Boiché, 2009), and none provide an assessment of needs where work takes a central focus. In addition, any contextual factors which might prevent or enable need satisfaction must be considered.

While practitioners and policy makers do attempt to ensure appropriate focus on both domains (referring to this as 'work-life balance') (Grzywacz and Carlson, 2007), it is unclear what 'balance' actually is (Matuska and Christiansen, 2008). This study

considers a 'balanced' life to be one where needs are satisfied in both work and life in a way that optimises wellbeing. To do this, it is argued that individuals will direct their energy equally to both domains in order to satisfy their needs. The extent to which an individual directs energy to either domain is referred to as work-life orientation, where a balanced work-life orientation is when equal amounts of energy are directed to both domains. This is different from 'work orientations', which are the intrinsic or extrinsic rewards that individuals seek from their work (Malka and Chatman, 2003; Inkson and Cammock, 1987). Rather, work-life orientation represents the level of engagement which an individual has with each domain (Marks and MacDermid, 1996). Given the lack of understanding of how work and life needs should be satisfied in order to maximise wellbeing, human resource practitioners are less equipped to devise effective policies and interventions which increase employee wellbeing. In addition, employees require to know which choices to make in each domain in order to optimise their own wellbeing.

1.4.1 Importance of studying Scottish primary teachers

This study specifically considers teachers and teaching. This is a profession which is known for its high incidence of burnout (Timms, Brough and Graham, 2012), work-life conflict (Cinamon and Rich, 2005a, 2005b), and emotional pressures and vulnerability (Kelchtermans, 2011), but also high engagement (Bakker, Hakanen, Demerouti and Xanthopoulou, 2007). Understanding how to increase wellbeing helps to ensure that the profession remains an attractive proposition for high quality graduates. Despite the challenges of the job, teachers provide an important role in society in developing future generations. It is crucial that the job remains attractive and can retain experienced teachers who are skilled at developing their pupils.

Given the increasing challenges and pressures that Scottish teachers face in their day to day jobs (McCormac, 2011; NASUWT, 2006; Adams, 2005), there is value in considering the individual and employer actions which can be taken to improve the lives and wellbeing of teaching professionals. Considering the choices which teachers can make in relation to their jobs and how they impact on their wellbeing may help to maintain or increase their performance in relation to the challenges and changes which they may be experiencing. This has been a particularly interesting time to study Scottish teachers, given the recent changes to the curriculum from a

standardised format to a values and child-centred approach to learning. The concept of personal commitment put forward in the most recent General Teaching Council standards (GTCS, 2012b) indicates an expectation that teachers will develop personal values which will underpin and support their professional roles. This, along with recent consideration of the employment conditions of teachers in the McCormac report (2011) and in teacher education and development in the Donaldson Report (2010) highlights the expectations on teachers in terms of what they contribute to their roles. While there is a clear professional strategy for Scottish teachers, there is less emphasis on their wellbeing. There has been research on teacher wellbeing in other areas of the UK (Day, Simmons, Stobart, Kington and Gu, 2007; Woods, Jeffery, Troman and Boyle, 1997; Nias, 1989), but Scottish teachers' wellbeing is under researched.

The primary teaching profession is important to the wellbeing strategies of both the UK and Scottish governments and it is therefore relevant for public sector agencies and organisations to lead the way in embracing approaches in optimising wellbeing. Teachers can facilitate economic benefits through the education of others (Menter and Hulme, 2012), but also support the development of wellbeing for future generations. It is therefore important that they are aware of the factors which encourage optimum levels of wellbeing, as well as being able to increase their own wellbeing. It is a salient time to study this topic in relation to the increasing national and academic focus on living a fulfilled and happy life (ONS, 2012a; Kashdan et al., 2008; Seligman and Csikszentmihalyi, 2000).

In short, this study aims to identify what needs should be satisfied in work and life and the effects this has on wellbeing. It considers the teacher as both a professional and a private individual and therefore looks at need satisfaction in work and life as well as using global measures of wellbeing, rather than job-specific ones. The context in which teachers work may enable or challenge the satisfaction of these needs and a further aim of the study is to explore these contextual factors. Ensuring the profession is an attractive career is essential and this study helps to establish an understanding of how the strategies and policies in Scottish education can be developed to support individual pursuit of need satisfaction and wellbeing.

1.4.2 Research Questions

The aim of this thesis is to examine how needs are satisfied in work and life to optimise wellbeing. Five research questions were posed to address this aim. Research Question 1 asks: What basic needs must be satisfied in both work and life domains for wellbeing? Research Question 2 asks: What orientation to work and life leads to optimum levels of need satisfaction? Research Question 3 asks: How do (a) promotion (b) tenure in role (c) age and (d) gender influence work-life orientation, need satisfaction, and wellbeing? Finally, Research Questions 4 and 5 ask: What are the most significant enablers and challenges in achieving/ maintaining satisfied needs in work? and What are the most significant enablers and challenges in achieving/ maintaining satisfied needs in life?

1.4.3 Research Approach

Given the absence of a framework of needs which is fully reflective of the Aristotelian fulfilled life, to address Research Question 1, it was necessary to conduct a series of exploratory interviews to consider the needs that individuals seek to satisfy. Interviews, which took a life-history type approach and considered both work and life events, were therefore conducted with 12 teachers and retired teachers. A further 11 interviews were then conducted with central employees of a local authority, along with employees of a teaching organisation, to gain an additional perspective on the needs and wellbeing factors which teachers experience. These interviews also provided data to address Research Questions 4 and 5, with the interview data used to identify challenges and enablers to need satisfaction in work and life. Survey items were then developed on the basis of the interview findings and the literature review. Research Question 2 examines the associations between work-life orientation, need satisfaction and wellbeing. The survey therefore includes pre-existing scales to measure wellbeing (affect, life satisfaction and meaning in life), as well as looking at the needs which can be satisfied in both work and life. The survey findings were used to confirm the important needs and explore the relationship between need satisfaction and wellbeing. The survey also included measures of role, role tenure, age and gender to address Research Question 3. It was sent to primary teachers in five local authorities in Scotland and 174 responses were received.

1.5 Thesis Outline

An overview of the literature is provided in Chapter 2 to explain the rationale for the development of the research questions. It establishes that need satisfaction is an antecedent to wellbeing and that needs should be reflective of an Aristotelian fulfilled life. Chapter 2 provides an overview of the key need theories, and outlines a framework of needs and provides further literature which suggests that each of these needs is important to fulfil. It outlines a justification for orientating energy to either the work or life domain in order to satisfy needs and argues that a balanced orientation to work and life will be most effective. It considers the effects of promotion, tenure in a role, age and gender. Finally, it provides an insight into the potential enablers and challenges that might constrain need satisfaction. The chapter culminates with the conceptual framework proposed in this study and presents the research questions and hypotheses on which the empirical work is based.

Chapter 3 considers the literature in relation to teachers to establish that this group of employees is appropriate to study. It highlights that teachers are prone to high levels of stress and burnout, despite being engaged with their job and considers their career and life stages. It is argued that this may have an effect on their ability to satisfy needs. Chapter 3 then considers the contextual enablers and challenges and looks more specifically at Scottish primary teaching and the changes which may have affected this group over a range of nearly 50 years, providing an understanding of the changes which teachers have lived and worked through to give a context for the teacher interviews. It finishes with a review of the current contextual influences and considers whether this may impact on current populations of Scottish primary teachers.

Chapter 4 gives an overview of the research philosophy and the methods used to develop and collect the interview and survey data. It provides an overview of the research strategy, outlines both the interview and survey methods and considers some of the benefits and risks of using these approaches. It justifies the use of interviews as an initial method for exploring whether teachers experience need satisfaction in work and life. It then explains the development of the survey. An

overview of the sampling approaches and study participants is given, as well as the choice of analysis methods used to produce the findings.

Chapters 5, 6 and 7 present three groups of findings and each chapter presents a set of findings in relation to a specific hypothesis or hypotheses. Chapter 5 presents the findings from the teacher and stakeholder interviews which provide data to support the choice and development of the need variables used in the survey as well as indications of the enablers and challenges which may prevent need satisfaction. It also outlines the findings from the principal component analysis which suggest a modified framework containing seven overarching dimensions that can be satisfied in work and life. Chapter 6 presents additional findings of the survey. It outlines the associations between need satisfaction and wellbeing and indicates that satisfying needs in both domains will lead to optimised wellbeing. It also indicates that only certain needs have an effect on increasing wellbeing. The findings in this chapter also consider the effects of promotion, role tenure, age and gender on need satisfaction, work-life orientation and wellbeing. Finally the enablers and challenges to need satisfaction are presented in Chapter 7. Findings from the interviews are outlined to show the various contextual effects on both need satisfaction and the level of energy which individuals direct to either the work or life domain.

Chapter 8 provides a discussion of the findings of the research as a whole. It also presents the conceptual model and indicates the changes to the model in relation to the findings. The chapter considers the extent to which the findings may be relevant to other employees and provides evidence from the extant literature which suggests that the model may have relevance outwith the group of teachers studied. Chapter 9 concludes the study, providing an outline of the original contributions of this thesis, some practical recommendations for organisations and the research limitations, along with some implications for further research.

1.6 Chapter Summary
This chapter has outlined a rationale for the importance of wellbeing for employees and has highlighted a current lack of understanding as to what needs should be satisfied in work and life to achieve wellbeing. There is both a lack of understanding of what needs represent an Aristotelian fulfilled life, and how these should be

satisfied *across* work and life. It argues that the use of wellbeing measures are useful to both organisations and employees and proposes that need satisfaction is a useful antecedent to wellbeing. This is because employees may have a certain amount of control over satisfying their needs. There is a requirement to establish what needs are important to satisfy in both work and life, as well as to show how these will impact on wellbeing. There is no clear understanding of the needs which are required to be satisfied in work and life to optimise wellbeing and the purpose of this thesis is to explore this. An understanding of how these needs might be enabled or challenged by the work or life context is also required. A justification for studying Scottish primary teachers has been proposed, along with a summary of the research approach and methods which were used to conduct the study. The chapter concludes with an outline of the structure of the thesis.

Chapter 2 provides an in-depth justification for the research aim which is to investigate what needs should be satisfied in the work and life domains to optimise wellbeing. It argues that an Aristotelian view of a fulfilled life should be used to establish a comprehensive framework of needs which can be satisfied in both work and life. It also outlines research which suggests that satisfying needs equally in both domains results in optimised wellbeing. The chapter considers the potential effects of promotion, role tenure, age and gender on need satisfaction, as well as the enablers and challenges that can support or prevent the satisfaction of needs.

Chapter 2
Satisfying Needs in Work and Life to Optimise Wellbeing

2.1. Introduction

Chapter 2 gives an overview of the literature which provides a rationale for studying need satisfaction in work and life as an antecedent to wellbeing. First a brief overview of the conceptual model is provided to outline the variables which are discussed in the literature review. A review of the literature is then presented, along with the corresponding research questions and hypotheses. An overview of wellbeing is provided, defining what it is and outlining the three measures (affect, life satisfaction and meaning in life) which are argued to constitute wellbeing. Wellbeing is then argued to be both a useful proxy for work performance, and a more appropriate measure than job-specific measures of wellbeing. This chapter proposes that needs are antecedents to wellbeing and engages with the current debates in the positive psychology literature which draws on Aristotelian philosophy to define what needs are. It discusses the strengths and limitations of three need satisfaction theories and argues that a range of needs are relevant to the workplace and life. The need theories are then used as a basis for developing a framework of needs. Justifications are provided to show that each need is important to consider.

The chapter then considers how needs should be satisfied across work and life. It considers two approaches: what needs should be satisfied in the work and life domains and work-life orientation (the extent to which an individual directs his or her energy at either the work or life domain) to be able to satisfy needs across both domains. Given that satisfying needs in work (Baard et al., 2004) or life (Kasser and Ryan, 1996) will lead to wellbeing, an argument is proposed that satisfying needs in both domains will be positively associated with wellbeing (i.e. affect, life satisfaction and meaning in life). Life balance studies indicate that satisfying needs across multiple domains will also optimise wellbeing (Matuska, 2010; Sheldon et al, 2010a; Milyavskaya, 2009) and this may be achieved by directing energy to each domain

(Mark and MacDermid, 1996). However, how needs should be satisfied in the domains of work and life has not been specifically considered. How factors such as age, gender, work role and tenure in a role might impact on need satisfaction are then considered. Need satisfaction can be either supported or prevented by factors in the individual's environment, including interactions with others, availability of choice or level of control (Deci and Ryan, 2012). This chapter also briefly considers the effects of enablers or challenges to need satisfaction in the work and life domains.

The chapter concludes with a conceptual framework which suggests that, in order to optimise wellbeing, a balanced work-life orientation is required. Depending on where the energy is directed results in needs being satisfied in work, life or both domains. By directing energy equally at both domains it is hypothesised that there will be optimal need satisfaction and this in turn will optimise wellbeing. The conceptual framework also suggests that enablers and challenges and factors such as age, gender, role and role tenure will affect an individual's ability to satisfy needs in either domain. The hypotheses are summarised in relation to this model.

2.2 Overview of Conceptual Framework
In order to provide a context for the following chapter, the conceptual framework is presented in Figure 1. The remainder of this chapter reviews the literature to establish a rationale for this proposed model. Work-life orientation is the energy which an individual directs to either the work or life domain. This in turn facilitates the satisfaction of needs in either or both domains. Where an individual orientates his or her energy equally to both domains and successfully satisfies needs in both domains as a result, wellbeing will be optimised. An individual's ability to satisfy needs or to have a balanced work-life orientation may be constrained by contextual enablers and challenges. Work-life orientation, need satisfaction and wellbeing are also argued to be impacted by the life or career stage of the individual, which again influences the ability or desire to satisfy certain needs.
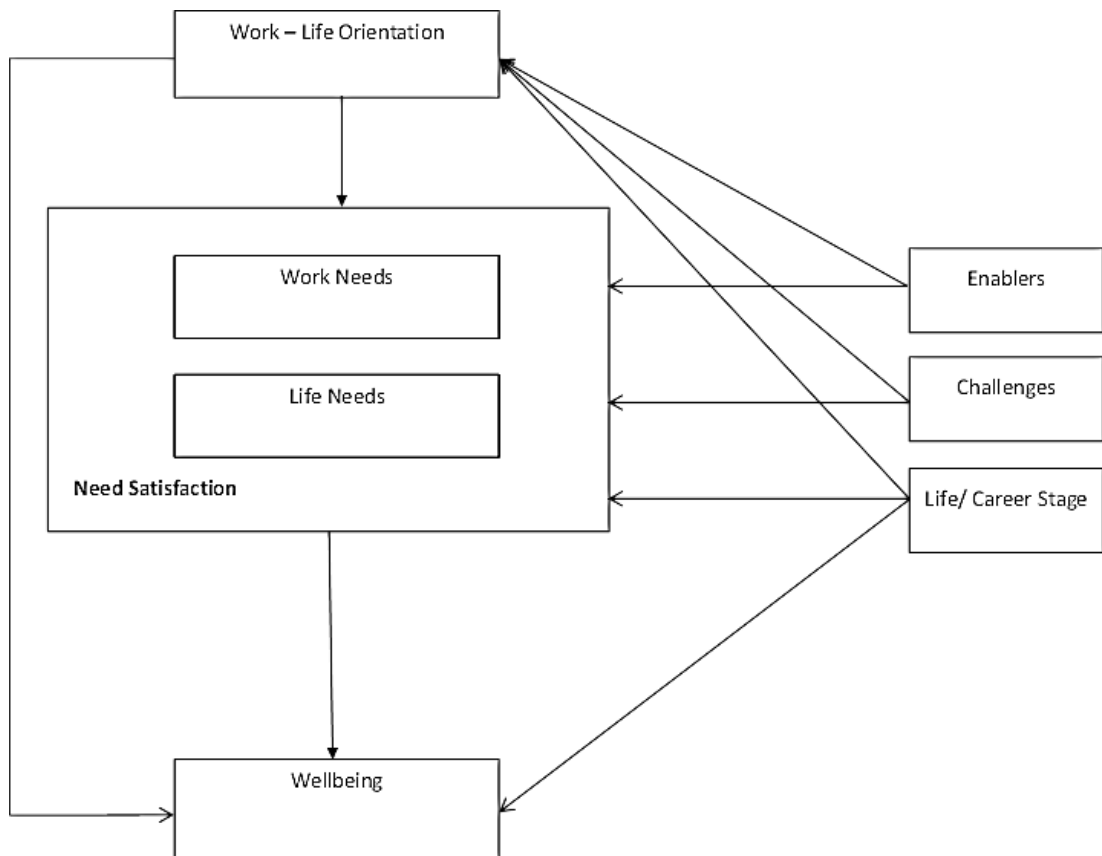
Figure 1 A model of work-life need satisfaction and wellbeing.

2.3 What is Wellbeing?

While the positive psychology movement has attempted to consolidate theories of wellbeing, the literature abounds with constructs of wellbeing which can be confusing and lack definition. For example, although Buss (2000) discusses the evolutionary development of happiness, he does not explain what he means by this term. Seligman (2003) uses the concept of the fulfilled life interchangeably with happiness and with the psychological flow state (which indicates an absence of emotion) (Csikszentmihalyi, 2002). Recent debates on the different types of wellbeing indicate the difficulty which scholars have in agreeing a coherent theory of wellbeing (Diener, 2000; Deci and Ryan, 2008; Kashdan et al, 2008; Ryff and Singer, 2008).

Despite there being no standard conceptualisation of wellbeing and its dimensions, there is agreement on the relevance and usefulness of wellbeing in relation to building positive psychological resources. This study focuses on three measures of

wellbeing (affect, life satisfaction and meaning in life), arguing that each of these measures is important. These measures are outlined in turn, with affect and life satisfaction considered under the overarching concept of subjective wellbeing.

Within the positive psychology literature, subjective wellbeing is a common construct. Subjective wellbeing is an individual's own assessment of wellbeing and provides information in relation to assessing his or her life and goals (Diener and Suh, 1997). While there is some debate about what constitutes subjective wellbeing (Angner, 2010), it is most commonly considered to be a combination of positive and negative affect and life satisfaction (the cognitive appraisal of an individual's life) (Diener, 2009; Kahneman and Kreuger, 2006; Diener, Suh, Lucas and Smith, 1999 ; Diener and Diener, 1996).

Positive and negative affect are evaluations of the emotions which take place in reaction to life events (Diener, Sandvik and Pavot 2009). Emotions can be considered as states (e.g. anger) which can change over time (Frijda, 2003; Lazarus, 1991b). Positive emotions can result in greater resilience, better relationships and information processing (see Fredrickson and Kurtz (2011) for summary). Conversely, negative emotions are associated with ruminating and depression (Gross and John, 2003). Life satisfaction brings a necessary additional dimension to affect in that one must also be satisfied with one's life, as well as feeling positive emotions (Sirgy, 2012), and is considered to be an evaluation of the quality of life (Pavot and Diener, 2009). Life satisfaction measures the cognitive appraisal a person makes of his or her life (Lucas, Diener and Larsen, 2009; Pavot and Diener, 2009).

This construct of subjective wellbeing is considered to be a useful but limited (Waterman, 1993) measure of the cognitive and affective dimensions of wellbeing. Subjective wellbeing can be measured as an immediate experience or as a recollection of cognitive and emotional states, with remembered experience likely to be less accurate as individuals tend to remember the most recent emotions and assessments (Kahneman, Fredrickson, Schreiber and Redelmeier, 1993). However, the individual's subjective view of wellbeing may be a useful assessment when considering the outcomes of their choices in life, even where their retrospective

evaluation may differ from immediate evaluations. In general, individuals will report above average subjective wellbeing (Diener and Diener, 1996).

There is an argument for striving for an optimum, rather than the highest, level of subjective wellbeing. Although one of the aims of positive psychology is to increase positive emotions, caution must also be applied when trying to completely remove negative emotions (Oishi, Diener and Lucas, 2007) as negative emotions are more useful in life threatening or challenging situations (Gruber, Mauss and Tamir, 2011). Positive emotions are more likely to increase adaptive actions and responses (Fredrickson, 2001), but high levels of positive emotions can also be shown to be maladaptive. For example, Gruber et al (2011) suggest that extreme levels of emotion can be associated with mania or psychopathy, rather than happiness. Oishi et al (2007) also show that there is an optimum level of life satisfaction (moderately high) which is associated with levels of achievement and civic duties (although relationships with others are associated with higher levels of life satisfaction). However, they also caution that having wellbeing is a good thing, despite extreme levels being potentially maladaptive.

An additional measure of wellbeing, meaning in life, is also required to capture the additional cognitive assessment of fulfilment. Meaning in life is defined as the 'self-perceived significance of one's life' (Steger and Frazier, 2005: 575) and is viewed as essential to experiencing wellbeing, even if an individual is viewed as having an objectively satisfying life (Wong, 1989; Frankl, 1959:2004). Meaning in life is obtained when a person feels they have a place in the world and knows what their aims in life are (Steger, Kashdan and Oishi, 2008a) and creates the best life one can (Steger, Frazier, Oishi and Kaler, 2006). An individual is motivated to carry out actions because it has meaning to him or her (Klinger, 1977; Waterman, 1993; Waterman, 1984; Hocking, 1973) and an individual's decision to pursue a goal or not stems from the level of meaning which an individual derives from that goal (Klinger, 1977). It is therefore argued to be a dimension of wellbeing which is not captured by subjective wellbeing.

There are a number of benefits to having meaning in life and for justifying it as an additional dimension of wellbeing. These include better coping skills and increased

chance of recovering from mental ill health (Debats, 1999), improved self-esteem (Taubman-Ben-Ari, Ben Shlomo and Findler, 2011), and reduced stress and depression (Mascaro and Rosen, 2006). Meaning in life and subjective wellbeing are associated with each other (Zika and Chamberlain, 1992) but they represent separate measures within an overall construct of wellbeing (Steger and Kashdan, 2006). Measuring meaning in life therefore provides an additional insight into wellbeing. Overall, subjective wellbeing (affect and life satisfaction) and meaning in life are argued to be appropriate dimensions to consider. While these are general measures of wellbeing, the following section considers the benefits of studying them in a work context.

2.4 The Importance of Wellbeing in the Work Domain

Given that individuals spend a large proportion of their time in the workplace, the workplace may provide conditions which enhance wellbeing. Work is argued to be an important focus in an individual's life for creating positive psychological conditions (Friedman and Greenhaus, 2000). Wellbeing may also be a useful predictor of workplace performance (Wright, 2010). This indicates the importance of the positive psychology stance which aims to increase wellbeing, rather than simply minimise psychological distress. This can be seen in studies already being conducted in this field. For example, positive organisational scholarship considers wellbeing in the workplace. However, most studies in this area have been conducted at the organisational rather than individual level (Ko and Donaldson, 2011), and a greater understanding is required of how individuals seek and achieve wellbeing in the workplace and how this affects other parts of their lives.

Work performance represents the behaviours which individuals demonstrate in their jobs in relation to the activities they are expected to carry out (Brien, Hass and Savoie, 2012; Weiss, 2002). The objective measurements of performance which are used in studies (Cropanzano and Wright, 2001), provide outcomes which are of importance to supervisors and the organisation, but not necessarily to the employees themselves. There are studies which indicate that general measures of wellbeing will predict work performance (Wright, 2010; Wright and Cropanzano, 2000) and this focus on wellbeing may have benefits to both employees and employers.

Cropanzano and Wright (2001) argue that lower performance in unhappy workers can be due to lower wellbeing, which reduces risk taking behaviours and causes individuals to defend themselves to conserve their limited psychological resources. General wellbeing, in particular, has been shown to have greater impact on performance than work-related measures such as job satisfaction (Cropanzano and Wright, 2001), with individuals who have high levels of wellbeing showing a stronger job satisfaction – performance relationship (Wright, Cropanzano and Bonett, 2007).

This suggests that a more general understanding of wellbeing is valuable in comparison to the more conventionally used job-specific measures. For example, job satisfaction is the extent to which the job provides experiences and outcomes which an individual considers to be important (Locke, 1969). The range of job satisfaction measures are extensive and measure affective and cognitive responses to the workplace (Thompson and Phua, 2012; Van den Broeck et al, 2010; Judge and Ilies, 2004; Caprara, Barbaranelli, Borgogni and Steca, 2003; Weiss, 2002). More recently, measures of meaning at work have been developed (Steger, Dik and Duffy (2012), which consider an additional dimension of work-specific wellbeing.

However, measures of wellbeing at work, such as job satisfaction, do not give a full understanding of the employee's wellbeing (Rode, 2004; Judge and Watanabe, 1993) and workplace wellbeing should not be considered without more general measures of wellbeing being taken into account (Tait, Padgett and Baldwin, 1989). For example, seeking job satisfaction can be to the detriment of other domains, which in turn may negatively impact on career success (Heslin, 2005), and may therefore not provide an adequate picture of an individual's wellbeing. In addition, the success generated in work may not necessarily result in overall life satisfaction (Parker and Chusmir, 1991; Kofodimos, 1990). Employees may not seek job satisfaction if the job itself is satisfying areas of life, for example, spending more time with children (Wright, 2010), which means that job satisfaction may not be an outcome that all individuals pursue.

Studies show that job satisfaction and life satisfaction correlate with one another (Judge and Watanabe 1993; Tait et al, 1989), suggesting that life satisfaction

measures capture the salient aspects of job satisfaction, without requiring to measure both domains individually. In addition, job satisfaction does not predict workplace performance as well as general wellbeing (Wright and Cropanzano, 2000) and may be more limited in predicting performance. In general, life satisfaction has a range of positive results for employers, including lower turnover and higher performance (Erdogan et al., 2012). Therefore a general measure of wellbeing, such as life satisfaction, provides a more holistic consideration of how a person's work affects their overall wellbeing. Furthermore, the contribution of the work domain to life satisfaction is not well understood (Erdogan et al, 2012), suggesting that this is an area which would benefit from further research.

Similarly, much of the research on meaningful work has been conducted from the perspective of organisations seeking to control the meaning that employees experience in order to ensure performance (Lips-Wiersma and Morris, 2009). While meaning in work may be important to avoid detachment from the job (May, Gilson and Harter, 2004), using meaning in work to enhance motivation may have a knock on effect of reducing wellbeing in other parts of their life (Bunderson and Thompson, 2009). Calling at work measures correlate with meaning in life (Steger and Dik, 2009), suggesting that the broader measure of meaning in life captures meaning at work without neglecting the meaning which is fostered in other areas of life.

In summary, it has been argued that subjective wellbeing (affect and life satisfaction) along with a measure of meaning in life are the most appropriate ways of measuring wellbeing at work as well as in life. Wellbeing can be argued to be a proxy for performance. However, the focus on wellbeing will also benefit individuals in terms of ensuring their overall psychological health. These measures of wellbeing are likely to capture workplace wellbeing, without the need for using additional measures such as job satisfaction. This allows an understanding of wellbeing in both the work and life domains. Given that work and global measures of wellbeing correlate (Judge and Watanabe 1993), work specific wellbeing is argued to be subsumed into the global measures.

2.5 Need Satisfaction as an Antecedent to Wellbeing

Given that wellbeing is important in the work and life domains, it is useful to consider ways of optimising wellbeing and need satisfaction is one way of doing this. Needs are defined as the most basic intrinsic capabilities that individuals seek to realise (Finnis, 2011; Alkire, 2005) and are outcomes of psychological growth and physiological requirements (Deci and Ryan, 2000). There are a range of needs, values and capability theories (e.g. Sen, 2001; Finnis, 2011; Alkire, 2002; Maslow, 1968/1999; Deci and Ryan, 2000; Ryff, 1989b; Schwartz, 1992 or see Philips (2006) for summary), all of which consider the goals and actions which are likely to lead to a fulfilled or quality life.

Recently, there has been a focus on needs which reflect the Aristotelian view of a fulfilled life, or what Aristotle referred to as eudaimonia, and need satisfaction is considered to be an indicator of eudaimonia. However, while certain need frameworks have been argued to represent a fulfilled life (Ryan, Huta and Deci, 2008; Ryff and Singer, 2008), there is a lack of consistency around which needs represent Aristotle's conceptions of a fulfilled life. Rather than attempt to retrofit need theories into an Aristotelian philosophy, it is considered important to start with a comprehensive framework of needs which can then be empirically tested.

A fulfilled life, as viewed by Aristotle, is concerned with the assertion that humans have a universal set of inner capabilities which they can choose to satisfy over a period of time (Hughes, 2001; Norton, 1976). The capabilities themselves are not observable but the outcomes are (Norton, 1976) in the form of satisfied needs. For example, Everson (1995) cites Aristotle's example of an axe and its potential to chop objects as a necessary pre-requisite to it being an axe. Likewise, it can be argued that the Aristotelian needs are the necessary pre-requisite to being a fulfilled human and individuals have the potential for these needs, whether or not their capabilities are exercised (Finnis, 2011).

Aristotle argues that while the emotional dimension of pleasure is not the aim of a fulfilled life, it is a likely outcome (Gottlieb, 2009; Hughes, 2001; Norton, 1976), suggesting that need satisfaction may be associated with wellbeing. However too great a focus on dimensions such as positive emotions potentially undermines the

intrinsic benefits of need satisfaction (Gottlieb, 2009) meaning that wellbeing should be optimised, rather than maximised. Aristotle is concerned with the concept of balance and moderation, believing that the satisfaction of inner capabilities and the emotions which arise as a result should not be sought in extreme quantities (Gottlieb, 2009).

Satisfying needs is considered to be relevant to all individuals. In addition, while Aristotle might argue that certain groups of people may not be able to reach fulfilment in the same way (Hughes, 2001), for example, women or slaves, this has been discarded by more current Aristotelian commentators (e.g. Sen, 2001; Nussbaum, 1995). Aristotle indicates that the fulfilment of human capacities can exist side by side with cultural influences and Nussbaum (1995) argues that, despite the assumptions that only certain individuals can realise their capabilities, there are common aspects which all humans share, regardless of culture.

2.5.1 Aristotelian Debates in the Positive Psychology Field: Eudaimonia as Need Satisfaction

The Aristotelian concept of fulfilment, or 'eudaimonia', has received considerable interest in recent literature, sparking debates about what it is and whether it is different from other wellbeing measures (Kashdan et al, 2008). Given this lack of agreement, it is important to clarify the assumptions being used in this study, which are that need satisfaction is eudaimonia and that this is an antecedent to wellbeing.

Waterman, Schwartz, Zamboanga, Ravert, Williams, Bede Agocha, and Brent Donnellan (2010: 41) define eudaimonia as the 'quality of life derived from the development of a person's best potentials and their application in the fulfilment of personally expressive, self-concordant goals'. They argue that fulfilment involves realising one's fullest potential through action (Waterman, 1990), with the required activities taking energy and effort to achieve (Waterman, 1984). This is consistent with the notion of need satisfaction. While eudaimonia is viewed as a discrete state from other measures of wellbeing (Waterman, 1993), there is debate about whether it is a measure of wellbeing or an antecedent. The definition of eudaimonia is unclear (Waterman, 2008) and can range from being a separate but complementary construct of wellbeing (Keyes, Shmotkin, and Ryff, 2002; Waterman et al., 2010), to a

potential outcome of subjective wellbeing (Fredrickson, 2010; Deci and Ryan, 2000), to an antecedent of subjective wellbeing (Kashdan et al, 2008).

Waterman (1993; 1990) argues that one can experience 'feelings' of eudaimonia and indicates that self-expression and reaching potential through utilising personal strengths are likely to lead to fulfilment and a corresponding emotional response. However, Deci and Ryan (2008) argue that eudaimonia does not need to be accompanied by positive emotions or satisfaction with life, although it can be an output (e.g. Ryan and Deci, 2000; Tay and Diener, 2011). Ryan and Huta (2009) argue that need satisfaction is an indicator of eudaimonia. Need theorists argue that the satisfaction of needs act as indicators of living a eudaimonic life (Ryan et al., 2008), and that these intrinsic goals will lead to both physical and psychological health (Ryan and Huta, 2009).

Following the arguments put forward by self-determination theorists (Ryan et al., 2008), satisfaction of needs indicates a fulfilled life and is indicative of eudaimonia. It is likely that satisfaction of these needs will be associated with greater levels of subjective wellbeing (Ryan and Huta, 2009; Ryan et al., 2008), but need satisfaction does not necessarily lead to pleasure (Kashdan et al, 2008). Meaning is one other outcome which can also be associated with need satisfaction (Ryan et al, 2008; Deci and Ryan, 2006; Waterman, 1993). Given that need satisfaction represents a fulfilled life, it is positioned as an antecedent to wellbeing.

2.5.2 Limitations of Current Need Frameworks in Relation to Aristotelian Philosophy
The need frameworks which have been tested in the psychological literature are generally not developed from a consistent Aristotelian philosophical basis and may not be reflective of eudaimonia. This means there is no clear framework of needs which can indicate a fulfilled life. Aristotle would argue that the needs of an individual range from physiological to needs concerning the highest capabilities of human beings (Hughes, 2001). Maslow (1968/1999) provides a comprehensive set of needs which provides a range that Aristotle is concerned with, but there is little empirical support for his theory. Despite being associated with an Aristotelian philosophy (Deci and Ryan, 2006; Ryan et al, 2008), Self-Determination Theory

(Ryan and Deci, 2000) is more limited and focuses only on psychological needs, although this need theory has been widely studied, more latterly within an occupational setting (as well as with teachers). Sheldon, Elliot, Kim and Kasser (2001) have attempted to provide evidence for a more extensive need framework. However, a central focus of this study is to provide support for the three self-determination needs, rather than to provide insight into a range of needs which represent Aristotelian fulfilment.

The set of needs put forward by Finnis (2011) (skilled performance, knowledge, health, vigour and safety, friendship, family, authenticity and belief) are argued to be the most appropriate set to consider within the context of this study, given their development from Aristotelian philosophy. This is despite Finnis's theory lacking empirical support. Many other need theories and frameworks could have been considered, in addition to sets of values and capabilities. In particular, Nussbaum's capabilities (Nussbaum, 2011) are also based on an Aristotelian philosophy but are considered to be overly prescriptive (Alkire, 2005), limiting the choices which individuals are able to make.

In summary, there is a distinct argument for considering need satisfaction as indicative of a fulfilled life, with measures of wellbeing (such as affect, life satisfaction and meaning in life) being associated with, but not a necessary outcome of, need satisfaction (Ryan et al, 2008). Hedonic activities (e.g. eating unhealthy but tasty foods or watching television) may also lead to subjective wellbeing (although these will not be considered as part of this study). Figure 2 outlines this conceptualisation. The limitations of existing need frameworks, either in range or in empirical studies means that it is important to establish which needs represent a fulfilled life.

Hedonic activities

Subjective Wellbeing

Affect

Life Satisfaction

Fulfilment (Eudaimonia)

Satisfaction of Needs

Meaning in Life
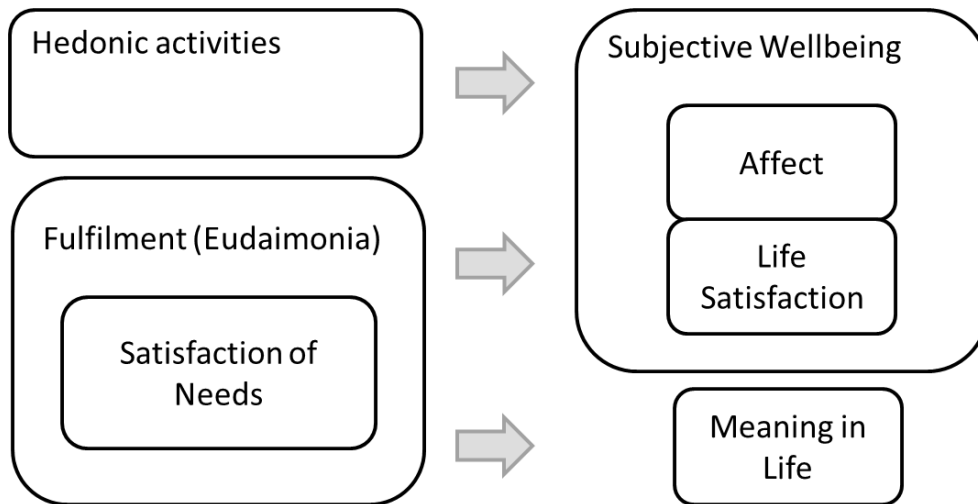
Figure 2 The relationship between need satisfaction and wellbeing.

2.6 Development of a Need Satisfaction Framework

The previous section has put forward the argument that needs are antecedents to wellbeing. It argues that needs are the basic capacities which an individual seeks to fulfil and that the Aristotelian concept of eudaimonia explains what those needs are. By satisfying needs, an individual may be able to optimise his or her wellbeing. Existing need frameworks are limited by not reflecting the full range of needs or by lack of empirical support for that theory. As a result, the first research question explored in this research considers the nature of needs related to achieving wellbeing.

RQ 1; What basic needs must be satisfied in both work and life domains for wellbeing?

The purpose of this question is to examine which needs represent a fulfilled life to ensure that all potential capacities are considered. In addition to understanding which needs an individual will seek to satisfy, it is also necessary to explore whether those needs apply to both the work and life domains and that that they contribute to wellbeing. Sections 2.6.1 to 2.6.6 explore each of the need theories in more detail and propose a framework of needs which fully reflects fulfilment in work and life. Three need satisfaction theories (Basic Goods, Hierarchy of Needs and Self-Determination Theory) are considered and a framework of needs proposed.

2.6.1 Finnis' Basic Goods as an Aristotelian Need Satisfaction Framework

Finnis puts forward a set of needs ('Basic Goods') which are considered useful to this study, due to their strong basis in Aristotelian philosophy. Basic Goods are a set of capacities that individuals have which, when realised, allow a person to become fulfilled (Finnis and Grisez, 1981). Each need is put forward as an irreducible, basic reason for taking action which has no other reason than realising basic human capacities (Alkire and Black, 1997; Finnis and Grisez, 1981) and in turn motivates the actions of a person (Grisez, Boyle and Finnis, 1987). However, individuals will also 'realize and enjoy some benefit through the action' (Grisez et al, 1987: 104), suggesting that the outcome of fulfilling needs has both cognitive and emotional elements to it. An individual's purpose is to pursue the fulfilment of his or her needs, but it is ultimately his or her choice to do so (Finnis and Grisez, 1981) and wellbeing will result from that need satisfaction (Alkire and Black, 1997).

Finnis (2011; 1994) lists the basic goods as knowledge of reality; skilled performance in professional and leisure domains; health, vigour and safety; friendship with others; marriage (in which he includes having and raising children, relationship between partners); practical reasonableness (the alignment between feelings, judgement and behaviours); harmony with a source of reality (in which he includes meaning and value). These needs are equally important and do not occur in a hierarchy (Alkire, 2002; Grisez et al., 1987). The needs can be interpreted in different ways (depending on the identity and culture of the individual) and the ultimate behaviours and outcomes of the need choices are therefore not specified by Finnis's framework (Finnis, 2011). Alkire and Black (1997) argue that Finnis's theory is preferred to other need frameworks (e.g. those developed by Sen or Nusssbaum) as it is neither too prescriptive nor too vague. These needs represent the reasons for existing and are the underlying motivations for both good and bad acts. Despite this pre-moral stance, Finnis does discuss some controversial moral positions in some of his writing, but Alkire (2005) argues that his theory is amoral and cannot be used in this way (Alkire and Black, 1997).

Finnis (2011) argues that the choice of which needs to satisfy are made freely by individuals but just because they have the capacity to satisfy these needs does not mean that they should. For example, although acquiring knowledge is a need which

will fulfil a capacity to do so, this does not mean that one ought to pursue knowledge. However, the implications of these choices may constrain an individual's ability to satisfy other needs. The context in which the individual operates may also prevent or constrain need satisfaction. For example, Finnis (1994) indicates that need satisfaction cannot be separated out from a person's interactions with others, with choice of profession as one example which subsequently limits the satisfaction of other needs (Alkire and Black, 1997). Aspects such as enforced change or bureaucracy in the workplace may impact on the scope for choosing actions which satisfy the needs of an individual and needs necessarily require limited intervention by those in authority so that individuals are able to pursue their choice of needs (Finnis, 1994). Likewise, expectations and commitments in other parts of life may also constrain a person's ability to choose the needs he or she wishes to satisfy.

2.6.2 Organismic Need Satisfaction Models: Hierarchy of Needs

The needs put forward by Aristotelian philosophers such as Finnis are similar in many respects to organismic psychologists, including Maslow's Hierarchy of Needs. Maslow's concept of self-actualisation suggests a similar desire to realise inner capacities, supporting the Aristotelian concept that the satisfaction of various needs will lead to fulfilment (Koltko-Rivera, 2004). He provides a range of needs from basic physiological needs such as hunger and safety, to social needs such as love and esteem through to a self-actualised state, which is the point at which a person realises all his or her needs (Maslow, 1943, 1954/1987). An individual is argued to pursue needs as a result of two types of motivation, deficiency and growth (Maslow 1968/1999). Deficiency needs include safety and relationships which when not met can result in illness (Maslow, 1968/1999). These needs are argued to be satisfied before considering other needs which lead to more psychological or existential forms of wellbeing. Maslow (1954/1987) is very clear that attempting to obtain higher level goals to the detriment of deficiency needs (while possible) will result in deprivation of deficiency needs. His needs are similar to Finnis's, but also contain the need for esteem which considers how individuals view themselves, how they are considered by others and their ability to achieve (Maslow, 1954/1987).

There is little empirical support for a hierarchy of needs (Hall and Nougaim,1968; Wahba and Bridwell, 1976; Lawler and Suttle 1972), although this could be due to

the studies considering need satisfaction in the workplace only (Lester, 1990; Wahba and Bridwell, 1976; Roberts, 1972), rather than life as a whole. Other studies have since shown some support for a hierarchical model (Tay and Diener, 2011; Hagerty, 1999; Mathes, 1981), although Tay and Diener (2011) also found that satisfying higher order needs before basic needs had no adverse effect on wellbeing, so there may not be a justification for satisfying needs in any specific order. Despite the lack of empirical support for a hierarchical model of needs, Maslow's theory indicates the importance of considering a range of both physiological and psychological needs.

2.6.3 Organismic Need Satisfaction Models: Self-Determination Theory

While Maslow's Hierarchy of Needs does not have conclusive empirical support, Self-Determination Theory has been subjected to extensive research. Self-Determination Theory is a psychological need framework which consists of the realisation of personal skills and abilities (competence), the connections an individual has with others (relatedness) and control over one's actions (autonomy) (Ryan and Deci, 2000; Deci and Ryan, 2000). These needs are satisfied through goal setting behaviours which facilitate these needs (Sheldon et al, 2004; Kasser, 2002; Kasser and Ryan, 1996). The extent to which an individual chooses to satisfy these goals through his or her own volition (i.e. level of autonomy) determines the extent to which wellbeing is experienced (Ryan et al, 2008; Ryan and Deci, 2000).

The needs put forward by Self-Determination Theory are consistent with an Aristotelian view (Ryan et al, 2000) but while Deci and Ryan, (2006) attempt to link this theory to an Aristotelian standpoint, the original purpose was to increase psychological resources, not to achieve a fulfilled life. Despite this, Self-Determination Theory is robust (e.g. Kasser and Ryan, 1996; Ryan and Lynch, 1989) and need satisfaction is likely to lead to increased wellbeing and psychological resources (Sheldon et al, 2004). There is also more recent evidence that these needs can also be satisfied in the workplace (e.g. Van den Broeck et al., 2010; Vansteenkiste, Neyrinck, Niemiec, Soenens, De Witte, and Van den Broeck, 2007).

The needs of autonomy, relatedness and competence can be grouped into intrinsic goals (self-acceptance, relationships with others and with the community) and extrinsic goals (financial success, looks and attractiveness, and social recognition)

(Kasser, 2002) and intrinsic goals have been shown to be associated with wellbeing (Sheldon et al., 2004). The achievement of extrinsic goals is argued to have no effect on wellbeing and this lack of impact on wellbeing may be due to external goals taking less effort to achieve (Sheldon and Kasser, 1998). Later conceptualisations of Self-Determination Theory as an Aristotelian framework suggest that externally motivated actions are a result of satisfying secondary values, that is, values which are not directly related to basic needs (Ryan et al, 2008). Secondary values are considered to be deviant forms of basic needs. For example, seeking fame might be a distortion of the need for relationships with others.

Like Finnis (1994), Deci and Ryan (2000, 1990) argue that successful satisfaction of needs is contingent on the context in which the individual operates. Where the actions of individuals are determined by context and are not aligned with both the three basic needs and the personal desire of the individual, they may affect behaviour but will not be accompanied by a sense of fulfilment (Deci and Ryan, 1990). Alternatively, where there is an external expectation but this aligns with individual need satisfaction, the actions of the individual will be intrinsically motivated (Ryan et al., 2008; Deci and Ryan, 2000).

The limitation of Self-Determination Theory is that it may not consider the complete range of needs which individuals pursue to achieve a fulfilled life. While competence, relatedness and autonomy are shown to be important, Sheldon et al's (2001) study on a wider range of needs indicates that self-esteem and possibly security also have relevance in relation to wellbeing. In addition, both Finnis, (2011) and Maslow (1954/1987) would argue that there is more to a fulfilled life than just to be skilled and have good relationships with others (albeit they would still consider these to be important). Other needs such as health and having a belief system do not fit within these three needs (although later theorising designed to align Self-Determination Theory and Aristotelian philosophy does include health and security (see Ryan et al, 2008). However, using an incomplete list of needs risks an incomplete understanding of the associations with wellbeing and indicates the importance of testing a full range of needs in order to consider what needs individuals seek to satisfy.

2.6.4 Need Satisfaction in the Workplace

Need satisfaction theories provide a consideration of need satisfaction in a person's life as a whole. However, a case can also be made which shows that the work domain is important in satisfying needs and this domain has not been considered fully in relation to need satisfaction. Some studies have considered the effects of the work domain on happiness. For example, Warr (2007) has looked extensively at happiness in the workplace, suggesting a range of job characteristics which may help to satisfy needs and which appear to have links with broader measures of wellbeing (Warr and Clapperton, 2010). Warr and Clapperton (2010) also indicate that some job characteristics may decrease happiness if they are available in too much or too little quantities (e.g. social relationships, using skills or role ambiguity) suggesting that individuals should not necessarily strive to maximise the satisfaction of workplace needs.

Need satisfaction may facilitate engagement in the workplace which in turn will have benefits to employers and employees. Kahn (1990) discusses the concept of engagement which he defines as the extent to which an individual allows his or her 'personal self' to be present in the workplace. Engaged workers have been shown to be healthier and perform better (Bakker and Demerouti, 2008), suggesting that engagement is useful to foster. It takes energy to maintain a sense of self in relation to the demands of a role, and the satisfaction of needs such as role status and appreciation, and feelings of safety (including supportive relationships) can be indicators as to whether an individual will engage with his or her role (Kahn, 1990). Kahn (1990) suggests that an individual may be willing to expend energy to foster engagement because of the implications this has for satisfying basic needs such as status and relationships.

Self-determination needs have been recently explored in the workplace, in relation to measuring needs in the workplace (Van den Broeck et al., 2010; Bakker and Demerouti, 2007). Need satisfaction is argued to support optimal functioning in the workplace and helps to buffer employees from the negative effects of job demands (Bakker and Demerouti, 2007). Work needs can be shown to be associated with increased on-the-job performance as well as levels of vitality and anxiety (Baard et al 2004) and vigour (Van den Broek et al., 2010). When the workplace has a culture

which encourages needs such as support for others and health and security, this can lead to higher work satisfaction and engagement (Burke, Koyuncu, and Fiksenbaum, 2011).

However, these studies mainly consider need satisfaction in work and do not consider the impact on other domains of life. For example, the relationship between needs and wellbeing in the workplace has focused mainly on work domain measures such as job satisfaction, engagement and organisational commitment (Bakker and Bal, 2010; Van den Broeck et al, 2010; Bakker and Demerouti, 2007), with only limited consideration of life satisfaction (Van den Broeck et al, 2010). There is some support for an association between satisfied work needs and wellbeing, but the relationship is not well understood in relation to general measures of wellbeing and in terms of which needs should be satisfied in both the domains of work and life.

The absence of work can lower wellbeing (Warr and Clapperton, 2010; McKee-Ryan, Song, Wanberg and Kinicki, 2005), and one reason for this might be that work fulfils needs. Not working may mean that certain needs are no longer satisfied, such as health, identity and security needs (McKee-Ryan et al, 2005) or may interrupt the pursuit of need based goals (Sheldon, Abad, Ferguson, Gunz, Houser-Marko, Nichols, and Lyubomirsky, 2010b). In comparison, retirement does not appear to have an effect on subjective wellbeing (Luhmann, Hofmann, Eid and Lucas, 2012), suggesting that factors other than just the absence of work may affect the relationship between need satisfaction and wellbeing. The inconclusive nature of studies which consider the relationship between retirement and wellbeing (Warr, 2007) suggests that it is not clear whether there may be needs which are satisfied in work which cannot be satisfied in other domains.

2.6.5 Development of a Basic Needs Framework for Work and Life

Given the limitations of the need theories in relation to lack of empirical testing (Finnis, 2011), conclusive support for the model (Maslow, 1954/1987), or restrictions in the range of needs which are covered (Deci and Ryan, 2000), it is argued that a set of needs which provides a robust and comprehensive understanding of fulfilment is required to be developed. Finnis (2011) is considered to be a robust starting point, given the grounding of his framework in Aristotelian philosophy.

However, there are needs in Maslow's theory (namely esteem) and in Self–Determination Theory (namely autonomy) which do not appear in Finnis's needs and which require to be considered. This comparison provides a comprehensive overview of the salient needs which emerge from the three bodies of need satisfaction literature. Table 1 shows this comparison.

The range of need satisfaction theories and the limitations of these frameworks either in relation to Aristotelian philosophy, or having a lack of empirical data to confirm the needs have been shown. It is argued that without a strong philosophical basis, existing studies may not capture the full range of needs which individuals may seek to satisfy in both work and life. The need theories outlined in the previous sections suggest that there is a range of needs which may be important in relation to fulfilment and wellbeing. Each of these will be considered in turn, along with any associations they have with wellbeing. These needs will also be considered in relation to a teaching workplace in Chapter 3.

Knowledge
'Knowledge' is the first basic good which is considered to be important. Finnis (2011) indicates that this includes 'knowledge of reality' and an 'appreciation of beauty'. Beauty is excluded from consideration as it could be an expression of multiple needs such as knowledge (theoretical understanding of beauty), inner peace (development of inner beauty), family (desiring external beauty to attract others) and health (beautiful surroundings which enhance physical wellbeing). Knowledge is about knowing things for its own sake, rather than to facilitate other goals (Finnis, 2011) and seeking knowledge has been shown to be associated with higher levels of life satisfaction and meaning in life (Kashdan and Steger, 2007) as a result of the novelty which it creates (Kashdan and Silvia, 2009). Exploring the world is one aspect of the need for knowledge (Kashdan and Silvia, 2009).

Table 1 Comparison of need theories

Basic Need Framework for Work and Life	Hierarchy of Needs (Maslow, 1954/1987)	Self-Determination Theory (Deci and Ryan, 2000)	Basic Goods (Finnis, 2011, 1994)
Knowledge	Self-actualisation	Competence	Knowledge of Reality
Excellence and Mastery	Self-actualisation	Competence	Skilled performance
Health and Vigour	Physiological		Health, vigour and safety
Safety	Safety		Health, vigour and safety
Harmonious Relationships	Love	Relatedness	Friendship with others
Family	Love	Relatedness	Marriage
Inner Peace	Self-actualisation		Practical reasonableness
Belief System			Harmony with a source of reality
Status	Esteem		
Autonomy	Self-actualisation	Autonomy	

Harmonious Relationships

'Harmonious relationships' consider relationships with others (Finnis, 2011). This links to the concept of 'belonging' in Maslow's hierarchy (1954/1987) and social relations in Self-Determination Theory (Ryan and Deci, 2000). This need considers both personal relationships and wider interactions with the community in which a person is based. Community interactions with others have been shown to lead to life satisfaction (Sirgy, Widgery, Lee and Yu, 2010), suggesting that community may be an important facet of the relationship need. In addition, social exclusion has been shown to reduce meaning in life (Stillman, Baumeister, Lambert, Crescioni, DeWall, and Fincham, 2009). Dahlin, Kelly and Moen (2008) suggest that, while work relationships are not prominent enough to replace family connections, they could be viewed as being equally as important as (or might actually replace) neighbourly ties. This suggests that work-based relationships are potential areas where this need can be satisfied. However, they also indicate that the stronger family ties are, the weaker the relationships with colleagues become.

Health and Vigour

Health and vigour is the need to have both physical and psychological health and energy to live life. It is argued that Finnis's (2011) 'bodily life' should be split into health and vigour and then safety, in alignment with Maslow's needs of physiological health and safety. A similar approach has been taken in some national wellbeing studies (Diener and Ryan, 2011). Health is shown to link to life satisfaction (Garrido, Méndez and Abellán, 2013; Böckerman, Johansson and Saarni, 2011) and therefore appears to be an appropriate need to consider. There are studies which show an association between health and the need for security (Kasser and Sheldon, 2000) so a statistical analysis may indicate that they are part of a single need, in which case they will be combined for future studies.

Safety

Safety is the need to be protected from external threats. Maslow (1954/1987) suggests that a stable society and being in familiar surroundings, along with secure employment and financial savings is required for safety. While placing too much

emphasis on making money can be maladaptive (Kasser and Ryan, 1993), there is a suggestion that having enough money is related to wellbeing (Diener, Ng, Harter and Arora, 2010; Howell and Howell, 2008). The need for safety may also indicate the freedom to make mistakes while individuals are developing their skills. This is consistent with the literature on learning and psychological safety whereby if individuals believe they will not be punished or ostracised for making mistakes, they are more likely to be open to learning (Carmeli, Brueller and Dutton, 2009; Carmeli and Gittell, 2009; Edmondson, 1999).

Family

Marriage (as described by Finnis, 2011) requires to be widened to 'family' to incorporate being in a committed relationship with another person, along with raising children (if relevant). This moves away from traditional ideas of marriage which are supported by Finnis but may not be relevant to all individuals. This concept of family is more in line with emotional intimacy which is put forward by Ryff (1989) in relation to her dimension of positive relations and the 'to love and care, and to be loved and cared for' indicated by Deci and Ryan (2000: 231). This particular need focuses on intimate relationships, rather than the wider relationships with friends and community which is captured by harmonious relationships. These two needs are considered to be different by Finnis (2011).

Inner Peace

Inner peace consists of having coherent aims for life which align an individual's strengths and values to the choices they make in the world (Finnis, 2011). It is similar to the idea of authenticity and can be shown to be related to wellbeing (Sheldon, Ryan, Rawsthorne and Ilardi, 1997). Being consistent and true to one's self is a more adaptive approach than adjusting one's personality to suit the current situation or role (Ryan, LaGuardia and Rawsthorne, 2005). The need for inner peace in the workplace is supported by the concept of the 'protean career' which involves individuals who pursue their own values within their career (Briscoe, Hall and Frautschy 2006; Hall, 2004) and facilitates 'identity growth' (Hall and Chandler, 2005: 162). Inner peace may foster organisational commitment, which is concerned with the extent to which an employee identifies with the goals and values of the organisation and is related to workplace wellbeing (Fisher, 2010).

Belief System

Finnis (2011) uses the term 'religion' and 'higher power' and it is clear that he is referring to a God in the religious sense; religion has been shown to correlate with life satisfaction (Clark and Lelkes, 2005; Lelkes, 2006) and meaning in life (Steger and Frazier, 2005). Meaning specifically derived from belief in a higher power has been shown to act as a buffer to stressful events more effectively than experiencing 'personal' meaning in life (Mascaro and Rosen, 2006). However, it is argued that there are many potential sources of meaning which may not necessarily coincide with a belief in a higher being. Existentialism would be one example of this, whereby a person may derive meaning from difficulties in life (Frankl, 1958: 2004).

A belief system at work may manifest as a calling to that occupation in terms of being a 'personal destiny' (Harzer and Ruch, 2012), a life purpose (Hall and Chandler, 2005) and source of meaning outside of the individual (Dik and Duffy, 2009). Having a sense of calling is more than the realisation of inner values (Hall and Chandler, 2005). Individuals with a calling will pursue goals which satisfy personal needs (Hall and Chandler, 2005), but a calling also includes making a decision to do what a person feels should be done in addition to what he or she wants to do (Elangovan, Pinder and McLean, 2010). Individuals can be involved in more than one calling and these can change or develop over time (Higgins, 2005). However, this means that individuals may restrict their choice of workplace activities to those which are directly related to their calling and avoid other workplace tasks (Elangovan et al., 2010). Employees who have a sense of calling are more likely to be higher performers and have greater job satisfaction (Elangovan et al., 2010) and retention in the job (Lobene and Meade, 2013). They are also less likely to be absent from work (Wrzesniewski et al., 1997). A sense of calling will act as a buffer to the impact of organisational change (Hall and Chandler, 2005), and may affect life satisfaction, positive emotions and meaning (Dik, Eldridge, Steger and Duffy, 2012; Berg et al., 2010; Wrzeniewski et al., 1997), stress and depression (Treadgold, 1999).

Status

Status is about how others perceive a person and his or her level of achievement in relation to others. Maslow (1954/1987) views this need as both the level of efficacy a person has and his or her external reputation. The need for achievement is similar to

objective success which is defined by the speed of promotion and number of resources at a person's control (Gunz and Heslin, 2005), along with salary growth (Heslin, 2005). It is unclear how status might impact on wellbeing, although self-determination studies (Kasser, 2002) suggest that placing importance on this need may have an adverse effect on wellbeing.

Excellence and Mastery

Excellence and mastery are used to describe Finnis's (2011) assertion that excellence in work and play is important. This captures the idea of skill development and links to the personal growth dimension outlined by Ryff (1989). Self-Determination Theory argues that competence is one aspect of intrinsic motivation and that developing skills provides satisfaction and contributes to psychological health (Deci and Ryan, 2012). This need is also related to the sense of effort which is expected to accompany a fulfilled life (Steger et al, 2008a).

Autonomy (Freedom)

It is argued that the assumption that individuals are free to choose which needs to satisfy (Grisez et al., 1987) may not always be the case. It is therefore argued that autonomy is a need in itself (rather than an assumption of agency) in line with Self-Determination Theory (Ryan and Deci, 2000). It is possible that autonomy is captured by the inner peace need as expressing one's beliefs through decisions and behaviours. However, it is argued that inner peace reflects a sense of being able to understand and express inner values. On the other hand, autonomy is about having the feeling that one can put those values into action (Ryan and Deci, 2000).

2.6.6 Summary of the Basic Needs Required for Wellbeing

The previous sections argue that need satisfaction is an antecedent to wellbeing and that the satisfaction of needs in both the work and life domain therefore leads to greater wellbeing. The limitations of each of the three need theories have been examined and 10 needs proposed as the basic needs which individuals will seek to satisfy in work and life. The recent increased interest in Aristotelian philosophy has seen a focus on need satisfaction in the field of positive psychology, with multiple need theories available in the literature, including the Hierarchy of Needs (Maslow, 1954/1987) and Self-Determination Theory (Ryan and Deci, 2000). Neither of these

adequately reflect Aristotelian philosophy, either through empirical studies (in the case of the Hierarchy of Needs) or in terms of capturing all needs (in the case of Self-Determination Theory). Finnis's (2011) theory provides a more comprehensive framework of needs but this is currently untested.

Therefore, the first aim of the research is to identify the important needs which reflect a fulfilled life. Given that the study considers both the work and life domains, these needs require to be identified across both domains. The research takes as its starting point Finnis's (2011) need framework which is considered to represent an Aristotelian fulfilled life (Alkire and Black, 1997). However, it also includes the additional needs of status (Maslow, 1954/1987) and autonomy (Ryan and Deci, 2000; Deci and Ryan, 2000) which are contained in other need theories but are not included by Finnis. This is to ensure that the framework is as comprehensive as possible.

Without addressing how needs are satisfied across work and life domains at this stage (see section 2.7 for discussion), the following hypotheses are proposed:

H 1a: Satisfaction of the following needs influence wellbeing: 1) knowledge, 2) harmonious relationships, 3) excellence and mastery, 4) health and vigour, 5) safety, 6) family, 7) inner peace, 8) belief system, 9) status, 10) autonomy.

H 1b: The pattern of need satisfaction in work and life will conform to a ten factor model which corresponds to the needs of: 1) knowledge, 2) harmonious relationships, 3) excellence and mastery, 4) health and vigour, 5) safety, 6) family, 7) inner peace, 8) belief system, 9) status, 10) autonomy.

2.7 Need Satisfaction in the Domains of Work and Life

2.7.1 The Difference between Needs and Domains

There are various ways of dividing work and life. These include looking at work and family domains (Byron, 2005; Eby et al., 2005), work, relationships and leisure domains (Pinquart and Silbereisen, 2010), work and life (Keeney et al., 2013), with the most popular set being work and family (Eby et al., 2005). The work-family construct is problematic in that it makes the assumption that family relationships are central and disregards individual activities or friendships which could equally lead to

need satisfaction (Keeney et al., 2013; Fisher, Bulger and Smith, 2009; Marks and MacDermid, 1996). The literature in this area is also problematic in that needs are often confused with the domains themselves. For example, Sirgy et al (2010) use needs and domains interchangeably which makes it difficult to establish which aspects (needs or domains) are contributing to the studies.

This study makes a clear distinction between needs and domains. Needs are capabilities that individuals seek to realise (Finnis, 2011; Alkire, 2005) and domains are the areas of life in which those choices can be made. Given the impact that work can have on individuals (Greenhaus and Beutell, 1985), it is considered useful to look at need satisfaction in both work and life as need satisfaction studies which focus solely on the workplace may not sufficiently explain an individual's overall wellbeing and may not capture the impact of over-working. For this research, Eby et al's (2005) definition of the work domain is used. They indicate that work is 'paid employment but do not restrict this definition to full time employment' (Eby et al., 2005: 126). The life domain is considered to be all activities outside of paid employment.

2.7.2 Optimising Need Satisfaction in Work and Life Domains

Given that research shows that need satisfaction in both the work and life domains independently leads to wellbeing, it is useful to consider how an individual might satisfy needs in both domains. Need satisfaction across domains has had very limited consideration in the literature, but is argued to be a useful means of determining beneficial activities and the extent to which they should be carried out (Matuska and Christiansen, 2008). Optimising need satisfaction in work and life can be considered in four ways and the literature which justifies these approaches is outlined in this section. The first is how needs are satisfied across domains. If all ten needs are satisfied in the work domain, are the ten corresponding life needs also satisfied? Secondly, is each need satisfied equally? Has each need been given a similar rating of satisfaction, regardless of which domain it is satisfied in? Thirdly, to what extent do the work and life needs each contribute to wellbeing? Do all needs in work and life have the same positive impact on wellbeing? Finally, can need satisfaction in one domain negatively impact on need satisfaction in another domain? To consider these questions, the following research question is posed:

RQ 2: What orientation to work and life leads to optimum levels of need satisfaction?

Sections 2.7.2 and 2.7.3 consider the literature which defines and discusses the relevance of these variables to this study. Section 2.7.2 discusses what optimum need satisfaction is and the limited studies which address this. Section 2.7.3 defines orientation to work and life, arguing that orientation is about directing equal energy to both domains in order to satisfy needs.

There is little understanding of what a 'balance' across domains should look like (Sheldon et al, 2010a), with the literature providing various definitions. For example, studies have defined balance as the spread of activities in life which leads to the greatest wellbeing (Wagman, Hakansson and Bjorklund, 2011; Anaby, Backman and Jarus, 2010), the extent to which individuals participate in valued activities across domains (Wagman et al, 2011; Matuska, 2010), the time spent on each activity (Matuska, 2010; Sheldon et al, 2010a), or the importance of satisfying a range of needs equally (Matuska, 2010; Sheldon and Neimiec, 2006). The extent to which a range of needs is satisfied in both work and life to optimise wellbeing may therefore be a useful way of considering balance. Satisfying a range of activities is likely to be effective provided that these activities do not interfere with one another (Anaby et al., 2010).

There is evidence to suggest that satisfying a range of needs equally and to the same extent will lead to wellbeing (Sheldon and Niemiec, 2006). However, Wagman, Björklund, Håkansson, Jacobsson and Falkmer, (2011) indicate the lack of evidence which considers how the spread of activities across different domains contributes to life satisfaction. It is possible that satisfying needs in certain domains could contribute to wellbeing more than others. For example, Wagman et al. (2011) present findings which suggest that the life domain (in this case, leisure) has more importance than the work domain in relation to life satisfaction. In addition, Masuda and Sortheix's (2012) study suggests that life values may have greater salience in relation to wellbeing, but is limited by the use of intrinsic values in the family domain and extrinsic values in the work domain (e.g. being 'competent and successful' and getting 'ahead in my career'), which may have affected the results. A

consideration of similar needs in both the work and life domains is required in order to assess whether satisfaction of needs in one domain is more effective than another in optimising wellbeing.

This study argues that a satisfaction of needs across domains will lead to greater wellbeing. This is consistent with the study conducted by Milyavskaya et al. (2009) who look at satisfying needs for young people in relation to friendships, school life, home life and part-time work, showing that satisfying needs equally in each of these domains is positively associated with wellbeing. However, this study does not specifically consider the work domain in relation to life. Other studies which consider patterns of need satisfaction across domains similarly consider a range of domains or activities, rather than specifically comparing need satisfaction in work with need satisfaction in life (e.g. Sheldon et al., 2010a; Matuska, 2010). A focus on the debates on conflict and enrichment has meant that a consideration of how needs should be satisfied across the work and life domains has not been fully explored (Masuda and Sortheix, 2011). Shaffer, Joplin and Hsu (2011) in their review of the work-life balance literature, call for a model which assesses motivators in both work and life, and suggest further developing a need model which has recently been used in the work domain (e.g. Bakker and Demerouti, 2007) to encompass work and life.

However, the work and life domains do interact and studies in this area suggest that individuals can experience conflict (Eby et al., 2005) or interference (Keeney et al., 2013) and that conflict in either direction (work to life or life to work) affects wellbeing (Rice, Frone and McFarlin, 1992). Emotion can also transfer from one domain to another (Judge, Ilies and Scott, 2006; Williams, Suls, Alliger, Learner and Wan, 1991), potentially causing conflict. Crouter (1984) also demonstrates that life can spill into work in both a positive way (e.g. better understanding of others) but also a negative way (having to stay home when children are unwell), with the negative impact increased by having a family.

What research in the area of work-life conflict does not appear to consider is why diverting time away from work may negatively affect success, given studies which show that work-life initiatives will result in greater commitment and productivity (Darcy, McCarthy, Hill and Grady, 2012) and dedicating too many resources to the

work domain may negatively impact on an individual (Bakker et al., 2009). It is possible that patterns in need satisfaction in work and life may help to explain how to achieve fulfilment in both domains and avoid negative outcomes.

Work-life enrichment is also considered in the literature (Carlson, Kacmar, Wayne and Grzywacz, 2006; Greenhaus and Powell, 2006). Greenhaus and Powell (2006) argue that rather than viewing work and life as domains which are in conflict, they can also be seen to support one another. The enrichment of one domain by the other takes place through the social, psychological, physical and emotional capital of one domain transferring to the other domain and improves performance or wellbeing (Greenhaus and Powell, 2006; Carlson et al., 2006). Measures of enrichment focus on aspects such as development of skills, knowledge and behaviours, safety, and status (Carlson et al., 2006; Kirchmeyer 1992), suggesting that satisfying certain needs may have an enrichment effect.

2.7.3 Orientation to Work and Life

To be able to satisfy needs in the work and life domain, an individual must direct energy to these domains. Given that work and life can both conflict with and enrich each other, a greater understanding is required of how much effort an individual should apply to each domain in order to satisfy needs in a way that will lead to wellbeing. This raises the question as to how a person should split their attention between the work and/or life domains in order to achieve wellbeing and this section is concerned with discussing how effort should be orientated to work or life.

Aiming to equally allocate time spent in domains or on activities (preferred or actual) may not be sufficient to understand how to improve wellbeing or make adaptive choices. For example, although the work and life domains can conflict with each other (Frone, Russell and Cooper, 1992a; Frone, Russell and Cooper, 1992b), it is not clear at what point the work domain will start to affect employees (Scott et al, 1997). For example, working long hours will only become workaholism where work starts to interfere with other domains in life and the hours worked are more than is necessary to meet the requirements of the job (Scott et al., 1997) and will only lower wellbeing if the individual is not putting effort into working out of choice (Bonebright, Clay and Ankenmann, 2000). However, where an individual directs too

much effort to the work domain, they may experience burnout, causing feelings of lack of accomplishment (Friedman, 2000). This may be due to work preventing the satisfaction of needs, but the motivational variables which affect burnout are not well understood (Fernet, Guay, Senécal and Austin, 2012). Given that there is no clear picture in the literature of how a range of needs should be satisfied across work and life in order to optimise wellbeing, this is an important area of consideration.

There has been an emphasis on how to best distribute limited resources across domains (e.g. Frone, Russell and Cooper, 1992), even where the focus is on cross-domain enrichment (Carlson et al., 2006). This has led to a scarcity approach rather than an expansion approach which targets energy at the activities which maximise wellbeing (Marks, 1977). In line with the expansion approach, orientation to work or life is defined as the extent to which an individual directs his or her energies towards either the work or life domain. No assumption is made as to whether this is time or resource based but is simply the extent of the engagement in one domain or another (Marks and MacDermid, 1996). Mark and MacDermid (1996) suggest that full engagement in each domain will result in less cross-domain interference and lower levels of depression. There is also evidence to suggest that need satisfaction may be associated with domain engagement. For example, positive impacts on work-life interactions can be seen when an individual has high levels of social support (Ferguson, Carlson, Zivnuska and Whitten, 2012; Lu, Siu, Spector and Shi, 2009; Aryee and Tan, 2005; Ford, Heinen and Langkamer, 2007), suggesting that relationship needs will help to optimise orientation between work and life. It is argued that full engagement in both domains will mean that limited resources such as time and other psychological resources will be targeted at satisfaction of needs in each domain, rather than other extraneous activities.

Despite the time spent in each domain being considered as important to maintaining a balanced orientation between work and life (Sheldon et al., 2010a; Matuska and Christiensen, 2008; Greenhaus and Beutell, 1985), this may not be a useful way of assessing the impact of the job as individuals have varying preferences as to how much time they prefer to spend in certain domains (Keeney et al., 2013; Friedman and Greenhaus, 2000; Staples and Higgins, 1998). Despite other studies using a

combination of time spent and preferred time spent in life activities (Matuska, 2010; Sheldon et al., 2010a), an objective assessment of time spent in the workplace may not indicate whether there is conflict with other domains of life (Scott et al., 1997). In comparison, Marks and MacDermid (1996) argue that directing high levels of energy at both domains will prevent one from interfering with another and reduce depression. Too much focus on a single domain has been shown to decrease wellbeing (Clark, Michel, Zhdanova, Pui and Baltes, 2014, Taris, Schaufeli and Verhoeven, 2005; Bonebright et al., 2000), but the work-life enrichment literature also suggests that having a 'portfolio' of successful activities will protect individuals from any stressful areas of life by transferring the ensuing wellbeing across domains (Greenhaus and Powell, 2006). As a result, it is argued that individuals who successfully direct their energies in ways that do not cause conflict between the domains (Aryee, Srinivas and Tan, 2005; Senécal, Vallerand and Guay, 2001; Marks, 1977) will be able to maintain a balanced orientation to work and life.

It is therefore argued that to optimise wellbeing, a range of needs must be satisfied in both the work and life domains, with orientation equally split between work and life. Given the organisational and professional pressures which employees can undergo, work is a critical domain which may affect other life domains as well as overall wellbeing. There is a lack of understanding of how needs should be satisfied in work and life in order to optimise wellbeing and the following hypotheses are therefore posed:

H 2a: Needs are most satisfied when work-life orientation is in balance.

By balancing orientation to work and life, an individual will focus on each domain to the extent that best suits him or her (Keeney et al., 2013; Friedman and Greenhaus, 2000; Staples and Higgins, 1998). Given that individuals are motivated to pursue basic needs, energy can be targeted at the activities in each domain (Marks, 1977) which satisfy those needs. Engagement in both domains is likely to reduce cross-domain interference (Marks and MacDermid, 1996), meaning that the needs in each can be addressed.

H 2b: Wellbeing is optimised when there is a balanced work-life orientation.

H 2c: *Wellbeing is explained by the satisfaction of needs in work and life.*

Satisfying needs across domains is associated with wellbeing (Matuska, 2010; Sheldon et al., 2010a; Milyavskaya et al., 2009), as is full engagement in each domain (Mark and MacDermid, 1996). Despite a comprehensive body of literature on work-life interactions, there is no study which considers how needs should be satisfied across the work and life domains. However, the limited studies on need satisfaction across multiple domains suggest that where an individual is able to satisfy both work and life needs, they will optimise their wellbeing.

2.8 The Effects of Life and Career Stages on Need Satisfaction and Wellbeing

While it is argued that satisfying needs in both domains will optimise wellbeing, there are studies which suggest that life or career stage may have an effect on need satisfaction and wellbeing. The impact of age, gender and workplace role on need satisfaction can be unclear, depending on the measure or study conducted. This may in turn have an effect on wellbeing. As a result, a third general research question considers how these factors may influence work-life orientation, need satisfaction and the relationship between these variables:

RQ 3; *How do (a) promotion (b) tenure in role (c) age and (d) gender influence work-life orientation, need satisfaction, and wellbeing?*

Age has been shown to have a negative association with wellbeing (Dolan, Peasgood and White, 2008; Kunzmann et al, 2000). However, this association is not always seen in relation to life satisfaction scores (Pavot and Diener, 2009; Pavot, Diener, Colvin and Sandvik, 1991), and other studies show that life satisfaction increases with age (Vansteenkiste et al., 2007). Dolan et al. (2008) argue that gender is associated with wellbeing (with women experiencing greater wellbeing) but that these effects do not always remain when other aspects such as health or commitments to others are controlled for. There is also evidence to suggest that promoted roles which have higher levels of control increase life satisfaction (Van den Broeck et al., 2010), suggesting that career stage may impact on wellbeing. However, similar studies argue that the pursuit of external goals such as high salaries and control of others (which might encourage the pursuit of promotion) is likely to

result in lower wellbeing (Vansteenkiste et al., 2007; Kasser and Ryan, 1996). Job tenure has not been shown to impact on levels of career satisfaction (Ng et al., 2005), although there are some suggestions that lower tenure may be associated with dissatisfaction with the job in certain conditions (Bradley, 2007).

For need satisfaction, Aristotelian theory suggests that needs will be satisfied over time (Hughes, 2001), suggesting that different needs may be satisfied by individuals in different life stages. For example, employees who are starting a family may be more focused on the life domain, rather than satisfying work needs. This may reduce or enhance the capacity to fulfil needs in both work and life and can be seen in the work life conflict research which suggests that focusing on one domain may sacrifice success in the other (Chen et al., 2011; Crompton and Lyonette, 2011). However, need satisfaction has also been shown to reduce with age (Vansteenkiste et al, 2007). Women have been shown to have greater levels of need satisfaction than men in the workplace (Van den Broeck et al, 2008), although other studies have shown that women may experience slightly lower levels of relatedness than men, possibly due to receiving lower support in the workplace (Baard et al, 2004).

Low levels of need satisfaction can be predictive of moving to another role or organisation, with those who have greater role tenure experiencing higher levels of need satisfaction (de Lange, De Witte and Notelaers, 2008). Those who are content to remain in their roles are likely to be more engaged as a result of their work needs being satisfied (Schaufeli and Bakker, 2004). This suggests that the longer an individual is in a role, the more indicative this is of higher levels of need satisfaction. As a result it is useful to consider the effects of life or career stage, in relation to role, tenure, age and gender on need satisfaction in each domain and wellbeing.

Men are likely to be more focused on work (Cinamon and Rich, 2002), although over a third of men and women in that study viewed work and life as being equally important and balancing work and life domains can prove difficult for women (Crompton and Lyonette, 2011; Friedman and Greenhaus, 2000). Studies have also shown that directing more time to work and less to family will result in larger salaries and promotion (Chen, Veiga and Powell, 2011; Stroh and Brett, 1996), suggesting that those in promoted posts may have a greater orientation to work.

Keeney et al. (2013) indicate that work-life conflict can impact on intention to leave a job. This suggests that tenure in role is likely to be associated with less work-life conflict, suggesting that work-life orientation may be balanced or towards life. Finally, there is evidence to suggest that older employees may experience lower work stressors and less work-family conflict than younger workers (Matthews, Bulger and Barnes-Farrell, 2010). This suggests that older employees may direct less energy to the work domain.

The literature indicates that career stage (role level and tenure), age and gender are likely to have an effect on need satisfaction, wellbeing and work-life orientation. Holding a promoted post is likely to be indicative of an extrinsic focus on rewards such as salary and control over others which reduces wellbeing (Vansteenkiste et al., 2007; Kasser and Ryan, 1996), placing greater focus on the workplace. Therefore the following hypothesis is proposed:

H 3a; Holding a promoted post will be negatively associated with need satisfaction, wellbeing and positively associated with orientation to work.

Role tenure is likely to indicate higher levels of need satisfaction and wellbeing (Schaufeli and Bakker, 2004; Bradley, 2007) as individuals are likely to remain longer in roles which satisfy their needs. It is also likely that remaining in the job suggests less work-life conflict, suggesting reduced orientation to work (Keeney et al, 2013). The resulting hypothesis is posed:

H 3b; Longer tenure in role will be positively associated with need satisfaction, wellbeing and negatively associated with orientation to work.

It is likely that the focus on need satisfaction in different domains changes over time (Chen et al., 2011; Crompton and Lyonette, 2011) and studies in both need satisfaction and wellbeing suggest that these decrease with age (Vansteenkiste et al., 2007; Dolan et al., 2008). However, it is likely that reduced work stressors and work-life conflict (Matthews et al., 2010) mean that orientation to work is lower. Therefore the hypothesis is:

H 3c; Increasing age will be negatively associated with need satisfaction, wellbeing and orientation to work.

Need satisfaction is also likely to be greater for women (Van den Broeck et al., 2008), as is wellbeing (Dolan et al., 2008). However, women are less likely to be focused on work (Cinamon and Rich, 2002). As a result the following hypothesis is posed:

H 3d; Being female will be positively associated with need satisfaction and wellbeing and negatively associated with orientation to work.

2.9 Enablers and Challenges to Satisfying Needs in Work and Life

Finally, there may be contextual influences which enable or constrain an individual from satisfying his or her needs. The organisational enablers and challenges are considered in greater detail in Chapter 3 and indicate a range of factors which may impact on need satisfaction for teachers. However, there are also general studies in the need satisfaction literature which show that context must be taken into account. Both Finnis (2011) and Deci and Ryan (2000, 1991) indicate that need satisfaction is influenced by contextual factors which may constrain or facilitate the ability of an individual to carry out the necessary actions. Therefore, the final set of general research questions considered in this thesis is as follows.

RQ 4: *What are the most significant enablers and challenges in achieving / maintaining satisfied needs in work?*

RQ 5: *What are the most significant enablers and challenges in achieving / maintaining satisfied needs in life?*

The context in which an individual is situated affects his or her ability to satisfy needs (Deci and Ryan, 2012). For example, Sheldon et al (2010a) indicate that time stressors have a negative effect on satisfying a range of needs, although other stressors such as money, gender or appearance have little or no effect. Wagman et al (2011) also distinguish between short and more chronic effects on an individual's choice of activities, ranging from a one-off interruption to a specific job through to the support of others or the level of work or life demands a person has to deal with. Job demands may reduce engagement in work (Schaufeli, Taris and van Rhenen,

2008), and while need satisfaction may buffer the negative effects of job demands (Bakker and Demerouti, 2007), it may be possible for the pressure of the challenges to exceed the buffer.

From a workplace perspective, challenges (such as poor organisational processes) which prevent an individual from doing what they want to do may also affect wellbeing (Bonebright et al., 2000). Factors such as tight deadlines and monitoring of performance can also prevent the satisfaction of the autonomy need (Deci and Ryan, 2012) and some jobs may not have sufficient scope to realise an individual's calling (Berg et al, 2010) which could prevent the satisfaction of the belief system need. The inability to satisfy the need for a belief system in the workplace can encourage individuals to pursue unrealised callings (Berg et al, 2010), which if pursued outside the workplace could result in decreased commitment to the job. In comparison, the support of others and an employee focused culture will aid success in the work domain (Greenhaus, Ziegert and Allen, 2012; Lee, MacDermid, Williams, Buck and Leiba-O'Sullivan, 2002). Support in the life domain is more likely to result in positive career outcomes (Chen et al., 2011; Stroh and Brett, 1996) and less interference between the work and life domains (Greenhaus et al., 2012).

From a life perspective, support from friends is likely to enhance need satisfaction (Deci, La Guardia, Moller, Scheiner and Ryan, 2006), as is the support of life partners (Patrick, Knee, Canevello and Lonsbary, 2007). Both these studies also consider the reciprocal aspects of partners in relation to giving support as well as receiving it. The extent to which the context in which a person lives gives him or her opportunities to satisfy needs is also important (Deci and Ryan, 2012; Finnis, 2011) and it may be possible that individuals will use different domains to satisfy different needs. Need satisfaction can be affected by contextual enablers or challenges (Deci and Ryan, 2012) and these require to be understood in relation to the framework of needs proposed in this study.

2.10 Summary of Conceptual Framework, Research Questions and Hypotheses
The literature review has made the case that need satisfaction is an antecedent to wellbeing and there is an argument for directing equal amounts of energy to both

work and life (work-life orientation) to satisfy needs in both domains. Both work-life orientation and need satisfaction may be affected by enablers and challenges in the work and life domains, along with the career and life stage of the individual. Figure 3 outlines the conceptual model and indicates which hypothesis will address each part. Table 2 contains a summary of each research question and corresponding hypotheses.
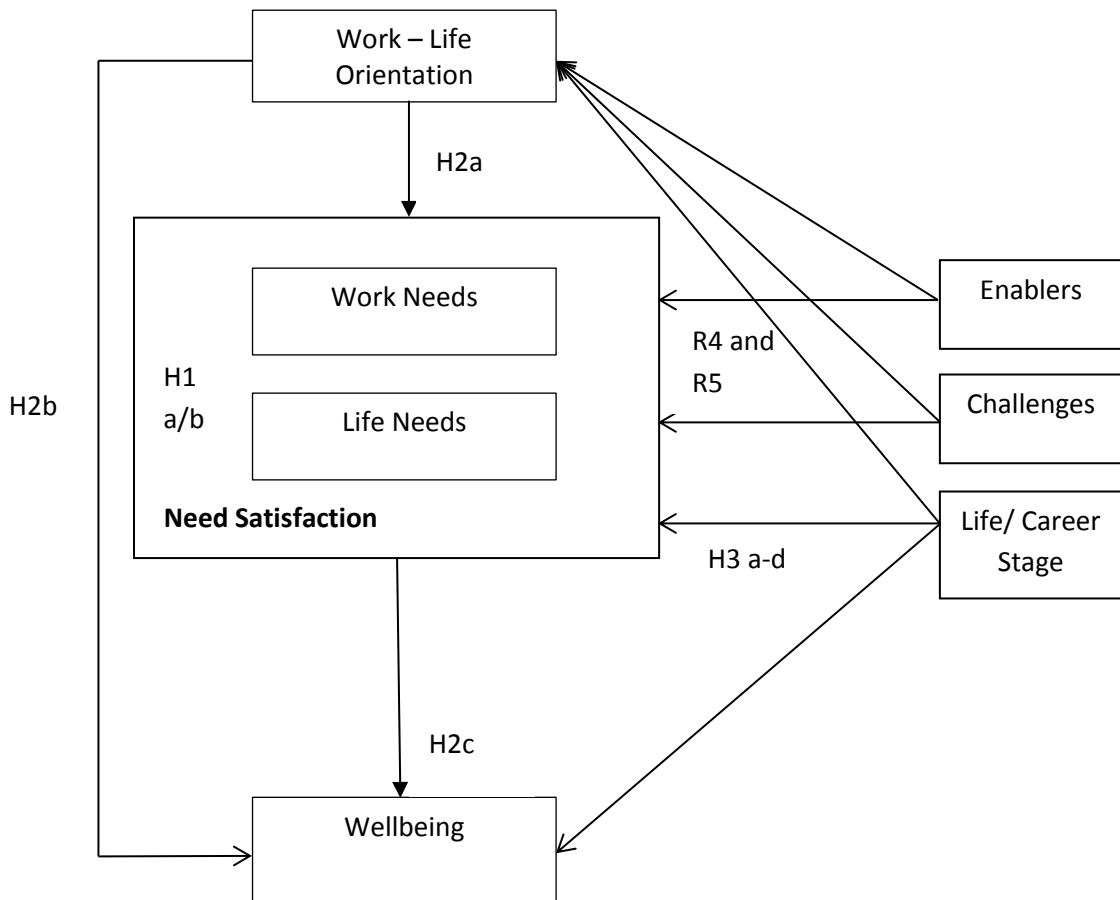
Figure 3 Conceptual model

Table 2 Summary of Research Questions and Hypotheses

Research Question	Hypothesis
RQ 1; What basic needs must be satisfied in both work and life domains for wellbeing?	**H 1a:** Satisfaction of the following needs influence wellbeing: 1) knowledge, 2) harmonious relationships, 3) excellence and mastery, 4) health and vigour, 5) safety, 6) family, 7) inner peace, 8) belief system, 9) status, 10) autonomy. **H 1b:** The pattern of need satisfaction in work and life will conform to a ten factor model which corresponds to the needs of: 1) knowledge, 2) harmonious relationships, 3) excellence and mastery, 4) health and vigour, 5) safety, 6) family, 7) inner peace, 8) belief system, 9) status, 10) autonomy.
RQ 2: What orientation to work and life leads to optimum levels of need satisfaction?	**H 2a:** Needs are most satisfied when work-life orientation is in balance. **H 2b:** Wellbeing is optimised when there is a balanced work-life orientation. **H 2c:** Wellbeing is explained by the satisfaction of needs in work and life.

Table 2 Continued.

Research Question	Hypothesis
RQ 3; How do (a) promotion (b) tenure in role (c) age and (d) gender influence work-life orientation, need satisfaction, and wellbeing?	**H 3a;** Holding a promoted post will be negatively associated with need satisfaction, wellbeing and positively associated with orientation to work. **H 3b;** Longer tenure in role will be positively associated with need satisfaction, wellbeing and negatively associated with orientation to work. **H 3c;** Increasing age will be negatively associated with need satisfaction, wellbeing and orientation to work. **H 3d;** Being female will be positively associated with need satisfaction and wellbeing and negatively associated with orientation to work.
RQ 4: What are the most significant enablers and challenges in achieving / maintaining satisfied needs in work?	
RQ 5: What are the most significant enablers and challenges in achieving / maintaining satisfied needs in life?	

2.11 Chapter Summary

This chapter provides an overview of what wellbeing is and has put forward an argument for considering affect, life satisfaction and meaning in life as the most appropriate way of assessing wellbeing. It shows that these global measures capture aspects such as job satisfaction while also providing a more holistic view of the wellbeing of an individual. In addition, it has shown that wellbeing can be used as a proxy for performance and that individuals who have high levels of wellbeing are more likely to perform well in their job. It argues that need satisfaction is an antecedent of wellbeing (Ryan and Huta, 2009) and that, in order to optimise wellbeing, an individual has to satisfy needs in both the work and life domain. This requires equal amounts of energy to be directed at each domain, to achieve a balanced work-life orientation. In addition, contextual factors in work and life may enable or challenge an individual's ability to satisfy needs in either domain. How needs should be satisfied across the work and life domains to optimise wellbeing has not been investigated and how they are satisfied in these domains is required to be better understood. Current need theories are also argued to be insufficient to represent the full range of needs which an individual may seek to fulfil, as conceptualised by Aristotle. In addition, it is important to understand the enablers and challenges which could affect need satisfaction.

The chapter proposes a set of research questions and hypotheses to address these limitations and to explore the model which has been proposed. It has established a framework of needs based on a comparison of three need theories (Finnis, 2011; Ryan and Deci, 2000; Maslow, 1954/1987), designed to assess the extent to which an individual lives a fulfilled life. The proposed model is investigated in the remainder of this thesis. The understanding gained from the study will benefit organisations who wish to design employee wellbeing policies or interventions which encourage commitment and performance or employees who wish to make choices to enhance their wellbeing.

Chapter 3 provides an analysis of the teaching literature to establish support for the proposed model in relation to this particular group of employees. The model being investigated in this thesis has been built using general theories and literature.

However, given that it was tested on a group of primary teachers, it is important to show the relevance of this model to this group. Chapter three provides a review of the extant teaching literature to argue that teachers are an appropriate group to use to investigate this model.

Chapter 3
Wellbeing and Need Satisfaction in a Teaching Context

3.1 Introduction

Chapter 2 has argued that need satisfaction is an antecedent to wellbeing and puts forward a justification for satisfying a range of needs in both work and life. While there is little understanding of how these needs should be satisfied in work and life, Chapter 2 draws on the small number of available studies on satisfying needs across work and life, along with more general work-life theories. This is to establish the argument that by satisfying needs in both work and life, wellbeing can be optimised. In addition, an argument is put forward which suggests that there may be enablers or challenges to need satisfaction. Demographic factors such as age or gender may also have an effect on a person's ability to satisfy needs.

Chapter 3 considers the arguments put forward in Chapter 2 in relation to teaching professionals. It demonstrates that teaching is a stressful profession and that there are benefits to considering wellbeing in relation to this population. It then considers the importance of being a motivated teacher and outlines a rationale for using need satisfaction as a method of motivation, with each need identified in Chapter 2 being considered in relation to the teaching literature. Chapter 3 then explores how work and life interact for teachers, considering conflict, enrichment and also how teachers orientate their energy to work and life. Commitment to the job is argued to encourage an orientation to work among teachers as they strive to do their best on the job, despite having limited time and resources. This chapter then considers the contextual influences which may support or prevent teachers from satisfying their needs. It focuses on the work domain and first considers the general contextual impacts on teachers before specifically considering the changes and context of Scottish teaching. This chapter seeks to contextualise the conceptual framework proposed in Chapter 2.

3.2 Wellbeing in Teaching

The measures of wellbeing have been argued to consist of subjective wellbeing (affect and life satisfaction) and meaning in life. Job specific measures are a limited way of understanding individuals' wellbeing (Rode, 2004; Judge and Watanabe, 1993) and general wellbeing measures are expected to be sufficient to understand wellbeing in both the work and life domains. The teaching literature indicates that teachers will experience high levels of positive and negative emotions (Day et al., 2007; Nias, 1989) and varying levels of meaning (Kennedy and Doherty, 2012; Keltchermans, 2005) and life satisfaction (Nias, 1989). However, much of the literature on wellbeing in the teaching profession focuses on job specific measures and it is argued that a wider consideration of wellbeing for teachers is required. Associations have been found between wellbeing and performance in the general literature (Wright, 2010; Wright and Cropanzano, 2000), and literature on teacher effectiveness and its relationship with wellbeing is therefore considered.

The extant literature suggests that it is important to consider the wellbeing of teachers. Teacher stress involves the negative emotions which are experienced as a result of doing the job (Kyriacou, 2001, 1989) and teaching can be a stressful profession due to the conflicting demands it places on individuals and the low levels of autonomy in relation to a standardized curriculum and requirements of the job (Smylie, 1999). Stress in the teaching profession is related to the desire to meet the demands of the job, and the extent to which teachers are able to meet these requirements (Kyriacou, 1989) can be attributed to either the individual or the context in which they work (Cole, 1989). For example, teachers may ignore their own needs in favour of their pupils, which may then contribute to their stress (Nias, 1999). Other stressors include pupil behaviour, lack of resources, relationships with others, change, and working long hours (Rudow, 1999) as well as the perceived low status of the job (Kyriacou, 1989). Stress has been shown to have an effect on illness and intention to leave the profession, along with poorer relationships with others and lower performance as well as transferring into other parts of life (Rudow, 1999). These negative effects suggest that reducing stress (by increasing wellbeing) will have organisational benefits in relation to retention and performance.

There is evidence that teachers' intense emotions can lead to extreme situations such as burnout (McCormick and Barnett, 2011) as a consequence of extreme stress (Esteve, 1989). Burnout results from long term psychological fatigue in addition to the emotional strain of stress (Rudow, 1999; Kyriacou, 1989). It is a result of the demands of the job exceeding the resources a teacher has and prevents success in the job, causing the teacher to withdraw effort (Esteve, 1989) and commitment (Kyriacou, 1989). The high expectations where teachers are expected to fulfil multiple roles such as a 'social worker, a baby-sitter, a parent and a policewoman' (Dunham, 1992: 24), causes role conflict and increases the demands of the job.

Fernet et al (2012) note that teachers are particularly prone to burnout, suggesting that there are factors in the job itself which may place particular demands on teaching professionals. However they also show that the satisfaction of the needs of autonomy, relations and competency helps to provide a buffer from burnout and combats the pressures of the job. Other studies suggest that need satisfaction leads to engagement but that this may increase the energy directed at the work domain and does not necessarily reduce burnout (Timms et al, 2012), suggesting that there may be an optimum level of need satisfaction.

Given the propensity of teaching professionals to experience stress in their job and the dangers of this leading to a state of burnout, it is important to understand and improve their wellbeing. High engagement along with low burnout is likely to result in teachers who are empowered (Timms et al., 2012) and this may impact on performance (Smylie, 1999). In addition, teachers, as with any individual, should not be content with merely eradicating stress, but should also be concerned with optimising their wellbeing as advocated by proponents of positive psychology (e.g. Seligman and Csikszentmihalyi, 2000).

3.2.1 Emotions in Teaching

Affect has been argued to be a useful construct of wellbeing to consider. This is reflected in the extensive body of literature which focuses on teacher emotions. This literature indicates the extent to which emotions can impact on teachers within their work (e.g. Kelchtermans, 2011, 2005, 1996; Brackett, Palomera, Mojsa-Kaja, Reyes and Salovey, 2010; Day, 2002; Woods and Jeffrey, 2002). Teachers experience

intense emotions (Day et al., 2007; Nias, 1989) which may be as a result of the unique challenges which their profession creates. Teachers can experience negative emotions even where they are engaged with the job, although a strong relationship with pupils may buffer them from extreme emotions (Klassen, Perry and Frenzel, 2012). Emotions such as 'anger, rage, aggressivity, irritation, frustration, disappointment, depressivity and anxiety' are cited as some of the emotions which are felt by stressed teachers (Rudow, 1999: 53).

However, teacher performance is argued to be associated with their emotions (Zembylas, 2011) and the positive emotional connections they have with their pupils have been shown to buffer teachers from the strains of the job (Oplatka, 2005a). Nias (1996) highlights the extent to which teachers feel emotions, and indicates that this is due to the relationships they are required to develop and from the level of personal investment that they put into their roles. She raises the distinction between the love that teachers feel versus the anger which can result from the demands being placed on them (Nias, 1989). For example, positive emotions are often experienced in relation to the caring feelings which teachers experience for the children they teach (Sutton and Wheatley, 2003; Chan, 2009). While there are studies which suggest the importance of affect in teaching, Zembylas (2011) indicates that more research in this field is required.

Teachers are required to make an emotional investment in order to be effective, and personal circumstances in addition to workplace pressures can place pressure on the availability of emotional resources (Day and Gu, 2007). However, different people will cope with the same situation in different ways and a certain level of stress can be a positive thing in relation to enhancing learning and motivation to succeed, with some teachers actively seeking new (and therefore stressful) situations (Smylie, 1999). This suggests that a certain level of negative emotions may also be useful to experience.

3.2.2 Life and Job Satisfaction in Teaching

Life satisfaction is the second dimension of subjective wellbeing and has been argued to be a necessary dimension in addition to affect. It is also argued to be a more appropriate measure than job satisfaction as work does not take place in

isolation to other domains of life and job satisfaction is therefore unlikely to give a complete picture of overall satisfaction a person has in life (Rode, 2004; Judge and Watanabe, 1993). Despite this argument, the teaching literature tends to focus on job-specific satisfaction. For example, job satisfaction in teaching has been shown to lead to greater levels of commitment (Fresko, Kfir and Namer, 1997). However, job satisfaction is more generally argued to have lower associations with performance because it does not take into account all aspects of wellbeing (Wright and Cropanzano, 2000) and is unlikely to be the best measure of wellbeing. Given that the measure of life satisfaction is likely to be associated with job satisfaction (Judge and Watanabe 1993; Tait et al., 1989), the job satisfaction in teaching literature is useful to review.

Job satisfaction is associated with the extent to which a teacher has time to complete his or her work (Freeman, 1989) and is able to adequately prepare due to high workloads (Liu and Ramsey, 2008), suggesting that the pressures of the job may have an effect on job satisfaction. One way of assessing job satisfaction may be whether or not a teacher considers leaving the profession. For example, 58 percent of teachers in a study by Huberman (1993) indicated that they had not considered leaving the profession, suggesting that they were satisfied with their job. His study suggests that reasons for job satisfaction could be the enjoyment that teachers get from the job, but also indicates that it could arise from teachers finding ways of buffering themselves from the strains of the job (e.g. participating in other interests, working part time, making their own changes to move school or to another part of the school) or from the pay and security that the job can offer, suggesting varying causes of job satisfaction.

Huberman (1993) indicates that between seven and fifteen years into a teacher's career is the point at which teachers are most likely to be dissatisfied with their job. The reasons can involve pursuit of interests in other work or domains of life, the need for increased challenges, negative changes to the job, burnout and tiredness. Teaching is a profession where individuals have seen others do the job and are able to decide whether they are likely to gain satisfaction from doing this kind of work (Fresko et al., 1997). However, the danger of this is that the ability to do the job prior

to entering teaching may be overestimated (Klassen and Chiu, 2011). Low salaries can reduce job satisfaction (Liu and Ramsey, 2008) and teachers who move school have also been shown to be less satisfied with their job, although they will be satisfied with their levels of professional development (Liu and Ramsey, 2008). Supportive leadership in the school and interaction with students are key determinants of job satisfaction (Liu and Ramsey, 2008) and satisfaction may also be enhanced through clearer expectations on teachers (Dunham, 1992) which can help to reduce the number of activities which require to be carried out.

Just as teachers have been shown to experience high levels of both positive and negative emotions, Nias (1989) highlights a similar paradox whereby teachers can experience both satisfaction and dissatisfaction with their role. She attributes the causes of dissatisfaction to lack of resources, lack of appreciation by society and not being able to achieve promotion or, in some cases, find permanent jobs. This paradox does not appear to be supported by the general life satisfaction literature where high and low satisfaction is not experienced simultaneously, although Nias's (1989) results may be capturing the potential for teachers to be both engaged and burnt out simultaneously (Timms et al., 2012). The effects of burnout on others parts of life may not be captured by job satisfaction as this measure may be high for highly engaged but also burnt-out teachers, suggesting that life satisfaction may be a more holistic measure.

3.2.3 Meaning in Life and Work in Teaching

Meaning in life is how significant a person considers his or her life to be (Steger and Frazier, 2005) and is argued to be an important third dimension of wellbeing. Meaningful work is the perceived meaning an employee gains from work, but also the positive way in which it affects others (Steger, Dik and Duffy, 2012). It is proposed that the global measure of meaning (in this case, meaning in life) is more appropriate than the work-based measure.

The teaching literature indicates that teaching provides meaning for teachers. Kennedy and Doherty (2012) discuss the altruistic nature of teaching, where material rewards are incidental, which in turn frees teachers from the control of extrinsic reward systems. There appears to be a desire for teachers to create work which is

personally meaningful (Day, 2002) despite the additional emotional pressures that this risks, particularly in being unable to separate the personal from professional in scrutiny such as inspections (Woods and Jeffrey, 2002). Despite the challenges of the job, teaching as a profession may have elements which can give teachers meaning in life (Marshall, 2009) and benefit overall wellbeing (Treadgold, 1999; Wrzesniewski et al., 1997). The importance of aligning personal values with the job itself provides teachers with meaning, although the implementation of change can negatively impact on this (Keltchermans, 2005). Changes to the profession might affect how teachers view their work due to the challenges that the changes make to their existing practices, affecting the meaning they take from their job (Day, 2011; Day et al., 2006b).

3.2.4 Wellbeing and Teacher Effectiveness

The general literature suggests that there is an association between wellbeing and performance in the workplace (Wright, 2010; Wright and Cropanzano, 2000). The literature on performance of teachers is extensive and is considered in relation to their effectiveness in their role, particularly in the classroom. Cambell, Kyriakides, Muijs and Robinson (2003: 354) define teacher effectiveness as 'the power to realise socially valued objectives agreed for teachers' work, especially, but not exclusively, the work concerned with enabling pupils to learn.' Performance in the teaching profession can be defined as providing effective environments and learning for pupils (Kyriakides, 2006) which can include knowledge of the topics being taught (Cheung Lai-man et al., 2008), as well as how to teach them, and personal beliefs about capability (Campbell et al., 2003). It can also include the ability to increase pupils' knowledge, efforts and social interactions with others (Frenzel, Goetz, Stephens and Jacob, 2009).

Teacher effectiveness studies are limited in that they are unable to show how a teacher can improve his or her performance, despite being able to show what a good teacher looks like (Day et al., 2006; Campbell et al., 2003), due to the focus of studies on ensuring teachers have average rather than excellent abilities. In addition, encouraging specific behaviours is likely to be too generic for all classroom activities as different situations will call for different behaviours (Campbell et al., 2003; Gipps, McCallum and Brown, 1999). This suggests that any interventions which might

improve effectiveness would have to suit the range of activities which a teacher might be involved in and encourage a flexible approach to job behaviours.

While the general performance literature suggests that high levels of wellbeing are likely to predict performance (e.g. Cropanzano and Wright, 2001), some teaching research indicates a circular relationship whereby teacher success will increase wellbeing due to the emotions which arise from achieving goals. However positive emotions are also likely to increase effectiveness due to the enthusiasm and support which result from the emotions (Frenzel et al., 2009). Brackett et al. (2010) indicate that being able to control emotions will lead to greater personal perceptions of effectiveness. Poor levels of wellbeing have also been shown to affect teachers' performance. Stress may result in poorer performance and lower confidence (Dunham, 1992) and effectiveness may be affected by burnout by decreasing a teacher's engagement with the job (Esteve, 1989). These links between teaching effectiveness and wellbeing suggest that, where performance is not directly assessed, high incidents of wellbeing may be indicative of effectiveness.

While teachers can be susceptible to high levels of negative emotion, which can result in stress and burnout, they can also experience positive emotion, satisfaction and meaning from the work that they do. The teaching literature focuses on job related measures such as job satisfaction, but there are arguments for using wider measures of wellbeing which incorporate personal as well as professional wellbeing (Day and Gu, 2009). These measures of wellbeing may, in turn, give an insight into teacher effectiveness which is essential in providing high levels of quality teaching and ensuring the educational needs of children are met. However, the literature suggests that outlining what an effective teacher looks like is problematic in that different situations call for different teaching styles. It is argued that a focus on wellbeing will create the conditions for teacher effectiveness and looking at the antecedents to wellbeing may help teachers to find strategies which buffer them from the stresses of the job, allowing them to better focus on their teaching practice.

3.3 Need Satisfaction in Teaching

3.3.1 Motivation, Engagement and Commitment in Teaching: Importance of Need Satisfaction

The needs which individuals seek to satisfy are argued to be an antecedent of wellbeing. By satisfying needs, wellbeing is more likely to be optimised; needs motivate action, resulting in greater wellbeing. One argument which stems from the teaching literature is that the role of teaching has constituent characteristics which allow teachers to satisfy needs in the work domain. For example, Huberman and Grounauer (1993) indicate that motivations can range from extrinsic aspects such as salary to intrinsic reasons such as the rewards they get from working with pupils and interest in the topics they teach. Motivation is also shown to be associated with teacher effectiveness and success, possibly due to the wellbeing that need satisfaction encourages (Holzberger, Philipp and Kunter, 2014; Klassen et al., 2012).

Richardson and Watt (2006) identify three types of motivation from the teaching literature, 'social utilitarian' (developing and working with children, ensuring equality, and giving to society), 'personal utilitarian' (secure job, family, being able to move to different locations) and intrinsic motivation. Fulfilling these requires expertise and energy to do the job, but it is argued that the intrinsic benefits compensate for this, along with rewards such as salary and status (Watt and Richardson, 2007). Teachers enter the profession because they think they will be good at it, it fulfils their values, contributes to society, and allows them to mould and work with children (Richardson and Watt, 2006), indicating that the job may have characteristics which can provide opportunities for need satisfaction. Where the pressures of the profession interfere with these motivations, there is more of a risk of attrition (Richardson and Watt, 2006). A job which provides scope to motivate teachers may benefit schools in terms of retaining experienced employees.

Avoiding work-life interference and job security are reported as being less important to teachers but still emerge as having salience (Richardson and Watt, 2006). This is despite job security more widely being seen as an important factor in attracting people to the job (Watt and Richardson, 2007). This suggests that the motivational dimensions of the job will be of importance but may also change over time

(Huberman and Grounauer, 1993). However, there is an indication that satisfying needs may both attract and retain teachers. Needs are likely to motivate the choices which teachers might make (Watt and Richardson, 2007), presumably including the choice to stay in the profession and in relation to the actions which are taken in the role.

The associations between need satisfaction and retention in the job suggest that need satisfaction may enhance commitment. Commitment is the dedication which teachers have to the job (Nias, 1989). The more engaged teachers are in their job, the greater their level of commitment (Hakanen et al, 2006) and teachers who have high commitment to the job have lower levels of stress and vice versa (Jepson and Forrest, 2010). Commitment may be strengthened where teachers' values match those of their job (Woods and Jeffrey, 2002) and they have a sense of calling (Bullough and Hall-Kenyon, 2012). It can also fluctuate over time, depending on the life stage of individuals and the contextual factors which act on them (Day, 2008).

3.3.2 Basic Needs Framework in the Teaching Profession

The needs which individuals seek to satisfy can be one way to understand the motivations of teaching professionals. Chapter 2 argues that existing need satisfaction theories are not sufficient to provide a full understanding of the needs which may be satisfied in work and life and considers the needs from three theories. There are a small number of studies which look at Self-Determination needs in relation to teachers (Klassen et al., 2012; Bakker and Bal, 2010), which suggests that for autonomy, relatedness and competence at least, there is evidence that need satisfaction is relevant to the teaching profession. However, as indicated in Chapter 2, these three needs may not be extensive enough to capture a complete view of the needs that individuals may benefit from satisfying. While there are few studies which consider a limited range of needs, there are others which provide evidence that each individual need is likely to be of importance to teachers. In the previous chapter, it is proposed that there are 10 basic needs: knowledge, harmonious relationships, health and vigour, safety, family, inner peace, belief system, status, excellence and mastery and autonomy (Hypothesis 1a and 1b) and it is important to consider these in relation

to the teaching profession. The following section provides extant teacher literature to support these hypotheses.

Knowledge

Knowledge is about knowing things for its own sake and this can include knowledge of the job and profession, as well as the wider world. The practical nature of teaching may discourage the fulfilment of this need and there is a tendency towards local learning and personal knowledge in preference to formal education programmes (Korthagen and Kessels, 1999), with classroom learning being considered most useful by teachers (Smylie, 1989). If teachers are unable to see the relevance of theoretical knowledge, they may be less likely to retain it or they may not have the time to implement it in their jobs (Korthagen and Kessels, 1999). In addition, theoretical knowledge will not always equip a teacher to do the job (Friedman, 2000), although Ballet, Kelchtermans and Loughran (2006) argue that a teacher's knowledge impacts on their effectiveness on the job. Given the rapid pace of change and general lack of time which teachers experience (Day et al., 2007), taking time to be curious and obtain knowledge for its own sake, may not be a need which is easily satisfied in the workplace.

Harmonious Relationships

Harmonious relationships are about relationships with others and these can include collegiate relationships and friendships with colleagues, relationships with parents, pupils and the wider school community. Professional relationships are viewed as being important in teaching, particularly in relation to collegiality (Macdonald, 2004) and relationships with pupils (Day et al., 2006b). Kelchtermans (1993) refers to the concept of the 'critical person' who can either help or prevent a teacher in their role, with relationships with others (colleagues, managers, peers) viewed as potential points of challenge for teachers, partly though differing views that arise on how schools should operate and the negotiations which take place to agree goals and approaches for teaching (Kelchtermans, 2011, 1996).

Relationships with pupils are more important in relation to teachers' wellbeing than relationships with colleagues (Klassen et al, 2012), and are considered to be a fundamental part of the teacher identity (Day et al., 2006b). Relationships with

students provide teachers with meaning and intrinsic satisfaction (Spilt, Koomen and Thijs, 2011) and a sense of efficacy (Day et al., 2007). Hargreaves (2000) suggests that the emotional interactions between teachers and their pupils are used to develop others, in addition to building relationships for their own sake. The teaching literature considers relationships in relation to the care that teachers feel for the students they teach (Bullough and Hall-Kenyon, 2012; Day, Elliot and Kington, 2005; Sutton and Wheatley, 2003), suggesting that the need for relationships may be associated with the emotion of care. The importance of relationships is also associated with creating an effective learning environment and the self-efficacy of teachers to build the environment and to perform well in their job (Ketchtermans, 2011). What is unclear is whether there is a need to build relationships with pupils for the sake of having good relationships, or whether this expresses a need to develop others, with pupil relationships being a means of achieving this.

Health and Vigour

Health and vigour is the need for physical and psychological health, as well as having energy to live life. Teachers' health is discussed in relation to burnout caused by working in a high stress occupation (Woods et al., 1997), which is argued to stem from the commitment which teachers have to their job (Timms et al., 2012), from high expectations of what it means to be a good teacher (Friedman, 2000) and from not performing in relation to those expectations (McCormick and Barnett, 2011). The health of teachers can be further affected by teaching in a challenging school (Day et al., 2007) and being constrained by external expectations (Fernet, Guay, Senécal and Austin, 2012). Vigour is considered to be a dimension of engagement which is associated with higher levels of performance for teachers (Bakker and Bal, 2010).

Safety

Safety is the need to be protected from external threats and can include the protection of financial security as well as having courage to do the job. The need for safety can be satisfied through the trust which is built with both children and colleagues (Woods and Jeffrey, 2002) and a safe learning environment is considered important in Scottish education (Education Scotland, 2010b; Education Scotland, n.d.). Macdonald (2004) also highlights an example of development (in this case classroom observation) where the teachers are opposed to the intervention and also

uncomfortable with the practice because they feel unsafe. This could be one example of development in a perceived unsafe environment which would not be valued by teachers. Salary is also considered a motivator for teachers (Watt and Richardson, 2007; Huberman and Grounauer, 1993) and this, in addition to the security of the job (Parry, 2012), may help to fulfil the need for security.

Family

Family includes the relationship with a significant partner as well as raising children. From a work perspective, this includes being able to satisfy the family need without interference from work. For teachers, this need may be difficult to satisfy due to the interference which work has on their life domain, both in terms of time and psychologically (Nias, 1989). However, support from partners has been argued to help to reduce conflict between work and family domains (Palmer, Rose, Sanders and Randle, 2012). Family experiences, such as having children or getting married, can either aid or inhibit teachers' abilities and performance in the classroom (Pajak and Blase, 1989).

Inner Peace

Inner peace is the need to align inner values with the choices an individual makes and the feeling of 'harmony' which results (Finnis, 2011). This need is similar to the concept of professional identity which is shaped by the values which teachers hold (Day, 2002). These values require to be aligned to those of the school and profession and can include the expression of personal passions and commitment in the job. Inner peace can be seen as a need which might be salient to teachers in terms of their ability to align their own personal values with those of their job or profession (Kelchtermans, 2005). However it differs from the view of professional identity which can adjust or change in response to the work environment (Day, Elliot and Kington, 2005). Rather, inner peace is satisfied when an individual is able to express him or herself in a way that aligns with professional values and not through having to sacrifice personal desires to meet the requirements of the job.

Being able to be one's self while teaching is regarded as being important, although this can be eroded by external sets of values being imposed on school employees (Woods and Jeffrey, 2002). For example, Woods and Jeffrey (2002) describe the

ways in which teachers put on acts when being assessed as a means of protecting their personal identities. The need for inner peace can also be seen through the importance teachers ascribe to their work and life identities and the way in which these identities interact which impacts on their wellbeing at work (Day, Kington, Stobart and Sammons, 2006a) and how they experience the work itself (Maclure, 1993). This suggests that the need to be authentic and to express personal values will be an important need for primary teachers to satisfy.

Status

Status is the need for positive perceptions of others and the level of achievement an individual has attained in comparison with others. Teachers will pursue goals which include being better than other teachers and which will hide any deficiencies which make them less skilled than others (Nitsche, Dickhäuser, Fasching and Dresel, 2013). The need for status may be significant to teachers in relation to how they are perceived by parents and the community (Kelchtermans, 2011). External expectations of teachers fluctuate, particularly in relation to changing pictures of the successful teacher which will change depending on the policies of the government agencies that have control at any particular time (Ball, 2003) and the achievement of pupils is often used as a proxy for teacher achievement (Hanushek, 2011; McCormac, 2011; Mourshed, Chijioke and Barber, 2010). Teachers can be affected by the perceptions of others who might question their professional abilities (Kelchtermans, 2011).

There is a requirement for teachers to be good at their job but this is intertwined with the need for external acknowledgement that they have the skills to do the job (Keltchermans, 1996). The need for approval can also be seen where teachers express a desire for feedback from managers and those they learn with (Kennedy, 2011) and from their peers (Day et al., 2005). However, MacDonald (2004) indicates a level of hostility to the idea of being observed in the classroom, suggesting that teachers are only comfortable with feedback in specific situations. It is possible that feedback needs to be accompanied by a sense that it is both useful and that the teacher has a certain amount of control over the situation.

The reputation of the profession might also affect the need for status. Expectations from the public having all been to school and having seen how it has been done may affect the perceptions of the profession (Munro, 2011). However, Scottish teaching has actively sought public input into how education should be implemented (Ozga, 2005) and this may have enhanced the status of teachers through working in partnership with parents. Certainly the visibility which head teachers experience from school inspections is viewed as an unwelcome experience and there is an impact of accountability on wellbeing and work-life interactions of promoted teachers (MacBeath, O'Brien and Gronn, 2012).

Excellence and Mastery

Excellence and mastery is the need to develop excellence in both work and play. This can involve learning on the job using informal and formal approaches. Mastery can be seen in the focus on continual professional development (CPD) which is considered to be important within the teaching profession (Donaldson, 2010; Day et al., 2006b). While mastery is considered a need, CPD is also a contractual requirement in Scotland, meaning that there is an expectation that teachers complete one week's worth of training each year. An externally driven process could mean that CPD does not have the intrinsic benefits which would be expected from fulfilling a development need (Fraser, Kennedy, Reid and Mckinney, 2007). Continual professional development is often done in conjunction with peers (Menter and Hulme, 2012; Kennedy, 2011; Fraser et al., 2007) suggesting a relationship aspect to teacher learning. Increasing skills and commitment to the job are the two reasons why teachers embark on professional development (Grundy and Robison, 2004). However there is also an acknowledgement that CPD activities do not always result in adequate learning (Friedman and Phillips, 2004). For teachers, the need for mastery may be more than just being good at a job but rather expresses a fundamental desire to perform at the peak of their abilities.

Autonomy (Freedom)

Autonomy is the need to choose one's actions. The teaching discourse suggests that teacher autonomy has been reducing (Day et al., 2006b) and even where autonomy is increased through national initiatives such as *Curriculum for Excellence,* there is on-going suspicion that autonomy conceals hidden agendas to increase control (e.g.

Kennedy, Barlow and MacGregor, 2012; Kennedy and Doherty, 2012; Menter, Muschamp, Nicholls, Ozga and Pollard, 1997). For example, Doherty and McMahon (2007) suggest that Scottish teaching is becoming increasingly monitored, particularly in relation to performance and quality, although this has been accompanied by greater flexibility. In addition, MacDonald (2004) suggests that the hierarchical nature of teaching means that teachers are reluctant to challenge authority. Even where autonomy is offered, teachers may not be willing to satisfy this need, despite wanting to. Teachers avoid dissent as they do not want it to affect their wellbeing (MacDonald, 2004). This can also be seen in the lack of interest in pursuing promotion to become a head teacher (MacBeath, Gronn, Opfer, Lowden, Forde, Cowie and O'Brien, 2009). It may be that maintaining wellbeing in the profession is difficult to the extent that teachers will not risk affecting their wellbeing, even if it means that their need for autonomy is not satisfied.

Belief System

Belief system is the need for a belief in a higher source or purpose or source of meaning. The teaching profession may provide a source of purpose for teachers through the sense of vocation and calling which comes from the job. There is a desire for work to be personally meaningful to teachers (Day, 2002) and they will personally invest in their roles (Nias, 1996). A sense of calling to the teaching profession involves a long-held desire to become a teacher and to teach others (Bullough and Hall-Kenyon, 2012; Day et al., 2005), where being a teacher is the individual's identity (Bullough and Hall-Kenyon, 2011) and personal needs are disregarded (Estola, Erkkila and Syrjala, 2003).

While a teacher will not necessarily experience a sense of calling on entering the profession (Bullough and Hall-Kenyon, 2011), teachers do so because of the intrinsic rewards which teaching is perceived to offer (Bullough and Hall-Kenyon, 2011; Richardson and Watt, 2006). Day and Gu (2009) argue that a calling can also be considered to be an emotional response which informs teachers' behaviours and decisions. However, there is a lack of studies which have considered the effects that vocation in the teaching profession can have on teacher motivation and level of performance (Bullough and Hall-Kenyon, 2012). This is despite studies which

indicate that teaching is a calling and which demonstrate the altruistic reasons that teachers enter the profession (see Marshall, 2009 for summary).

While a sense of calling can be personally rewarding, it can also involve sacrifice (Lobene and Meade, 2013). Activities which are not directly related to teaching (e.g. administrative tasks) can increase stress (Rudow, 1999) and Smylie (1999) indicates the importance of individuals being able to cope with the requirements of the job in a way that meets their personal needs. Other writers argue that making sacrifices for others is not a central dimension of a calling (Higgins, 2005), in relation to the sense of purpose that an individual might gain from the job.

A sense of calling can lead to greater job satisfaction (Estola et al., 2003) and is not simply associated with altruistic desires. For example, Bullough and Hall-Kenyon (2012) suggest that the act of teaching is what provides teachers with meaning (including meaning in life) and encourages commitment to the job. Rudow (1999) cites the work of Leontjew (1982, in Rudow, 1999) which suggests that fulfilment of personally valued goals will result in wellbeing. However, Rudow (1999: 55) also indicates that 'only the teacher that is "burning" can burn out' highlighting the dangers of over-commitment which can be engendered by having a calling. This suggests teachers must also consider the limitations of their resources to be able to satisfy this and other needs.

Those who describe their work as a calling are less likely to make a distinction between work and life (Wrzeniewski et al., 1997) and Higgins (2005) asserts that investing time in other parts of life is essential to maintaining the sense of calling in a vocation. He cautions against viewing teaching as purely a provision of service to children and society. This suggests the requirement for global measures of wellbeing, as workplace specific measures may not provide a complete picture of where the call to teach may interfere with need satisfaction in other domains.

3.4 Work-Life Orientation for Teachers

Chapter 2 puts forward the argument for work-life orientation whereby individuals direct their energy to work or life (or both) in order to satisfy needs in these domains. It is argued that a balanced work-life orientation may be associated with needs being satisfied in both work and life (Hypothesis 2a) and wellbeing (Hypothesis 2b).

Satisfying needs in work and life may also explain higher levels of wellbeing (Hypothesis 2c). The following section considers support for these arguments in the teaching literature.

Ballet et al (2006: 216) talk about the 'permanent lack of time' which permeates teachers' lives and the interference this can have in their home lives. The way in which work-life conflict manifests may differ for teachers (Palmer et al., 2012; Cinamon and Rich, 2005a). For example, Palmer et al (2012) indicate that teachers are a unique group to consider in that their interaction with children can often span both the workplace and family life (assuming they have children of their own). There are also indications that increasing need satisfaction (e.g. of relationships and mastery needs) for teachers might help to reduce levels of conflict (Cinamon and Rich, 2005b). The ability to manage work and life will impact on how able a teacher is to learn and develop (Day and Gu, 2007), with change in both the personal and professional domains of teachers encouraging learning and development in the workplace (Grundy and Robison, 2004).

Bullough and Hall-Kenyon (2012) indicate that teachers focus on general personal qualities rather than their ability to do the job, suggesting that their sense of self spans both the work and life domains. A consideration of needs in the workplace alone does therefore not allow a full examination of the needs which might be important to teachers. This holistic approach can be seen in the literature whereby Day and Gu (2007) indicate that workplace learning (corresponding with the excellence and mastery need) contributes to a teacher's view of themselves as a whole, not just as a professional. They also point out that life events can likewise affect their perceptions of their professional self. A positive home life interacts with a teacher's sense of commitment to the job and commitment to the job can transcend the distinction between work and life (Day et al., 2005). The integration of work and life, particularly in relation to identity, raises questions about whether it is even possible for teachers to separate the work and life domains.

There is an expectation that teachers carry out additional work beyond the 35 hour working week (Bell, 2011; MacBeath et al., 2009) which inevitably means that professional life will impact on teachers' personal lives. McCormac (2011) is clear

that the 35 hour week is appropriate and that additional hours worked outwith this time period are acceptable for the professional nature of the job, but this may require additional consideration into how satisfied teachers are with these hours in order to determine whether this expectation is appropriate. Engagement may help to avoid the potential for burnout caused by working long hours (Timms et al., 2012), although there is still the indication that working more hours will inevitably interfere with family life (Palmer et al., 2012).

The VITAE project has shown that teachers experience work-life conflict, but reports that life events can affect their performance in the classroom (Day et al., 2006b; Day et al., 2005). One third of the teachers interviewed balance work and life, with other respondents having additional pressures from at least one domain (Day et al., 2007). While work issues alone can affect wellbeing on the job, Day (2011) also shows that both work and life can cause conflict which in turn has the potential to affect wellbeing. What is less understood in research on teachers is how the satisfaction of various needs might be affected in each domain as a result of directing energy to the work or life domain.

While studies on teachers' work-life conflict consider life and work satisfaction, they are limited in their consideration of other aspects of wellbeing such as emotions or levels of meaning. Day and Gu (2007) highlight the lack of consideration in the literature of the extent to which the interaction between work and life can affect teachers. This has particular salience in relation to the risk that meaning and achievement in the work domain can be achieved to the detriment of the life domain (Bunderson and Thompson, 2009; Hall and Chandler, 2005) which can be exacerbated by the individual's life stage (Palmer et al., 2012). This is echoed by Nias (1999) who suggests that the sense of identity which a highly committed teacher has will spill over to their home life manifesting, for example, in dreams while they sleep. This suggests that there may be a benefit to a wider consideration of the effects of domain conflict in teachers' lives as a whole in relation to affect, life satisfaction and meaning in life.

The commitment and engagement teachers have in the job may affect their work-life orientation. Commitment is defined as the 'degree of psychological attachment to the

teaching profession' (Rots, Aelterman, Vlerick and Vermeulen, 2007: 546) and includes being true to one's values, investing more than is required to do the job, continually improving and adapting, and engaging cognitively and emotionally (Day et al., 2005). Sparkes (1988) identifies three types of commitment: caring for pupils, giving time and energy, and pursuing promotion or higher salaries and indicates that an individual can experience one or more forms of these commitments at the same time. Levels of commitment can be measured through intention to leave or by asking teachers if they knew then what they know now, would they make the same decision to enter teaching (Fresko et al., 1997) and there is evidence to show that commitment may change over time. Commitment can be lower in experienced teachers with one reason put forward as the stress that teachers are placed under (Klassen and Chiu, 2011). Nias's (1999: 224) conception of commitment as the allocation of 'scarce resources (e.g. time, energy, money) to the day-to-day performance of one's job' suggests that individuals may be more likely to pursue work needs which are of most importance to them and that this in turn may affect the resources they are able to direct to the life domain.

3.5 Role and Career Stage of Teachers

Hypotheses 3a, 3b, 3c and 3d argue that promotion, role tenure, age and gender may impact on an individual's ability to satisfy needs and the following section considers this in relation to the teaching literature. The life or career stage of an individual may affect the needs which a teacher chooses or is able to satisfy. The 'professional life phase' of teachers (i.e. the time they have spent in the profession) may affect their level of performance (Day, 2008) and commitment (Day, 2011). Huberman (1993: 4) considers career stages or ' "stages" of life in the classroom' and also indicates that these will have an effect on the ways in which teachers experience their career. Day et al (2007) highlight the danger of assuming that teachers will pursue promotion and suggest that this should not be the only way in which a career is considered. What a focus on career stage does not do is consider the age of the individual or the life stage which they may be at. For teachers who have entered the profession late or taken time out to have children, their life and career stage may differ (Day et al., 2007).

Age has been considered in other studies. For example, Oplatka (2005a) looks at teachers who are aged 45 – 55 and indicates the renewal they can get from moving schools through personal development and increased job satisfaction (Oplatka, 2005b). Similarly, the age of the teacher and the generation in which they belong may determine how they deal with change taking place in schools (Hargreaves, 2005; Keltchermans, 2005). However, as Day et al (2007) argue, the age of the teacher does not necessarily reflect contextual influences which may affect teachers, regardless of their age.

Klassen and Chiu (2010) demonstrate that female teachers are more likely to experience job related stress and Liu and Ramsey (2008) found differences between how men and women experience job satisfaction, showing that they were satisfied with different aspects of the job. However, the effects of gender in relation to burnout are not always consistent (Chang, 2009). The gender of teachers is considered in relation to differing expectations of how they should act or be, particularly in relation to being caring and mothering (Fischman, 2000), and these images of an effective teacher may impact on the needs which are satisfied by females or males.

Both tenure in the profession and age are shown to have an effect on the wellbeing of teachers (Day, 2008; Oplatka, 2005b) as has role (MacBeath et al., 2012). Liu and Ramsay (2008) indicate that the longer a teacher is in the profession, the higher their job satisfaction is, except where workload is concerned and Chang (2009) points to literature which suggests that beginning teachers experience higher levels of emotion. This suggests that there is value in considering age, gender, role and role tenure in relation to satisfying needs and optimising wellbeing.

3.6 Organisational Environment: Challenges and Enablers in Teaching

Chapter 2 provides an initial insight into the challenges and enablers which may enable or challenge need satisfaction (Research Questions 4 and 5). It proposes that factors such as the support and expectations of others, availability of resources and development, conducive working environment, opportunities to support others, dealing with change, and opportunities to develop and express one's self can support or challenge need satisfaction.

The organisational environment in which a teacher operates may support or challenge the wellbeing of teachers (Day and Gu, 2009) and these challenges and enablers may affect teachers' ability to satisfy needs, which in turn affect teachers' ability to sustain their wellbeing. The main factors which emerge from the literature are the changes which teachers experience, their working environment, expectations and support of others, availability of development, availability of resources and scope to support others. The work context is a factor in determining how much an individual engages with his or her role (Kahn, 1990) and may have negative effects on performance as a result. It is argued that these factors enable or challenge the ability of teachers to satisfy their needs.

Change is a main contextual factor and may affect teachers' ability to satisfy needs due to having to adapt to new expectations (Smylie, 1999). It can increase stress by instigating temporary drops in performance, reductions in autonomy and by preventing workplace needs and values from being satisfied (Smylie, 1999). Where these changes decrease need satisfaction such as autonomy, this may have a negative effect. For example, the VITAE report indicates concerns with the increased levels of professional control (Day et al., 2007) and the effects of change on teachers, particularly those who have been teaching more than eight years (Day et al., 2006b). Day and Gu (2007) indicate the effects of organisational change on motivation, highlighting the impact of reforms on morale, suggesting that the values that teachers have, as well as their expectations that they can succeed, may be impacted.

Teachers are generally effective in withstanding the challenges of change (Day, 2011), although the longer they teach the more they may find it difficult to adjust to those changes (Day et al., 2007). Even where a change is aligned with a teacher's values, the way in which it is implemented can affect their wellbeing (Keltchermans, 2005). The opposite can also be true, where the personally held beliefs of teachers can mediate how they practically implement pedagogical changes (Wallace and Priestley, 2011; Maclure, 1993). This suggests that there will be a relationship between the needs which teachers are able to satisfy and their ability to deal with changes in their job.

Working environment can also impact on teachers' abilities to satisfy needs. Factors such as the school location, the level of student ability, size of school and the financial status of the school can all affect a teacher's decision to stay in that particular job (Guarino, Santibanez and Daley, 2006). For example, teachers can be paid additional salary amounts to retain their employment in schools which are in areas of social deprivation (Kyriacou, 2001). The behaviour of pupils can also affect teachers in relation to their wellbeing, due to the time and effort which is required to deal with this difficulty (Tsouloupas et al., 2010). The behavioural issues of children is increasing (NASUWT, 2012; Adams, 2005; GTCS, 2005), as is paperwork and workload (NASUWT, 2006, 2012).

The working environment can prevent needs such as autonomy from being realised. The VITAE project indicates that less than 50 percent of teachers report high levels of motivation and attributes this to a lack of freedom which is caused by constrictive curriculums and scrutiny of performance (Day, 2002). However, despite the emphasis that Kahn (1990) places on the context in supporting commitment, Day et al (2005) argue that teachers remain committed to their jobs even where the context becomes increasingly controlled, stressful and less secure. Teachers who are motivated by and committed to their job will find a way to carry out the role in a way that best suits them (Day, 2000). However, contextual factors such as organisational culture also place pressure on a teacher's ability to maintain commitment (Day, 2000).

Leaders can be influential in the achievement of others, encouraging them to pursue promotion (MacBeath et al., 2012). Good leadership may help to address increased stress and prevent staff from leaving or being sick (Dunlop and Macdonald, 2004) and may also help teachers deal with other sources of stress such as working in areas of deprivation (Day, 2002). Leadership will provide support for teachers (Cheung Lai-man et al, 2008) but the demands of the job may also be increased by the expectations of others (Smylie, 1999). For example, Freeman (1989) indicates that those outwith teaching define a good teacher as being a good role model and one who excels at both disciplining and ensuring pupils learn. Some commentators question the implications that teachers are not yet 'professional enough' and pinpoint

implicit expectations that teachers should be doing more in their own time (Kennedy et al., 2012).

The continuing challenges that teachers face include expectations from parents and the wider community (Hutchinson and Young, 2011; McCormac, 2011) and this can affect teachers' emotions (Kelchtermans, 2011; Zembylas, 2011). The public's (sometimes skewed) view of teachers' performance can put pressure on them, despite the limited control they have over their performance (Keltchermans, 2005; 1996). It can impact on their ability to maintain positive emotions and can be a source of stress (Cole, 1989) and dissatisfaction may arise from investing too many personal resources in order to maintain the professional standards (Nias, 1989). This, along with increased central control, can cause stress (Dunham, 1992) both in relation to how much influence teachers have over their pupils' learning along with the level of input they have into what and how they teach (Cole, 1989).

There is also an indication that teachers can be prevented from embarking on professional development (Day et al., 2007), suggesting that despite being perceived as important, development is not always given priority. Menter and Hulme (2012) indicate a reduction in the availability of promoted posts and of training in the Scottish teaching profession. They describe the provision for continual professional development for more experienced teachers as 'patchy' due to the pressures on local authorities to balance cuts to their budgets and provide quality development opportunities (Menter and Hulme, 2011). In addition, there has been limited success in the implementation of formal development programmes (Hulme et al, 2013) which may have previously helped contribute to fulfilling development needs.

The availability of resources provides support to teachers (Cheung Lai-man et al., 2008). Teaching professionals are having to do their jobs with less monetary resources available to them (Menter and Hulme, 2012) and altering teaching techniques while not being able to purchase resources to support these changes may increase stress through having to spend more time making preparations. How much this may impinge on teachers' own wellbeing is unclear but the criticisms can include lack of guidance, time, money and training required to support its implementation when implementing new curriculums (Kidner, 2010). Lack of

resources impact on teachers' emotions because it prevents them from doing a good job (Klassen et al., 2012). Teachers are viewed as being instrumental in children's success (Stronge, Ward and Grant, 2011). However the different classroom factors (e.g. student gender, topic being taught) can impact on the effectiveness of teaching interventions (Kyriakides, 2006). Context can therefore challenge a teacher's attempts to ensure pupil learning.

The structure of the job may encourage teachers to use emotional labour and mask their real emotions in order to connect with the children they teach (Chang, 2009). Emotional labour (Hochschild, 2003), whereby teachers are expected to control their emotions, is implicitly suggested by Nias (1989), and is furthered by Zembylas' (2002) discussion of 'emotional rules' which determine the emotions teachers can and cannot show in order to remain professional. Teachers may be willing to limit their own wellbeing in order to support the learning of others. The need to build relationships with pupils may also contribute to the sense of vulnerability which teachers experience, as they are dependent on the willingness of pupils to reciprocate (Spilt et al., 2011) and may cause negative emotions where the relationships are challenging (Chang, 2009).

The effects of challenges and enablers such as the changes which teachers experience, their working environment, expectations and support of others, availability of development, availability of resources and scope to support others can all be argued to have an effect on the ability of teachers to satisfy their needs. This is likely to impact on their wellbeing as a result. The specific environment in which a teacher works may influence the extent to which teachers are affected by these enablers or challengers. As a result, it is useful to consider the context in which Scottish primary teachers work, the focus of the present study. This includes the effects of changes to the education system and current initiatives which are likely to have an impact.

3.6.1 The Enablers and Challenges in Scottish Teaching from a Historical Perspective

Given the potential effects of context on the ability of teachers to satisfy needs (Research Questions 4 and 5), it is important to understand the context of Scottish

teaching and how the enablers and challenges have changed over time. The Scottish education system has always been separate from the wider UK system (Menter and Hulme, 2011; Ozga, 2005) and has therefore followed a relatively unique trajectory of reform and development. The following section sets out the history of Scottish teaching from 1965 to 2006. It provides an understanding of the changes which have taken place to the profession, with teachers in the latter stages of their career having worked through all of the changes. It gives an insight into how expectations on the profession and pedagogical approaches have changed and takes into account the curricular and other changes which teachers may have been involved with.

The focus on child-centred education which was introduced to Scottish teaching in 1965 is the approach which the current older generation of Scottish teachers was introduced to. The 1960s saw the introduction of child-centred education through the *Primary Education in Scotland* document (Anderson, 2003) which came about through the desire for more progressive education, stemming from the positive economic conditions of the time (Hartley, 1987). *Primary Education in Scotland* (Scottish Education Departmentt, 1965) advocated a focus on the individual development of each child through play, focusing on building the social skills of children as well as giving them a formal education, with the aim of the approach to be for the child to be able to make a contribution to the community and society as a whole. In addition it was considered important for the child to be equipped to pursue a satisfied life.

> The function of the primary school, therefore, is not merely to prepare him for secondary education or to teach him the basic skills, but to begin to prepare him for life. Consequently it must concern itself with the whole child, fashioning its organisation, its curriculum and its methods in such a way as to cater for every facet of his developing personality. (Scottish Education Department, 1965: 11)

The *Primary Education in Scotland* document outlines a number of key needs which teachers were expected to provide to their pupils, which included the need for security, guidance, freedom and understanding (Scottish Education Department, 1965: 11 - 14). In terms of leadership, the purpose of the head teacher was to be a

teaching role, rather than an administrative one. The importance of utilising the skills of the teachers in the school as well as to develop those abilities and encourage collegiality is also highlighted and the expectations were that they were professional, continually developing and willing to help less experienced colleagues. While they were given a 'scheme of work' outlining what they should be teaching in relation to the rest of the school, there was still an emphasis on the ability of the teacher to know and teach what best suited the needs of their class. In terms of the relationship with parents, *Primary Education in Scotland* (1965) suggests meeting with them prior to their children starting school, with the main interactions taking place in the first few years of school and after that only when required, meaning that parent interaction was kept to a minimum.

The introduction of the *5-14* Curriculum in 1987 enabled greater central government involvement in education and made the curriculum clearer and more explicit (Adams, 2003). This created a working environment which was less supportive of individual autonomy (Adams, 2003) and increased parental interactions. The increased control of teaching suggested a move towards a professional culture which restricted the freedom of teachers to teach in their preferred way. However, this was a reaction to a previous lack of curricular direction at school level and the inability of classroom teachers to implement the innovative teaching methods that *Primary Education in Scotland* advocated (Adams, 2003). There was a lack of consultation and a rapid introduction of *5-14* (Adams, 2003; Scottish Office Education Department, 1994) despite there also being evidence which indicates that teachers liked the structure that the *5-14* guidelines offered (Pickard, 2003). There were also specialist aspects of the new curriculum (e.g. expressive arts and religious and moral education) which did not fit with the existing expertise of teachers (Scottish Office Education Department, 1994).

The 5-14 curriculum also saw the introduction of testing which teachers were less happy with (Pickard, 2003), suggesting that they may not have considered testing to be effective teaching and learning. Teachers viewed testing as a measure of achievement as an unrealistic approach and reported that it was not always clear what should be assessed and how it should be done (Scottish Office Education and

Industry Department, 1996). In addition, there were parents who did not support testing and withdrew their children from the tests (Harlen and Malcolm, 1994). The Scottish Office's (1996) response was to recommend parental learning, after-hours study support for pupils, and working with industry and the wider community to attempt to increase parental support and involvement.

Workload was also a concern, and the Scottish Office Education Department progress report (1994) indicated that there were initial concerns over how to report attainment (in relation to increased administrative time) and in relation to planning learning. It also indicated a desire for increased collegiate working and more resources to support the increased workload demands of the new curriculum. Teachers were expected to formalise their development through appraisal systems and, despite an increase in central control over the curriculum, head teachers were becoming increasingly empowered in relation to managing their schools (Scottish Office Education and Industry Department, 1996). These changes indicated a shift towards increasing expectations in relation to teacher effectiveness.

As well as the movement towards a more coherent educational system with *5-14*, the *Improving Achievements in Scottish Schools* (Scottish Office Education and Industry Department, 1996) document addressed the impact of socio-economic deprivation on children's learning, indicating that teachers working with deprived children needed to provide for the children's basic needs in addition to teaching them. It acknowledged the additional work this potentially created for teachers dealing with challenges over and above classroom learning, particularly for senior members of staff who were expected to be involved in assisting children who needed it, while also leading their staff and garnering the support of parents.

The opportunity for development also increased for teachers. Additional forms of teacher training were introduced at this time, including the Teacher Induction Scheme for newly qualified teachers, the Chartered Teacher programme for teachers wanting to remain in the classroom and the Scottish Qualification for Headship for those who wished to move into head teacher roles (Menter and Hulme, 2011), providing greater support for the development of the skills required to teach effectively. The Scottish Office was keen to introduce succession planning for head

teachers and to start to train potential candidates before they reached the role of head (Scottish Office Education and Industry Department, 1996). There was also a suggestion that additional support should be given once they entered the role, in the form of peer mentoring from other head teachers. There was increasing focus on developing staff and monitoring their progress through individual development plans which in turn were linked to the school development plans (Scottish Office Education and Industry Department, 1996). Peer learning was also advocated, particularly in its ability to facilitate working relationships (Scottish Office Education and Industry Department, 1996).

The strikes in the mid-1980s resulted in reduced hours, the newly created position of senior teacher and simplified pay (although substantial pay increases were not seen until 2001 with the McCrone agreement) (Pickard, 2003). This was then followed by the subsequent introduction of self-assessment in schools. The *How Good is Our School* framework allowed schools to self-assess themselves against a set of standards, and outlined the increasing importance towards the setting of improvement targets in schools (Scottish Office Education Department Research and Intelligence Unit, 1998). There was increasing focus on underperforming schools, although the difficulty of establishing the relative performance of schools in challenging areas versus schools in areas where higher quality was easier to establish was acknowledged (Scottish Office Education and Industry Department, 1996).

The McCrone Agreement (Scottish Executive Education Department, 2001) built on these changes by introducing increased pay, time away from the classroom within a 35 hour working week, increased focus on professional activities (with additional staff to take on administrative duties to help support this), 35 hours of professional development each year and a greater say in relation to policy making within the profession (MacDonald, 2004). The McCrone agreement reduced the hierarchical structure, and offered technical progression in addition to managerial progression in the form of the chartered teacher role (Ozga, 2005). This indicated a desire to support teachers in terms of providing appropriate skills, allowing them to realise those skills on the job and to facilitate a reduction in working hours and increase in

rewards. Despite the move towards central control over the curriculum, there was a desire for teachers to have an input into those central decisions.

3.6.2 Enablers and Challenges in the Current Scottish Education Context

An overview of the current initiatives is important to understand the contextual impact on teachers' abilities to both satisfy needs and to maintain or enhance their wellbeing. In 2006 *Curriculum for Excellence* was introduced to the Scottish teaching profession (after the 2002 national debate on education) and integrated into schools in 2010. *Curriculum for Excellence* was developed to 'enable all of the young people of Scotland to flourish as individuals, reach high levels of achievement, and make valuable contributions to society' (Scottish Executive, 2004: 9).

This new curriculum outlines the skills and capabilities which are to be taught to children until mid-way through their secondary education (Kidner, 2010), with the latter years of school being devoted to assessment. There has been a move away from the prescriptive curriculum of *5-14*, and a greater focus on the learner as an individual, with increases in links between subjects and disciplines in comparison to the previous focus on individual topic slots (Kidner, 2010). This increases focus on the skills required by society and on expanding choice and enjoyment for children and young people (Scottish Executive, 2004) and assessments are encouraged to be consistent but varied in the approaches taken (Learning Teaching Scotland, 2010). *Curriculum for Excellence* encourages the appropriate implementation of the five priorities of increasing attainment and achievement, developing teachers and school environments, promoting equality, interactions with family and community and developing skills needed to function in society (The Education (National Priorities) (Scotland) Order 2000). The new curriculum also addressed some of the criticisms latterly being levelled at the *5-14* curriculum which were that it did not further innovative teaching practice (Adams, 2003), with the view to increasing teacher autonomy and control over teaching practice.

In order to ensure successful children, the teachers themselves must be successful in their implementation of learning (Scottish Executive, 2006). The Scottish Executive (2006:1) stated that:

The children and young people of Scotland need teachers who themselves exemplify the four capacities, who have a sense of community with their colleagues and who share in responsibility for the success of the school and all that happens within it.

This suggests that teachers are required to role model the expectations which the curriculum has for pupils, but that they must also be collegiate and take ownership for ensuring successful learning (Scottish Executive, 2006). Lopez and Calderon (2011) indicate the requirement for teachers who have creative skills and are able to work with others to enable the development of this curricular approach.

Recent changes stemming from *Curriculum for Excellence* (Scottish Executive, 2004) and increasing expectations on teachers to perform at high levels are creating what O'Brien, (2011) refers to as the 'new professionalism' of teaching, with both the McCormac Report (2011) and the Donaldson report (2010) outlining the skills, attributes and activities which teachers are expected to demonstrate. Despite the decrease in public funding and major reforms in the way children are taught (Menter and Hulme, 2012), there is still an expectation of high standards of professionalism in Scottish teaching (GTCS, 2012b; Donaldson, 2011). For example, the McCormac review (2011) calls for greater efficiency, flexibility, collegiality, leadership and improvement.

The Donaldson report (2010: 7) refers to the process of *Curriculum for Excellence* as one of 'co-creation' and as 'requiring the highest standards of professional competence and commitment', indicating the need for 'the willingness of teachers to respond to the opportunities [the new curriculum] offers' (Donaldson, 2010:4). These changes bring with them greater autonomy and collegiality (Donaldson, 2010) and the potential for increased skill development (O'Brien, 2011). In addition, the school is viewed as a community, suggesting an expansion of the role of teachers as leaders within this community (Scottish Executive, 2006; Scottish Executive, 2007), in addition to being educators. There are pressures on teachers to provide optimum learning conditions as well as teaching skills and knowledge.

Recent reports by McCormac (2011) and Donaldson (2010) provide a review of teacher conditions and education in Scotland, bringing in further changes to the performance and development of teachers, along with greater support in implementing *Curriculum for Excellence* (Scottish Executive, 2011b). The purpose of these reports is to consider ways in which talented teachers can be attracted into the profession and then developed, as well as a consideration of the costs associated with this workforce (Scottish Executive, 2011a). The McCormac report (2011) recognises both the commitment and challenges experienced by the profession but is also concerned with increasing teacher performance. It acknowledges the importance of avoiding the interference of work in life but suggests that teachers, as professionals, put in the required work to achieve their objectives. It suggests a move from a prescriptive list of duties to a set of value-based standards which set out the expectations of teachers (GTCS, 2012b) and in continuing, accrediting and re-invigorating professional development (Donaldson, 2010). The McCormac report (2011) also indicates that teachers are becoming increasingly responsible for the partnerships which support the child's learning. While they have always worked with agencies such as social work or the police, they are increasingly expected to act as a central point of contact for these partnerships. This increases the likelihood of additional workload and responsibility which could increase stress.

Teachers are in relatively secure jobs given their public sector status and the Scottish Government's avoidance of compulsory redundancies (Parry, 2012). However, while full time employment for new teachers has started to increase in the past few years (GTCS, 2012a), not all probationers are automatically offered positions, meaning that a certain amount of persistence is required for some in order to remain in the career. The favourable pay that teaching graduates receive in relation to other professions may encourage persistence (Findlay, Findlay, and Stewart, 2012). However, this must be considered in relation to expectations that teachers will work beyond a 35 hour working week. Working additional hours is viewed as necessary to do the job, as well as being an indication of professional commitment (Bell, 2011), although the volume of unpaid overtime required (Findlay et al, 2012) may be off-putting. This is further compounded by teaching being a stressful occupation in general (Dunlop and Macdonald, 2004). In 2011 £650 000 was paid to Scottish

teachers for workplace ill health (the biggest factor of which is stress), with the EIS general secretary calling for local authorities to give more consideration to the mental health of its teaching staff (BBC, 2012).

Dunlop and Macdonald (2004) highlight that national wellbeing initiatives tend to focus on students rather than teachers and this is no different in Scottish education, for example, *Getting it Right for Every Child* initiative (Scottish Government, 2012b). While the positive values of teachers are also likely to transfer to the value systems of the pupils and help to increase learner success (Knoop, 2011; Dasoo, 2010), the focus of teacher values tends to be in relation to pupil wellbeing, rather than that of the teachers themselves (e.g. Lovat, Clement, Dally and Toomey, 2011; McCallum and Price, 2010).

The unique changes taking place in Scottish teaching may have an effect on the teachers' ability to satisfy workplace needs. For example, the changes which Doherty and McMahon (2007) describe indicate greater satisfaction of security (increased pay) and autonomy (through flexibility) but with a reduction in the ability to satisfy status and achievement needs through the flattened hierarchical structure as a result of the McCrone agreement (Ozga, 2005). *Curriculum for Excellence* may help to satisfy needs for autonomy and mastery in the form of re-skilling (Ballet et al., 2006), but it may also increase levels of work as would be expected from centralised educational reform (Day et al., 2006b). This may create tensions between increasing autonomy and mastery need satisfaction in the workplace while preventing life needs from being satisfied due to additional workload pressures.

The extent of the changes over the past 50 years may have affected teachers. The current population of primary teachers has an average age of 41 years (Scottish Government, 2012a). This means that most will have taught during the *5-14* era and will have experienced the changes which have impacted on the profession, such as wage and working time consolidation and increasing parental contact. The 19 percent of teachers who are over 55 years (Scottish Government, 2012a) may also have experienced the *Primary Education in Scotland* reform, meaning that they made the transition to a more controlled curriculum. Almost all teachers involved in the study will have experienced the transition to the values based learner-centred approach of

Curriculum for Excellence. This means that a significant proportion of Scottish primary teachers will have undergone a range of changes over the course of their careers.

While the effects of the recent changes to Scottish teaching are currently unknown, there is benefit in developing an understanding of the needs teachers might seek to satisfy in the face of increasing demands on their time and abilities such as the competing demands of the local authority, parents and the community, the children and young people they teach and, not least, their own personal lives. Understanding where to focus their energy to maximise need satisfaction is essential to ensuring a job that is satisfying and rewarding, which is likely to manifest in greater effectiveness.

3.7 Chapter Summary

This chapter considers wellbeing and need satisfaction from the perspective of teachers to show support in the extant teaching literature for the research questions and hypotheses of this study. It argues that teaching is a stressful occupation and that it is important to consider the wellbeing that teaching professionals have. Need satisfaction is considered as a means of encouraging motivation in the job and an overview of the literature is provided which suggests that teachers pursue the needs of knowledge, harmonious relationships, health and vigour, safety, family, inner peace, belief system, status, excellence and mastery and autonomy. The literature suggests that the boundaries between work and life for teachers is difficult to separate and that one domain affects the other, suggesting that optimum need satisfaction in both domains is important. Despite this, there is no clear understanding of which needs to satisfy in each domain and what the effects of optimising need satisfaction are. A consideration is then made of the general, historical and current context in which teachers work and it is argued that contextual factors may support or prevent teachers from satisfying their needs. The constraints and enablers facing Scottish primary teachers have changed over time and an overview of these changes is outlined to explain the supports and challenges which may impact on their ability to satisfy their needs.

Together, Chapters 2 and 3 argue that individuals will pursue needs in both the work and life domain and that the effective satisfaction of needs in both domains is associated with wellbeing. While a limited range of need satisfaction in the work and life domains is shown to be associated with wellbeing, previous studies have not covered a full range of needs or clearly shown how needs should be satisfied across work and life. These chapters establish a rationale for examining the research questions and hypotheses developed in Chapter 2 for the teaching profession. The following chapter describes the research design and methods used to consider the needs which are important, their associations with wellbeing and how these needs should be satisfied across work and life for the case of Scottish primary teachers.

Chapter 4
Methodology

4.1. Introduction

This chapter outlines the research philosophy of scientific realism which underpins the approaches used in this study. It highlights how the philosophy lends itself to a mixed methods approach and follows this discussion with an account of the two-phase research design. An initial exploratory interview phase followed by a quantitative survey phase was used to test the associations between need satisfaction in work and life and wellbeing.

The interview stage allowed for the investigation of Research Question 1 (What basic needs must be satisfied in both work and life domains for wellbeing?), Research Question 4 (What are the most significant enablers and challenges in achieving/ maintaining satisfied needs in work?), and Research Question 5 (What are the most significant enablers and challenges in achieving / maintaining satisfied needs in life?). A rationale is provided in this chapter for the interview approach and schedule, along with detail of the analytical approach to interview coding. In addition the outcomes of the analysis, of both the personal experiences of teachers and retired teachers (life history-type interviews) and the views of those with a wider view of the teaching profession (stakeholder interviews), subsequently informed a set of needs to be used in the survey phase.

The survey was used to investigate Research Question 1 and Research Question 2 (What orientation to work and life leads to optimum levels of need satisfaction?) and Research Question 3 (How do (a) promotion (b) tenure in role (c) age and (d) gender influence work-life orientation, need satisfaction, and wellbeing?). The statistical methods used in the survey analysis are explained and justified.

4.2 Research Philosophy

This study takes a Scientific Realism philosophical perspective. It is argued that the logical positivist approach which is generally taken by research in the positive psychology movement (Richardson and Guignon, 2008) does not allow for basic needs to be studied. The positivist philosophy takes the stance that reality can be

understood by either logical argument (theoretical) or through experiment (empirical). This means that the measurement of needs is open to the argument of whether or not a need is satisfied is an arbitrary opinion, rather than fact and therefore cannot be 'real' (Putnam, 2002). In comparison, scientific realism suggests that theory can represent reality, even if that reality cannot be directly observed (Ladyman, 2002). As a result, there is a risk that reality may be obscured by our perceptions of it. For example, Ladyman (2002) gives the example of gold which has certain atomic properties (reality) and which looks yellow (a power which is dependent on observation). However, it is still possible to discover the truth, or parts of it, and this is done so through the use of theories which correctly reflect reality (Hacking, 1983). Due to the risk of reality being obscured or hidden, scientific realism rejects the idea of the discovery of laws, preferring to focus on considering the best explanations for outcomes based on a combination of observation and theory (Hacking, 1983).

In the same way human needs, when realised, are observation dependent and are realised through interactions with the external world. Conversely, unrealised needs cannot be seen through testing or observation, even though they still exist (Norton, 1976). Only realised needs can be measured and this cannot show the absence of other needs. While needs are 'real', that is, they are by definition what it is to be human, only the powers (realised needs) can be seen when they react with the rest of the world. For example, although a person might embark on extensive self-development but does not foster friendships, this does not mean that he does not have the capacity to be a friend. However, inferences can be made through both theory and empirical insights. The realist philosophy allows for this proposition to be possible, even though the needs represent unobservable objects when unfulfilled and therefore cannot be shown empirically until they have been realised (Ladyman, 2002; Manicas and Secord, 1983).

Needs can be logically shown to be human capacities which exist for no reason other than they are what make individuals human (Finnis, 2011). To be human is by definition to have these capacities. A realist approach argues that a theory of needs does not require to be observable (Hacking, 1983), but can instead be argued through

sound theory. The capacity for human needs is independent of whether individuals know they have those needs or can see those needs being satisfied for themselves or others. For example, Finnis (2011) presents a logical argument for the capacity to satisfy human needs. An individual may not have satisfied all of these needs and may not be aware of Finnis' arguments as to the existence of these capacities. However, this does not mean that the individual does not have the capacity to satisfy those needs.

Cartwright and Pemberton (2013) assert that causal powers in science are an empirical indication of the potential that antecedents have. This means that satisfied needs indicate the potential for fulfilment that individuals theoretically have. Powers can act alone (as would be likely in a controlled experimental environment) or together (which might create a combined effect between the powers and the environment which will not be evident in the controlled setting), but either way, their effects are important to consider. This means that basic needs, when activated, act in predictable ways. However other individual and contextual forces (in the case of this study, orientation to work and life and organisational constraints and enablers) acting at the same time may result in differing outcomes. Cartwright and Pemberton (2013) argue that where a combination of causal powers act on a consistent basis, the arrangement of these powers can be described as a 'thing'. In the same way, the realisation of human needs within the organisational context of teaching can similarly be argued to be a relatively endurable set of powers.

Cartwright and Pemberton's (2013) arguments are similar to those of critical realists whereby powers (or mechanisms, in the language of critical realism) cause 'events' (Danermark, Ekstrom, Jakobsen and Karlsson, 2002). Critical realism suggests that these effects may both influence the actors and be unseen by them (Ackroyd, 2009; Collier, 1994). While there is an assumption that there is a reality which exists outside of human perceptions, it is filtered through the understanding of individuals who mediate their perception of the 'real' world (Collier, 1994; Ackroyd, 2009). This means that the experience of the individuals may not always reflect reality (Collier, 1994) as the individuals may not be aware of or understand the mechanisms acting on them (Ackroyd, 2009). The critical realist view that the powers which act on

individuals may not be directly observable by the actors themselves is acknowledged.

The relationship between the actor and social context which critical realism posits is also accepted. The actor is interrelated to the structure in which they operate (Sayer, 2012): by definition, a teacher is a teacher because of the interaction they have with pupils, parents and the wider school. Similarly, needs cannot be realised without interaction with the social world. For example, realising the need for family requires family members to interact with, and mastering a skill involves interacting with the environment in which that skill takes place. Collier (1994) also indicates that actors can have the potential to act but may not, for whatever reason, fitting closely with the Aristotelian view that having capacities does not necessarily indicate that they will be realised. The actor has a certain level of choice over whether to exert his or her capabilities or powers but, at the same time, the choice over whether to realise these capacities will be constrained by the social structures in which the actors operate (Collier, 1994). Where these structures prevent the capacities from being realised, it may be necessary to address this to provide the conditions where the actors have greater freedom to realise their choices. This is in line with scientific realism which suggests that varying powers might influence the individual in an environment which is not experimentally controlled (Cartwright and Pemberton, 2011).

Despite the temporary and fluctuating social structures which are key to the critical realist ontology (Collier, 1994) the scientific realist arguments that a theory should be stable over time (Mouton, 1993) suggest that it can be expected that individuals will act to satisfy their needs. As has been argued above, since human capacities are considered to be endurable, it is expected that individuals will react in accordance with these capacities and that they will interact with organisational and life contexts in ways that will satisfy these needs. However, the potential for numerous (and potentially hidden) contextual constraints or enablers will mean that only a best explanation for need satisfaction and its relationship with wellbeing can be shown, rather than statements which suggest laws governing the actions which individuals will take. This is due to the contextual constraints of enablers or challenges preventing or assisting need satisfaction and it may be important to understand these

constraints. The resulting explanations will therefore make no attempt to suggest general laws, but will offer the most likely explanation of the causes (Ladyman, 2002).

4.3 Methodological Approach

The research used a combination of qualitative and quantitative methods, with the use of interviews and a survey being considered to be the most appropriate choices to address the research questions. Scientific realism advocates the use of experimental or observational approaches where experimental manipulations cannot be run, such as in the case of astronomical phenomena (Hacking, 1983). However, given the need to understand human interaction in the real world, laboratory experiments would not be appropriate as the findings may not accurately indicate the interactions between the individuals and the context in which they operate. Observation of the participants in work and life might not reveal unseen influences, such as feelings and cognitions. A mixed methods approach employing semi-structured interviews which then informed the development of a need satisfaction scale (Creswell, 2009; Oppenheim, 2001) to further test the associations between need satisfaction in both work and life and wellbeing was considered to be an appropriate approach. This is similar to the approach used by Milton, Watkins, Studdard, and Burch (2003, in Plano Clark and Creswell, 2008) which used 11 semi-structured interviews to determine the development of items for a survey which was then tested on 131 respondents.

The strategy uses qualitative and quantitative methods to address different research questions or hypotheses (Cresswell, 2009). The use of both qualitative and quantitative methods also allows a comprehensive understanding of a situation (Miles and Huberman, 1994) and this approach was used to both explore the contextual enablers and challenges on need satisfaction (qualitative data) and the associations between need satisfaction in work and life and wellbeing (quantitative data). The focus on understanding the relationships between need satisfaction across work and life and wellbeing, as well as confirming the need scale, meant that it was more appropriate to place the focus on the quantitative method in the study.

The interviews addressed Research Questions 1, 4 and 5. They considered the needs which are important in work and life (RQ 1) and the enablers and challenges to

satisfying these needs (RQ 4 and 5). The survey also considered Research Question 1 by testing the work and life needs which are important. A sequential exploratory strategy can be followed which uses qualitative data to design an instrument (Cresswell, 2009). To address Research Question 1, this strategy was followed using interview data to inform the development of a survey instrument which measured need satisfaction. In addition, the survey addressed Research Questions 2 and 3 which ask whether there are associations between work-life orientation and need satisfaction and whether these are associated with wellbeing. In addition, the effects of career stage, age or gender on the ability to satisfy needs in work and life are also considered.

The use of a mixed methods approach may be subject to epistemological tensions (Sale, Lohfeld, and Brazil 2008). However, the realist view that qualitative research can be used to identify an objective reality (albeit one which interacts with agency) (Ackroyd, 2009), suggests that the methods are compatible (Howe, 1992). However, the combination of using interviews and a survey allows for a more comprehensive understanding of the data to be gathered.

The review of the literature in Chapter 2 highlights the lack of empirical support for need theories outlined by Finnis (2011) and Maslow (1954/1987) and of the limitations of Self-Determination needs (Ryan and Deci, 2000), indicating the requirement to develop a comprehensive need framework. There is also a limited understanding of how needs should be satisfied across work and life (Matuska and Christiansen, 2008) and the effects this may have on wellbeing. This suggests that the exploratory nature of this mixed methods approach is appropriate to the study, in relation to identifying the need variables, with the qualitative methods allowing for a consideration of contextual influences and the quantitative methods providing an insight into the relationship between need satisfaction and wellbeing (Creswell, 2009). The literature also suggests that the ability to satisfy needs in work and life may be enabled or challenged by the context in which an individual operates (Deci and Ryan, 2012). Career and life stage of the individual may also impact on need satisfaction (Van den Broeck et al., 2008; Vansteenkiste et al., 2007; Schaufeli and Bakker, 2004; Kasser and Ryan, 1996).

It is useful to consider how individuals' needs are realised in a real-life context, and to gain an initial understanding of which needs emerge as important, how this relates to wellbeing and how other contextual influences prevent or support this satisfaction. Since both need satisfaction and wellbeing are cognitive and affective processes and cannot be directly observed, asking individuals about their experiences using an interview method is considered to be useful. Collier (1994) indicates the importance of listening to the accounts of the actors, while Archer (1998) argues that social structures can be revealed through the accounts of agents even though the narrative approach can be problematic in obscuring the causal relationships beneath the story itself (for example, chance may be confused with causality) (Sayer, 2012) and the actors' accounts may not reflect reality (Collier, 1994). It is difficult to argue that a comprehensive understanding of needs and wellbeing could be ascertained without listening to the people that experience them, although caution needs to be applied to the interpretation of any qualitative accounts.

4.4 Interview Methods

Interviews with three different groups (current teachers, retired teachers and stakeholders) were chosen to conduct an initial analysis of the needs that teachers are able to satisfy in work and life which may be associated with wellbeing. A modified life-history approach was selected as the best means of understanding teachers' and retired teachers' experiences in work and life, with semi-structured interviews being used for the stakeholder interviews. The purpose of these interviews was to establish whether the needs outlined in the review of the literature could be seen empirically and to inform the development of survey items which would then be tested on a wider range of respondents (Research Question 1). The second purpose of the interviews was to establish any challenges or enablers which might affect the ability of teachers to satisfy needs (Research Questions 4 and 5).

The teacher and retired teacher interviews provided insight into the experiences of individuals in relation to the needs that they satisfied in work and life over the course of their career, along with the challenges and enablers which the individuals encountered in both domains. The stakeholder interviews allowed further consideration of the needs which teachers attempt to satisfy and what enables or

prevents this. They also provided an additional contemporary perspective of need satisfaction, enablers and challenges.

The interviews were designed to consider the broad goals and choices which individuals make in relation to their wellbeing and success. It also considered the enablers and challenges to these. The focus of the research was then narrowed to consider the needs that might be satisfied by these goals and the enablers and challenges to these. This utilised a flexible research design which involved monitoring the process of research and refining the research questions in relation to the emerging data (Robson, 2002). This narrowing provided greater focus in relation to designing the survey in the second phase of the research. It is argued that despite the wider focus on goals and choices in the interviews, goals which are intrinsic are likely to be satisfying needs (Neimeic, Ryan and Deci, 2009) and it was expected that this would be evident in the interview data.

4.4.1 Interview Participants and Procedure

Ideally, selecting respondents for interviews should be both practical and provide high quality data (Saunders, Lewis and Thornhill, 2007). Non-probability sampling means that statistical generalisations cannot be made, but this approach can be used to address certain research questions (Saunders et al, 2007). In addition, opportunistic and snowball sampling are both appropriate means of identifying subjects for life history interviews (Miller, 2000; Atkinson, 1998). These approaches were used for practical purposes, but were constrained by specific criteria related to age and work location.

Teachers and retired teachers were selected to be in the latter stages of their career to provide sufficient scope to consider how different needs may have been satisfied at different points in their lives. They were also restricted to a single local authority to ensure they were exposed to similar contextual processes such as development opportunities. A similar education system is used throughout Scotland and the authority was chosen as it was considered to be broadly typical in relation to other authorities in the country. Further consideration is given to the selection of teachers and retired teachers in relation to age and school location in section 4.4.2.

Stakeholders were selected to provide an alternative viewpoint to the teachers and retired teachers' experiences and to provide an insight into whether the emerging data would be relevant to teachers in other authorities. One group of stakeholders was selected to provide a local perspective. The second group was selected to provide a broader Scotland-wide perspective. While the participants each met these criteria, they were selected using opportunistic and snowball approaches for practical purposes.

The selection strategy had limitations due to small numbers of participants. There was also a potential lack of representativeness which resulted from the type of selection approaches used (Saunders et al, 2007). However, the purpose of the interviews was to explore the experiences of typical Scottish primary teachers. It is therefore argued that while not ideal, the small selection was acceptable.

Teacher and retired teacher interviews

For the teacher and retired teacher interviews, 12 interviews were conducted with primary teachers and primary head teachers between June 2011 and January 2012. Each respondent was in the latter stages of their career or had retired. The interviewees either worked or had worked in a local authority in Scotland. One local authority was approached and access to working teachers was agreed and recruitment was conducted via a letter to all primary head teachers, along with a poster which asked for respondents. Personal contacts were also contacted directly and asked to participate. Those who knew of other potential interviewees either passed on the researcher's details for the interviewees to make initial contact or introduced the researcher to the potential interviewee. No restrictions were placed on the type of school (e.g. location, size etc.) that the participant worked or had worked in. However, interviewees were restricted to certain attributes (i.e. 46 – 65, male, female, head teacher or non-promoted teacher).

Two teachers initially volunteered to participate in the research but did not respond again after receiving the initial information. Five working teachers were interviewed in total. Five retired classroom teachers and two retired head teachers were identified.

The interviews were piloted on a retired head teacher and a retired classroom teacher and included in the study. Changes were made to the questions on wellbeing as a result. Questions about specific types of wellbeing were not asked directly in the first interviews but were added to the interview script as, while it was possible to interpret incidences of wellbeing, it was deemed useful to capture the interviewee's own opinions on each aspect of their wellbeing. For each critical incident, the participant was prompted to comment on the emotions, life satisfaction and meaning which were associated with that event, rather than just their wellbeing overall. The interviews aimed to take two hours, but on three occasions, the respondents were only able to meet for one hour. The interviews lasted 1.6 hours on average. The respondents were all female and their ages ranged from 51 to 64. Their tenure in teaching averaged at 32.21 years. Of the seven retired teachers, two had retired prior to the introduction of the new curriculum in 2006, but had still been part of other major changes taking place over the last decade in Scottish education.

Stakeholder interviews

Interviews were conducted with 11 stakeholders between September 2011 and November 2011. This was to provide additional perspectives to the teacher and retired teacher interviews, as well as to consider whether similar experiences might be found in other authorities. The stakeholders were selected in two ways. For the local authority, the person who acted as the main point of contact was approached and asked if any local authority staff would be interested in being interviewed. A snowball selection approach was also utilised, in addition. For the teaching organisation, a professional contact was approached who then provided access to other participants in the organisation. Selecting on the basis of convenience was used as a practical approach. This strategy was not ideal, but was considered acceptable as the interviewees all have similar backgrounds as teachers and the interviews were exploratory in nature (Saunders et al., 2007). A pilot was conducted on one stakeholder and included in the study. The interviews lasted between 30 minutes and one hour, with most lasting around 45 minutes. In total, eight women and three men were interviewed.

The interviews took place in a range of locations, although mainly in homes or offices. One interview took place in a local coffee shop, and while the quality of the

recording was affected in places, the respondent appeared comfortable talking in this setting. No difference in willingness to answer the questions was noted between those who were interviewed in their homes or offices, although the interviews tended to last longer when conducted in the respondents' homes. The relaxed setting may have encouraged the respondents to spend longer in the interview. For each interview, the data was recorded using a digital recorder and additional field notes were taken.

4.4.2 Modified Life History Method: Teachers and Retired Teacher Interviews

Aristotelian theory suggests that satisfaction of needs accumulates over time (Hughes, 2001), and therefore benefits from a method which is able to indicate how the choice of need satisfaction might alter over time, particularly where life and career stage or contextual enablers and challenges change. The Life History approach allows for a consideration of the historical context and social relationships in which individuals operate (Goodson, 1985; Miller, 2000), but also focuses on the individual choices and desires of the subjects (Hakim, 2000). Although the life history approach usually considers a person's life from 'the totality of a person's experience' (Bertaux and Kohli, 1984: 217), it can also consider the relevant segments of a person's life (Bertaux and Kohli, 1984) which makes this an applicable method for the study of a teacher's work and life during the course of his or her career. The life history method is seen as being a useful approach due to its ability to produce data which shows how individuals have chosen actions which satisfy needs over time. It consists of interviews which focus on a large part (if not all) of a person's life, allowing for the consideration of the contextual influences on the actions of the individual being studied (Armstrong, 1987).

The approach was modified to fit both the realist research philosophy and the practical requirements of the study, rather than adopting the traditional constructionist philosophy that often underlies life history interviews (Antikainen, Houtsonen, Huotelin and Kauppila, 2006). This study also places a stronger emphasis on the workplace and focuses on the span of each interviewee's career. The term life history is therefore defined as including all domains of life, of which work is one. This approach is useful when used within exploratory research in relation to building an initial conceptual understanding of the situation (Armstrong, 1987) and

allowed for a more comprehensive consideration of what had prevented or supported individuals to be ascertained. The approach also drew from narrative methods used in the teaching literature on working lives (Day et al., 2007; Huberman, 1993; Kelchtermans, 1996). These approaches have a strong focus on teachers' accounts of the workplace but also bring in aspects of personal lives, such as interactions that work has with life and personal values (Day et al., 2007). A method which places equal focus on the professional and personal lives of teachers is required to investigate both the work and life aspects of Research Questions 1, 4 and 5.

Life history methods often assume that an individual's view of reality is subjective, with narratives analysed for meaning and symbolism (e.g. Antikainen et al., 1996; Goodley, Lawthorn, Clough and Moore, 2004; Armstrong, 1987), and this approach overcomes the potential criticism of 'wrongly' remembered accounts of an individual's life. However, Miller (2000) suggests that a realist approach can be taken to the life history method which allows for the analysis of life histories against a pre-existing conceptual framework. This approach enables interactions between the actor and theory to be assessed, as well as capturing any changes that take place over time.

Life history approaches can vary from in-depth investigation into a single subject to the use of multiple life histories to enable patterns to be inferred within the particular socio-cultural context which the individuals share (Bertaux and Kohli, 1984). The use of multiple life histories is limited by the lack of detail that can be obtained, but this approach offers greater opportunity for moving towards explanations with external validity (Armstrong, 1987). While there is no such thing as a 'typical' life story, similarities can be identified between the stories of different individuals and themes drawn from these (Armstrong, 1987).

This study opted to use multiple life histories for two reasons. The first was to identify patterns which could be used to build the survey items which could then be tested on a wider population. The second was a practical one whereby a decision was taken not to conduct multiple interviews with each person due to the expectations that teachers would not be prepared to devote this time. Given that workload is an issue for teachers, it was not expected that they would be willing to spare more than a

few hours. Although retired teachers were expected to have more time, the interviews were also restricted to a single session to ensure they were comparable with the working teacher interviews.

Both Goodson (1985) and Antikainen et al (1996) encourage the grouping of life history subjects by age or generation and the 'baby boomer' generation (Evandrou and Falkingham, 2000) was chosen for this study. A birth cohort can have characteristics that are specific to that generation and which may affect how they interact with their environment (Riley, Foner, and Waring, 1988). For example, Wong, Gardiner, Lang and Coulon (2008) cite various studies which show that individuals from different generations have different expectations about what they want to get from the workplace as a result of the particular set of traits which each generation shares. In addition, life history studies which involve teachers, such as those by Kelchtermans (1993) or Kelchtermans and Ballet (2002), use career stage to select a homogeneous group of participants.

This approach may result in patterns which cannot be found in other age groups as different generations may experience the social world in different ways. However, restricting respondents to a single generation means that differences in need satisfaction approaches or wellbeing which may have resulted from generational differences can be discounted. The effects of a shared socio-cultural environment is likely to affect the particular generations (Macky, Gardner and Forsyth, 2008), meaning that contextual factors are likely to make a difference. There are indications from recent studies that needs will not always differ significantly across generations (Real, Mitnick and Maloney, 2010; Cennamo and Gardner, 2008; Wong et al., 2008), suggesting that the desire to satisfy needs will be similar to other generations. This allows for the effects of individual experiences to be more easily considered, by removing potential effects of age or life stage (Cennamo and Gardner, 2008).

The socio-economic context in which the workplace is located may affect the extent to which a teacher is able to satisfy his or her needs. However, the interview approach spanned the entire career of the teacher which meant that their roles in different schools were discussed. This meant that the need to select teachers in schools located in certain areas was not necessary. Other school-specific attributes

such as size or culture was also less necessary as a selection criteria. As a result, no attempt was made to select respondents by school. Instead, the respondents were able to describe the varying effects on their wellbeing that they encountered from working in different schools across the duration of their career.

The teacher and retired teacher interviews explored the point from when the individual first entered teaching, with the interviewee asked to identify four critical incidents at the beginning of the interview to set the scene and think about the timescale between the points when they entered teaching to the present day. The critical incidents were a useful means of identifying periods in a person's life when they might have had support or challenges which aided or prevented them from satisfying needs. The consideration of critical incidents fulfilled three purposes. The first was to identify needs which individuals seek to satisfy. Kelchtermans and Vandenberghe (1994) indicate that critical incidents are the point at which a person will make important decisions which will shape his or her life. The 'disruptive' change (Kelchtermans and Vandenberghe, 1994) which this facilitates may provide the elements of psychological growth (Deci and Ryan, 2000) and self-improvement (Norton, 1976), the conditions which are likely to lead to the satisfaction of needs. This was therefore considered to be particularly important points within the life narrative to consider. The second purpose was to consider how contextual enablers or challenges might have supported or prevented choices to satisfy needs during these events. Thirdly, the critical incidents in work and life could be disruptive to the point that they caused interference in the other domain. This allowed a greater understanding of how work and life interact to fulfil needs. Saunders, Lewis and Thornhill (2007) also indicate that this approach helps to focus on concrete examples which avoid the risk of discussions which are vague and ambiguous in relation to the topic.

The interviewee was given a sheet to mark the event, where it lay on a timescale between starting their career and the present day, and how high or low the event was in terms of it being a positive or negative event. There was no requirement to provide either life or work events; the choice was left to the interviewee. A number of interviewees remarked that their careers did not consist of either very positive or

negative events and that the main positive and negative events took place in their non-working lives.

4.4.3 Justification of Teacher and Retired Teacher Interview Questions

The interview questions (see Appendix 1 for full protocol) began with asking the individual to describe their decision to become a teacher. This follows similar approaches to Huberman (1993) who looks at the individual's decision to teach and if he or she would make the same decision again. The purpose of this question was to explore the motivations for choosing this particular career. It also allowed an assessment of whether there were expectations that teaching would satisfy certain needs at the point of entry and beyond. The individuals were then asked to describe any enablers or challenges to fulfilling their intentions which addressed research questions four and five that consider factors which prevent or support the satisfaction of needs. In addition, there was a question which asked whether the individuals would change anything about their intentions. The purpose of this question allowed a consideration of whether they had any unsatisfied needs which could have been addressed through alternative activities and choices.

The interviewees were then asked to describe each critical incident they had chosen and to explain why it was significant. This allowed the satisfaction or prevention of needs in relation to this incident to be identified. Indicating how it came about allowed a consideration of whether there was a deliberate attempt on the part of the individuals to satisfy certain needs. The interviewees were then asked whether there were challenges which prevented them from achieving the outcomes as they expected. There was also a question about the effects that the critical incidents had on the participants' career. This question was particularly useful when the critical incident was a personal one, to allow an insight into how the event may have affected the work domain. This was followed by a question about their experience of emotions and life satisfaction in relation to the event. A question was then asked if they would change anything about how they approached this event, allowing an investigation into whether the desired changes may have led to different or more needs being satisfied.

The final part of the interview focused on the meaning in life which the events contributed to, asking 'Considering all the events we have discussed so far, in what ways (if at all) have they contributed to any meaning in life or search for meaning?' along with an indication of whether the individuals considered their role to be a vocation. This was followed by an exploration of how their values align with career and life to consider whether desired needs were different in different domains and if these changed over time. Given that needs are basic sets of values (Alkire, 2005) this was considered to be appropriate. Questions about what the individuals valued in life and career allowed important needs to be identified. The interviewee was also asked about how their values aligned with those of their school and if they had values which they would not compromise. This considered potential enablers or challenges to satisfying needs in relation to school values and the needs which were of particular importance to the individuals.

Finally, the interview ended with a consideration of any changes that the individuals would have chosen to make in their life, asking, 'Would you change anything about your intentions for your life as a whole?' with a focus on any competing intentions. This considered any unsatisfied needs but also allowed the individual to identify where conflicts in goals may have prevented or supported the satisfaction of their needs. The interview ended by asking the participants to reflect on how fair a picture they had given of themselves along with their feelings about the interview, to provide an opportunity to raise any additional points or concerns about the interview.

In order to support the interview data, additional tests (i.e. the life satisfaction (Diener et al., 1985) and PANAS (Watson, Clark and Tellegen, 1988) scales), were administered to the teachers and retired teachers, to help further refine the analysis of their interviews. The PANAS questionnaire was developed by Watson et al (1988) and is used to assess affect, with teachers and retired teachers asked to consider their level of affect in general. It contains a set of emotion words such as 'interested' or 'distressed' and asks respondents to indicate how much they generally feel this way using 1 as 'very slightly or not at all' to 5 as 'extremely'. Watson et al (1988) argue that positive emotions and negative emotions are two separate constructs and the scale therefore measures both types of affect. The Life Satisfaction Scale (Diener et

al., 1985) was also completed by each of the teachers and retired teachers. Statements such as 'in most ways my life is close to my ideal' were rated on a Likert-type scale where 1 is strongly disagree and 7 is strongly agree[1].The participants were also asked about meaning in life. They were provided with three options: I have meaning in life, I do not have meaning in life, I do not have meaning in life and do not seek it. The questionnaires were used within each individual case, and not combined across cases (Yin, 2003). These scales allowed the overall wellbeing of each participant to be compared with their individual interview accounts to triangulate the participants' assessments of their own wellbeing. The scales were compared to the interview findings on an individual basis and were not used as an additional quantitative phase.

4.4.4 Stakeholder Semi-Structured Interviews

Stakeholder interviews were conducted to gain an understanding of the context in which the teachers and head teachers operate and to triangulate the data from the teacher interviews using a more traditional form of semi-structured interviewing. Stakeholders can be anyone who has an input into the decision making process (Hakim, 2000) and stakeholders in this study are people who are involved in developing changes which are taking place at a local authority level or in Scottish teaching as a whole. The purpose of the stakeholder interviews was to gain a broader understanding of the issues which are affecting teachers in relation to their need satisfaction and wellbeing. They added support to the findings from the teacher interviews to consider whether these findings can be confirmed by the stakeholder accounts. The stakeholder interviews also provided an additional perspective on what needs may be important to teachers, the extent to which they fulfil those needs and the impact this has on their wellbeing.

Given that the stakeholders had all been teachers at some point in their career (and in some cases head teachers), it was expected that they would be able to relate to the experience of the teacher, but also provide additional insight from a more central perspective. This dual perspective allowed for a better consideration of the basic needs which should be considered within the work and life domain (Research

1.   The Life Satisfaction Scale is discussed in more detail in section 4.5.5

Question 1) as well as the enablers and challenges which explain why satisfied needs are achieved or maintained (Research Questions 2 and 3).

4.4.5 Justification of Stakeholder Interview Questions

The interviews consisted of a set of questions which considered what a successful teacher and head teacher looked like as well as what contributed to their wellbeing. It is expected that teachers who are successful are likely to have demonstrated actions which satisfy their needs (Baard et al., 2004). In addition to this perspective, the stakeholder interviews also considered what teachers' intentions for their career were. This enabled the identification of actions which could indicate attempts to satisfy needs. It considered some of the challenges which could have prevented them from being able to satisfy needs, asking, 'Is there anything that prevents classroom teachers from achieving their intentions?' The questionnaire also asked about teachers' and head teachers' work-life interactions to consider enablers and challenges which could stem from the interaction between the work and life domain. Wellbeing was considered using the term 'happiness' in the question 'What makes classroom teachers happy?' Using happiness as a layperson's term for wellbeing can be seen in the use of the word happiness in mainstream books such as *Authentic Happiness* (Seligman, 2002) and it was deemed to be a more appropriate term than wellbeing as it would be more familiar to the interviewees. Vocation was also considered at this point with questions such as, 'What brings meaning to their career or lives, i.e. gives them a sense of vocation?' and allowed the identification of any needs which facilitate meaning.

Enablers and challenges were considered by asking the question, 'Thinking about teachers and head teachers who are aged between 46 and 65, what do you think the main changes have been to the environment in which they teach now, compared to previous teaching environments they have worked in?' This question allowed the consideration of how different needs may have been enabled or constrained over time. The final part of the interview considered the values which teachers might hold (again, needs are a basic set of values (Alkire, 2005)) and how these were aligned to school and curriculum values (which could enable or challenge personal values). Finally the participants were asked if there was anything else they would like to add in relation to the goals, success and happiness of teachers. This was a general

question designed to capture any additional information that the participants felt was relevant but which had not been captured by the previous questions. The interview schedule can be found in Appendix 2.

4.4.6 Ethical Implications of Interviews

The subjects were provided with informed consent forms and with copies of their transcripts (some pre-sorted by theme), to give them the opportunity to review them. In the transcripts pseudonyms were used, and the names of schools removed to ensure anonymity. It was important that participants did not talk about any topics which they were not comfortable with, particularly in the life history-type interviews. Miller (2000) suggests establishing any topics which the individual does not want to talk about at the start of the interview. This could be problematic in itself as it still required the subject to state which topics they did not want to talk about, so instead it was explained that they should not feel obliged to answer any questions which they felt were too intrusive.

While the life history-type approach does not manipulate the participants in the same way as an experiment might, it still has some ethical implications which must be considered. For example, Lister-Ford (2002: 54) indicates that the use of phenomenological recall can lead to unbinding, which she defines as 'the freeing of emotional energy which is currently "locked" or stored away in an ego state'. There is a risk that, by talking about experiences from the past, memories and emotions can be released which may be painful and unwanted by the subject of the study. This could happen either as a result of the questions being asked or by a voluntary response from the individual. However, there is also the possibility that by participating in telling their stories, the subjects are able to make sense of their experiences, perhaps benefitting from the insights that they gain (Armstrong, 1987).

A question was asked at the end of each teacher and retired teacher interview which asked, 'What are your feelings about this interview and all that we have covered?' This ranged from comments indicating that their feelings about the interview were ok, for example one respondent said, 'Aye it was fine, aye. To get somebody to listen to your moans and groans.' with another saying, 'Oh, I quite enjoyed doing it.' to more general concerns over whether the respondent had talked too much or had

provided the 'right' or 'wrong' answers. Measor (1985) highlights the need to establish a relationship that involves trust but also distance between the researcher and the subjects and highlights the risk that the subject might say what they think the researcher wants to hear. As a result, the interview introduction was modified to highlight that there was no right answer but that the questions were looking for the personal experiences of the respondent.

4.4.7 Data Coding

The teacher and retired teacher transcripts were initially organised into broad themes which considered aspects such as career developments, how goals were set and achieved across work and life, how intentions had changed, been unfulfilled or were supported or prevented by others or circumstances, accounts of wellbeing and whether work was viewed as a vocation. The scores from the wellbeing questionnaires were also included in each profile to enable an understanding of the current wellbeing of each participant. This allowed an initial overview of each individual to be made to enable a broad understanding of each person's story, to 'get a sense of the whole' for each interview (Creswell, 2009). Miller (2000) suggests that the interviews should then be analysed in relation to the theory and where there are aspects that do not fit with the conceptual framework, new concepts can be generated.

The teacher, retired teacher and stakeholder interviews were then analysed thematically using NVivo software. A set of 10 needs had been established from the literature (see Table 1, Chapter 2), which allowed initial coding categories for needs to be established prior to analysis (Miles and Huberman, 1994). Examples of actions which were important or carried out for their own sake were identified for each theme, following Neimeic, Ryan and Deci's (2009) assertion that intrinsic goals are likely to satisfy needs. Two additional themes emerged during this process and these categories were added to the analysis. A comparison was made for each of the needs which had been identified. Matrices are useful to allow a comparison to be made both within and across subjects, to identify similarities and contradictions (Saldana, 2012). Hakim (2000) highlights the need to include any conflicting views in the design of a research study and the consideration of conflicting data allowed for the survey variables to be developed in a way that accounted for varying views from the

respondents. While this approach was limited in its lack of consideration in relation to any structural or mechanistic causes of these needs (Sayer 2012), it was considered useful to identify needs which were salient to a group of teachers and which could then be included as variables in a survey to be tested on a wider sample of teachers.

Research questions 4 and 5 required thematic analysis of the interviews in order to identify challenges and enablers in work and life. Again, the literature pointed to key themes which could be salient and which were used as initial categories. The themes were then combined into broader categories. For example, flexibility of the job and the intensity of the job were included under the category of 'support of and supporting others in life' due to the impact these appeared to have on satisfying family needs. Changes in children's behaviour and changes in the curriculum were grouped under the category of 'dealing with change at work'.

The teacher and retired teacher content for the challenges and enablers was compared to contemporary reports which helped to establish connections between the teachers' accounts and contemporary analyses of the work context. This allowed comparisons to be made between the teachers' recalled experiences and accounts from the time. Finally, the accounts of the stakeholders and teachers and retired teachers were then compared to establish patterns, as well as to identify any differences or disagreements in the data (Cresswell, 2009). The comparison was conducted using matrices (Miles and Huberman, 1994), which captured examples used to exemplify each theme. The examples for each group were compared against one another.

4.4.8 Limitations of the Interview Methods

There are limitations of the interview methods which require to be considered. One limitation of the life history-type approach is the lack of generalizability to the population of Scottish primary teachers. The group of research participants was small and was deliberately restricted to certain ages and roles and, while this meant that individual differences would not be confounded by the effects of age or experiences such as education, the interviewees were not representative of the wider population. In relation to Table 3 (see section 4.5.1) which shows an overview of the demographics of the population, the interview participants were not representative of

age, first line management roles (depute and principal teachers) and had no male participants. The low number of interviewees and the way in which they were identified (convenience and snowball approaches) was a limitation, but the interviews were considered sufficient to explore the needs which Scottish primary teachers might seek to satisfy. The group of participants put forward individual cases which provided insight into the needs which teachers may choose to satisfy and the challenges and enablers which they experienced. Triangulating these findings with the stakeholder perspectives also helped to support the findings and suggested they could be appropriate to subject to wider testing using the survey.

The interviews were relatively short and a decision was taken not to conduct follow up interviews. This meant that the richness normally found in life history research was not available. By using a semi-structured and time-bound approach, there was less opportunity for the interviewees to discuss aspects of their life and career which were most important to them. However, this approach minimised the amount of time required from people who had limited time to be able to devote due to the pressures of their job.

It is also important to consider the biases that the individuals may introduce to the data. One of the challenges with using the life history type method is that the subject may not remember the events exactly as they happened. For example, Kahneman has shown that measures of affect are less accurate when done retrospectively rather than as they happen (Kahneman and Kreuger, 2006). Berntsen and Rubin (2002) have demonstrated that adolescence until the age of 25 is remembered more clearly than childhood and that negative events tend to be excluded from biographical accounts. However, it is argued that remembered experience is important in relation to an assessment of current wellbeing. For example, Maslow (1971/ 1993) indicates that an individual's view of the past can contribute to his or her sense of self, depending on how they choose to remember and the extent to which they take responsibility for events. This suggests that while there are issues that can arise when considering the 'truth' of the life history, how the person remembers their life history may provide useful explanations of their wellbeing.

Antikainen et al (1996) also raise the challenge that by making the choices about which narratives to include, the narrator may selectively edit key stories. Social desirability may also mean that the interviewees are selective about which information they provide and are conscious of how they are being perceived by the researcher (Saunders et al., 2007). Comparing the teacher and retired teacher interviews with the accounts of the stakeholders again helped to mitigate this limitation. In addition, comparing the findings of the interviews to the changes to Scottish education outlined in Chapter 3 also supported the interviewees' accounts with the reports which were written at the time which captured teacher opinions and experiences. This assisted the researcher in interpreting the respondents' interpretation of the events (Danermark et al., 2002) by triangulating their accounts against the historical documents.

There are a number of ways in which the values of the researcher may influence the outcome of the interviews. Preconceived ideas about the teaching profession and the kinds of values that an individual should have could also interfere with the results of the research and using existing theoretical concepts may be the best approach to help minimise value-laden definitions of need satisfaction or wellbeing (Robson, 2002; Jarviluoma, Moisala and Vilkko, 2003). This can be done through the way in which the researcher asks the questions, body language or comments that they might make during the interview (Saunders et al., 2007).

Although the life history type method gives the respondent an element of control over the stories which are told, the act of assigning parts of a coherent story to a conceptual framework may also involve researcher bias as a result of the reorganisation of the life stories to fit the framework. Armstrong (1987) highlights that, by breaking down the stories, the researcher creates a power relationship over the subjects as the analysis is inevitably the creation of the researcher. The realist approach allows for this power differential by indicating that the researcher will extract an understanding of the underlying reality that cannot be seen by the individuals (Danermark et al., 2002). Other power dimensions involved may also be a factor (Robson 2002; Armstrong, 1987). For example, the researcher will rely on

the goodwill of managers in the local authority for access to subjects and may need to satisfy the expectations of opposing groups who have different agendas.

4.5 Survey Methods

The interview stage was conducted to allow the participants to describe need satisfaction and the enablers and challenges to this. One purpose of the interview findings was to provide evidence for the needs identified in the literature. Those needs were then used to develop need statements in the survey. The survey aimed to confirm the importance of these needs on a representative sample of teachers (Research Question 1). The survey also aimed to test the associations between need satisfaction in work and life and wellbeing. It is argued that a balanced work-life orientation may allow needs to be satisfied to result in greater levels of wellbeing (Research Questions 2 and 3) and the survey was designed to test whether or not this was the case.

In addition, the survey helped to address some of the limitations of the interview approach. The first was a means of testing the hypotheses on a representative sample of teachers. The survey also focused on a current assessment of needs and wellbeing, moving from the retrospective accounts of the life histories to a present day view as well as allowing a clear association to be established between need fulfillment and wellbeing. Testing these associations using calibrated scales provided a stronger indication of whether there was a relationship between need satisfaction and wellbeing. Finally, there was a wide range of needs which could be identified from the literature and interviews, and the needs which were most important to individuals needed to be identified in order to understand the choices which impact on wellbeing.

The survey (see Appendix 3) was developed to test the needs which had emerged from the literature and interview findings. It was also considered an effective method to test the associations between need satisfaction in work and life and wellbeing. The survey was therefore used to confirm the basic needs with a wider population (Research Question 1) and establish any associations between work-life orientation and need satisfaction (Research Questions 2 and 3) and test the Hypotheses 1-3 (see section 2.10 for summary of hypotheses).

Hypothesis 1a and b investigates the need variables which were identified using the literature and the exploratory interviews. Hypothesis 2 a - c investigates the associations between work-life orientation, need satisfaction in work and life and wellbeing (affect, life satisfaction and meaning in life). Hypothesis 3 a - d investigates the effects of promotion, tenure, age or gender on need satisfaction, wellbeing and work-life orientation.

4.5.1 Survey Sampling

There are a number of approaches that could have been taken with regards to sampling for the survey. Fink (2003) indicates the importance of using sampling to minimise the number of individuals who need to participate in the survey, as well as ensuring that it is still representative of the overall population. One approach would be to obtain a random sample of primary teachers across Scotland and survey each of them (Creswell, 2009). However, this was not feasible given the lack of access to staff lists and emails for all teachers in Scotland. A second approach would have been to contact bodies such as Her Majesty's Inspectorate of Education (HMIe) or the General Teaching Council to request that they promote the questionnaire by posting the link on their website. While this approach would potentially reach a large number of teachers, there would be less scope for making direct contact with schools for recruits.

The approach chosen was to contact a selection of local authorities and ask their permission for a link to an online survey (using Qualtrics survey software) to be sent out to all primary teachers in their authority. Given the risk that lack of respondents increases when using web-based surveys (Mertens, 2010) and the possibility that some respondents might not be comfortable using the internet (Fink, 2003), a paper version was developed to provide to schools. In addition, teachers themselves are often more concerned with the wellbeing of the children and young people that they teach (Dunlop and Macdonald, 2004) and there was the possibility that the potential interviewees could be too focused on the job at hand to participate in the study. However, it was felt that given the access limitations, the approach taken was the most appropriate.

An attempt was made to contact all teaching staff in primary schools in five local authorities. This was a potential sample of around 4600 potential respondents and was approximately 20 percent of the primary teaching population in Scotland (Scottish Government, 2012a). However, as contact was made through head teachers or the local authority, not all staff may have received the request. In addition, one authority only granted access to a single cluster of schools. Respondents were taken from the population on the basis of those who were prepared to respond to online and paper requests.

The population who were invited to respond was required to fit the following criteria:
- Registered teacher
- Teaching in the primary sector (can be promoted or non-promoted)
- Teaching in a primary school in one of the five identified local authorities.

It was not possible to identify the actual number of individuals who received the survey as contact was not made directly. This meant that the response rate could not be determined. However, ensuring that the sample of teachers who participated were representative of the population (Fink, 2003) was possible. Table 3 indicates the breakdown of the Scottish population of teachers in primary schools and the demographics of the teaching population are taken from the Summary Statistics for Schools in Scotland (Scottish Government, 2012a). The figures in Table 3 can be contrasted against the profile of respondents (shown in Table 4, Chapter 4) to consider how reflective the responses are of the population of Scottish primary teachers. A comparison of the Scottish teaching population in relation to the survey sample is discussed in section 4.5.3. In 2012 there were 22, 732 primary teachers in Scotland.

4.5.2 Contacting the Local Authorities, Head Teachers and Participants

Various approaches were used to contact each authority, based on the access permissions given. Teachers in four authorities were contacted via email to head teachers. In one of the authorities access was only granted to a cluster of primary schools. In the fifth authority, a request was posted in an internal newsletter. A reminder was sent out to each authority by the same means as the original method of contact. The timing of the survey coincided with the month leading up to the end of

the summer term. Interview respondents talked about this being a particularly busy time for teachers, which created a risk of fewer respondents.

Table 3 Description of teachers' demographics (Scottish Government, 2012a)

	Group	Percentage
Gender	Female	91
	Male	9
Age	Under 25	6
	25 – 34	28
	35 – 44	22
	45 – 54	24
	55 or over	19
Role	Head Teacher	8
	Depute Head Teacher	5
	Principal Teacher	7
	Teacher	79
Working Pattern	Full time	85
	Part time	15

The electronic survey did not generate a large number of responses where participants were contacted through email via head teachers. The highest response in relation to the number of potential respondents came from a local authority where access had only been granted to a cluster of primary schools. It is possible that the personal contact that that researcher had with each of the head teachers, along with visiting the school (where allowed by the head teacher), increased the number of teachers willing to participate. The online survey had initial technical issues in two authorities which prevented participants from accessing it. This was rectified and potential participants who had emailed to raise this issue were subsequently contacted when the link became accessible in primary schools. However, these

technical issues may have discouraged potential participants from completing the survey.

As a result of the low response rate to the online survey, two local authorities were contacted to ask for permission to approach schools directly with paper copies. With around two weeks remaining before the end of term, the researcher contacted as many schools as possible. This was done by dividing the number of remaining days between the two authorities. Areas within the authorities were pre-selected to cover diverse areas of the authority and within each chosen area schools were visited using postcode order. Each school was asked if a member of staff could fill in a survey. No guidance was offered as to who that person needed to be apart from them having to be a registered teacher. The majority of schools agreed to accept a copy of the survey. Time constraints meant that not all schools within the authorities could be contacted and refusal to accept a survey increased somewhat in the final few days of term. Therefore convenience sampling was used in the latter stages of the research which carries the risk that the sample will not be representative of the population (Creswell, 2009). Seventeen surveys were started online but were not completed and therefore rejected. In total 174 usable surveys were completed and 60 percent of these were online responses. Online, the survey took an average of 15 minutes to complete, as indicated by the survey software.

4.5.3 Overview of Survey Respondents

Table 4 provides an overview of the demographic information provided by the respondents. The survey sample is small in comparison to the overall number of teachers. However, the distribution of respondents (see Table 4) is approximately comparable to the overall Scottish teaching population (see Table 3). Respondents consisted of 15 men and 158 women. One person did not provide data on gender. Females made up 90.8 percent and 8.6 percent were males, which is roughly representative of the entire teaching population (See Table 3) where 91 percent were females and 9 percent were males (Scottish Government, 2012). The job title question had 173 respondents. One person did not provide this data. The majority of respondents were classroom teachers (n=98), then principal teachers (n=31), head teachers (n=29) and depute head teachers (n=10). The five others described

themselves as chartered or support for learning teachers. A higher percentage of head teachers (17 percent compared to the 8 percent in Scotland overall), and principal teachers (18.1 percent compared to 7 percent in Scotland overall) responded to the questionnaire, meaning that un-promoted teachers may be underrepresented in the results (56.1 percent compared to 79 percent in Scotland overall).

Table 4 Overview of Survey Respondents

Scales	N	Mean	SD	Range	Minimum	Maximum
Age	169	44.80	11.33	42	22	64
Role Tenure	170	10.87	9.33	38	0	38
					N	**Percent**
Gender						
	Male				15	8.6%
	Female				158	90.8%
	Not Answered				1	.6%
Role Type						
	Head Teacher				29	16.7%
	Depute Head Teacher				10	5.7%
	Principal Teacher				31	17.8%
	Teacher				98	56.3%
	Other				5	2.9%
	Not Answered				1	.6%
Working Pattern						
	Full Time				149	85.6%
	Part Time				18	10.3%
	Other				5	2.9%
	Not Answered				2	1.1%

Full time respondents numbered 149 with 18 who work part time. The five others described working more than 2.5 days or combining a mixture of working patterns. This question was not completed by two people. Respondents who worked full time

numbered 85.6 percent, compared to 10.3 percent part time. This compares to 85 percent who are full time and 15 percent who are part time in Scotland overall (Scottish Government, 2012). The Scottish Government figures do not specify figures for alternative working patterns. The mean age was 44.80 years old, ranging from a minimum of 22 years to a maximum of 64 years. Five respondents did not complete this information. The age range was slightly higher than the mean for Scottish primary teachers which is 41 (Scottish Government, 2012). The mean time in role was 10.87 years, with the minimum being 0 years and the maximum being 38. Four respondents did not provide this information. There is no comparable data in the Scottish Government summary statistics.

4.5.4 Overview of Survey Measures

The survey used an analytic design (Oppenheim, 2001) which included a combination of pre-established scales and scales which had been developed using a combination of theory and findings from the interviews. The wellbeing scales were pre-established and included measures of affect, life satisfaction and meaning in life. The need satisfaction scales were developed using the needs which were identified from the literature and the interviews. The following sections outline each measure and explain the development of the need satisfaction scales.

4.5.5 Measures of Wellbeing

The purpose of this study is to consider how need satisfaction is associated with wellbeing and wellbeing is defined as having three dimensions: emotions, life satisfaction and meaning in life. As a result, three scales were identified to be included in the questionnaire. The Life Satisfaction Scale (Diener et al., 1985) is a common measure of life satisfaction and was included to measure this dimension. Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi and Biswas-Diener (2010) Scale of Positive and Negative Emotions (SPANE) was selected to measure affect and Steger et al's (2006) Meaning in Life questionnaire was chosen to measure self-assessed meaning. Additional wellbeing questions from the Office of National Statistics (ONS, 2012a; ONS, 2012b; ONS, 2011) were also included in the questionnaire which provided additional measures of wellbeing. The demographic information identified as being important was age, job role, length of time in role and working

pattern. It is argued that each of these criteria may have an effect on wellbeing (e.g. Pereira and Coelho, 2013; Van den Broek et al., 2010; Kunzman et al., 2000).

There are methodological challenges with measuring subjective wellbeing. For example, an overall assessment can be influenced by making social comparisons with others or with previous experiences, or can depend on the mood the person is in or the information that comes to mind when they conduct the wellbeing assessment (Schwarz and Strack, 2003). It is possible that the measurements may reflect the context in which the person completed the scales, rather than being an overall assessment of their life. However, there is also support for indicating that wellbeing measures have a moderate level of stability over time (Krueger and Schkade, 2008), suggesting that they are not affected by context and are useful measures to use. The meaning in life scale has similar levels of stability over time (one year) to the satisfaction with life scale (Steger and Kashdan, 2006).

Scale of Positive and Negative Experience (SPANE)
Diener et al (2010a) have recently devised a scale to measure positive and negative feelings and this was used to measure affect. They argue that a mixture of general (e.g. 'positive') and specific emotions (e.g. joyful) allow respondents to generally assess how they feel (without this being determined by the questionnaire options) and to then capture the specific levels of arousal (e.g. joy, happy, contented), again without listing every possible emotion that a person might be feeling. The scale consists of 6 positive and 6 negative feelings which are rated on a 5 point scale from 'very rarely' to 'very often or always'. The Scale for Positive and Negative Emotions (SPANE) (Diener et al., 2010) asks respondents to rate six negative and six positive words from 1 (Very rarely or never) to 5 (very often or always) on a 5-point Likert-type scale. The positive scores and negative scores are summed separately to provide a total for each and then the negative score is subtracted from the positive score to provide an overall measure of affect balance. Examples of the words used in the SPANE are 'positive', 'happy', 'negative' and 'sad'.

The scale has been tested in the USA and in Singapore on university students (Diener et al., 2010) and in Portugal on full time employees and undergraduates (Silva and

Caetano, 2013). While there is no reason to believe that the scale will not be applicable to Scottish participants, it has not yet been tested on a UK population.

The Scale for Positive and Negative Emotions (Diener et al., 2010) was used as an alternative to the commonly used PANAS questionnaire (Watson et al., 1988). This was done for two reasons. Firstly Diener et al (2010) argue that the PANAS questionnaire either measures extreme emotions or aspects which are not emotional. The purpose of the questionnaire was not to measure extreme emotions, but to consider the types of emotions that people might experience in everyday situations. The SPANE was also shorter and given the number of questionnaire items which were required to be included, it was felt that participants would be more likely to complete this. Diener et al (2010) also argue that emotions can have different levels of intensity and that the PANAS scale only focuses on high levels. Frequency of emotions is also seen as being different from intensity (Schimmack and Diener, 1997).

Satisfaction with Life Questionnaire (SLQ)

The Satisfaction with Life Questionnaire was developed by Diener, Emmons, Larsen and Griffin (1985) to measure global life satisfaction, which is one of the two common dimensions of subjective wellbeing (Diener and Diener, 2009). The Life Satisfaction scale (Diener et al., 1985) consists of five items on a seven-point Likert-type scale, with anchors of 1=strongly disagree to 7=strongly agree. The scores are summed to provide an overall life satisfaction score. An example of the questions used in the life satisfaction scale is 'In most ways my life is close to my ideal.' A score of 21 and above is considered to indicate satisfaction (Pavot and Diener, 1993), with a maximum score of 30. Scores below 9 indicate extreme dissatisfaction. These scores can change, depending on life conditions (Pavot and Diener, 1993). Numerous studies have been conducted using subjective wellbeing (Diener et al., 2003) and have been used on populations in Scotland (e.g. Sani, Elena, Scrignaro, McCollum, 2010) and the UK in general (Shevlin, Brunsden and Miles, 1998).

Life satisfaction measurements can be problematic in that they can be influenced by mood and can fluctuate over time, for example, if circumstances have changed for the worse, with on-going high levels of pain or where a job has been lost (Kahneman

and Krueger, 2006; Pavot and Diener, 1993). However, the scale also correlates strongly to more stable measures such as extraversion, neuroticism (inversely) and self-esteem (Pavot and Diener, 2009). This questionnaire is also useful because it assesses the whole of a person's life, rather than looking at specific domains (Pavot and Diener, 1993).

Meaning in Life Questionnaire (MLQ)

The Meaning in Life Questionnaire (Steger, Frazier, Oishi and Kaler, 2006) was used to measure the meaning that individuals experience. It draws on logotheraputic definitions of meaning in life which suggest that meaning in life is what a person considers it to be (Steger et al., 2006). The Meaning in Life Questionnaire (Steger et al., 2006) uses a 7-point Likert-type scale to measure 10 statements about meaning in life, with anchors of 1= absolutely untrue ranging to 7= absolutely true. A presence score represents the existence of meaning in a person's life and is generated by summing items 1, 4, 5, 6 and 9-reverse coded and a search score (how much a person is attempting to increase meaning) is made up of the sum of items 2,3,7,8 and 10. An overall score cannot be calculated for this scale. An example of the items used in the Meaning in Life Questionnaire is 'My life has a clear sense of purpose' (presence of meaning) and 'I am looking for something that makes my life feel meaningful' (search for meaning).

This scale has been tested on undergraduate students (Steger et al., 2006; Steger, Kashdan and Oishi, 2008a; Steger, Kashdan, Sullivan and Lorentz, 2008b) and correlates to the Satisfaction with Life Scale (Diener et al., 1985) and the Long-term Affect Scale (Diener et al., 1995) among others. It was also assessed against Schwartz's values (Schwartz and Bilsky, 1987; Schwartz, 2011), suggesting that there may be an association to needs. It shows a lower correlation with other measures of wellbeing, suggesting that it is measuring a separate but related construct (Steger et al., 2006).

No assumptions are made as to how meaning in life might be defined by a person, meaning that the choices of needs are not pre-determined. Meaning in life is associated with both life satisfaction and cognitive style (Steger, Kashdan, Sullivan and Lorentz, 2008b), but does not measure similar variables as with other meaning in

life scales such as the Purpose in Life test (Yalom, 1980). Steger at al. (2006) demonstrate that one may have high presence scores but also high search for meaning scores and argue that this is due to people who have meaning in life constantly searching for more. Therefore, search for meaning scores are not necessarily associated with need satisfaction specifically.

National Wellbeing Survey Questions

Wellbeing questions were introduced into the Office for National Statistics Surveys in April 2011 (ONS, 2011) and were chosen as a result of a national debate held in the UK which asked people for their considerations of what matters to wellbeing (Beaumont, 2011). The national wellbeing questions (ONS, 2012a; ONS, 2012b; ONS, 2011) consist of four questions rated on an 11-point Likert-type scale, with anchors of 0 = not at all and 10 = completely. The scores are not summed by the ONS and represent different dimensions of wellbeing. An example of the ONS wellbeing questions is 'Overall, how satisfied are you with your life nowadays?' Asking these questions provided additional measures of wellbeing.

4.5.6 Development of Need Satisfaction Measures

The interview findings correspond to the needs identified in the literature and also suggest two additional needs (achievement and developing others). Using the needs which had been identified from the literature and the interviews, a definition of each need was developed. The needs were then developed into a set of statements for work and life, based on examples from the interview findings. The purpose of these statements was to test whether they reflected the respondent's current levels of need satisfaction.

In order to determine the needs which may be associated with wellbeing, a set of possible choices required to be proposed. As was shown in Chapter 2, Finnis and colleagues (Grisez et al., 1987) outline a philosophical theory which suggests a set of basic human needs. Finnis, (2011; 1994) lists the basic goods as knowledge of reality; skilled performance; health, vigour and safety; friendship with others; marriage (including having and raising children); practical reasonableness (alignment between feelings, judgement and behaviours); harmony with source of reality (including meaning and value). Maslow's (1968/1999) needs (physiological, safety,

love, status and self-actualisation) correspond to Finnis's, with the exception of status, which was therefore added to the list. Self-Determination Theory includes a need for autonomy (Deci and Ryan, 2000), and this need was also included. Each of these needs have also been considered in relation to the teaching literature to indicate their importance to the role of a teacher.

The 10 needs which were identified in the literature could also be identified in the accounts of the teachers and the stakeholders. These are knowledge of reality, excellence and mastery, health and vigour, excitement and security, harmonious relations, family relations, inner peace, belief system, attaining status and autonomy. Two additional needs were identified. These were achievement and developing others. The literature suggests that achievement is part of the status need (Maslow, 1954/1987) and developing others may be part of the relationship need (Finnis, 2011). However, the teaching literature indicates that both achievement and developing others is important to teachers. Both these aspects emerged as being important in the accounts of the teachers and stakeholders and were included as separate needs in the survey to ensure that the list was as comprehensive as possible.

Need statements were developed using the themes from the interviews as the basis. Where either a work or life need statement was developed, a corresponding statement was included for the other domain. This was to consider whether the same needs were important in work and life. For each of the 10 needs originally identified, each statement was then assessed in relation to the relevant need theory to ensure consistency with extant literature. Given that two additional needs (achievement and developing others) emerged from interviews with teachers, it was possible that these may be specific to a teaching role only. The following section outlines the needs which have been incorporated into the survey and explains how they have been modified to suit the population being studied.

The health and vigour statements capture subjective evaluations of health and energy levels. Excitement is considered to be the opposite of safety and was chosen due to it being a more explicit term (for example, safety could mean a non-hazardous workplace, rather than a wider need for security). However the statements directly measure safety as it was felt that they were specific enough to measure the aspects of

safety which are included in this need. Knowledge is about knowledge of the profession and the wider world. The reference to beauty was excluded from knowledge as it did not appear in the exploratory interviews which were conducted. Excellence and mastery considers the ability to access learning and skill development and to be able to implement this learning. Harmonious relations considers collegiate and personal friendships and interactions with the wider school or life community.

Family focuses on intimate personal relationships and having and raising children. For work needs, its focus is the effects of work on family life. Inner peace captures the idea of a person's actions and choices being true to his or her own inner beliefs and values. Belief system considers beliefs in a social, philosophical or higher power, and in relation to work this need considers the extent to which an individual's role is a calling. Attaining status is the need to be appreciated and respected by others. Freedom is the need for autonomy, or the ability to choose one's own actions rather than doing what others expect. Developing others is an aspect which is reported by the interview participants. It is the need to maximise pupils' and others' potential. Achievement is the need to demonstrate superior ability in relation to others.

In summary, a set of needs was identified from the need literature (Finnis, 2011; 1994; Ryan and Deci, 2000; Maslow, 1954/1989). The exploratory interviews confirmed that these needs could be seen in the activities of the individuals who were interviewed. The interview findings suggested that esteem should be split into two separate needs (status and achievement) and that developing others was a need which may also be important. Need statements were developed using examples from the interviews, with corresponding statements developed for both domains of work and life.

4.5.7 Overview of Need Satisfaction Scales

Importance of Needs

A total of 12 needs were devised using a combination of theory and the interview data conducted with teachers, retired teachers and teaching stakeholders. A scale was devised which asked the survey respondents to rate the importance of each need. The words and statements were rated on a five-point Likert scale, with anchors of 1 = very unimportant to 5 = very important. The 12 items are: 1) knowledge, 2)

excellence and mastery, 3) health and vigour, 4) Excitement, 5) Harmonious relationships, 6) family, 7) Inner peace, 8) Belief system, 9) Developing others, 10) Attaining status, 11) Achievement, 12) Freedom.

Work-Life Need Satisfaction Instrument
A Work-Life Need Satisfaction Instrument was then devised to consider the extent to which each need was satisfied. Four statements were developed for each need, two which represent actions or behaviours from the work domain and two from the life domain. The survey considered the importance of each need and then the extent to which it is satisfied. Principal component analysis was used to refine the scales.

Satisfaction of Needs in Work
A total of 24 items were developed to articulate the 12 basic needs for the workplace. For each item, the survey respondent was asked to consider the extent to which the statement was like him or her. The items consist of 24 items on a 5-point Likert-type scale, with anchors of 1 = strongly disagree and 5=strongly agree. The 24 items are given in Table 5.

Satisfaction of Needs in Life
A total of 24 items were developed to articulate the 12 basic needs in life. For each item, the survey respondent was asked to consider the extent to which the statement was like him or her. The items consist of 24 items on a 5-point Likert-type scale, with anchors of 1 = strongly disagree and 5=strongly agree. The 24 items are given in Table 6.

Exploratory Principal Component Analysis
The survey items were developed from the needs that emerged from the literature and interview findings. The interview data indicated evidence for the ten needs which could be identified in the literature and suggested another two which were also important to individuals. These needs were then used to develop a set of 48 statements, 24 statements about needs in life and 24 statements about needs in work.

Between three and five variables should be included for each factor (Fabrigar, Wegener, MacCallum and Strahan, 1999). Four statements were devised for each identified need, with two statements relating to work (see Table 5, Chapter 4) and two to life (see Table 6, Chapter 4). Variables WQ5 (My job adversely affects my

Table 5 Items from the Satisfaction of Needs in Work scale

Need	Item
Knowledge	1. I receive feedback from others which helps me to understand the needs of my job.
	2. I know about the wider standards of my profession.
Excellence and Mastery	3. My job allows me to develop my skills.
	4. I am able to make improvements in my workplace.
Health and Vigour	5. My job adversely affects my health (physical or mental). (r)
	6. My job gives me energy.
Excitement (r)	7. My workplace is a safe place.
	8. I am in secure employment.
Harmonious Relationships	9. I have good relationships with others at my work.
	10. I am active in my school community.
Family	11. I balance the needs of my family with the needs of my job.
	12. I switch off from my job in my life outside my work.
Inner peace	13. My decisions at work are true to my feelings.
	14. My values fit with the values of my workplace.
Belief system	15. My job gives me a sense of meaning.
	16. I consider my job to be a vocation.
Developing others	17. I develop others in my workplace.
	18. I meet the needs of the children in my school.
Attaining status	19. I am appreciated by others in my workplace.
	20. I work in a profession which is respected by others.
Achievement	21. I am good at what I do in comparison to others.
	22. I achieve the work goals I set for myself.
Freedom	23. My behaviours at work reflect my own views and opinions.
	24. I care about what other people in my workplace think about me. (r)

Table 6 Items from the Satisfaction of Needs in Life scale

Need	Item
Knowledge	1. I build my knowledge about the world around me.
	2. I understand the needs of others in my community.
Excellence and Mastery	3. The recreational activities which I pursue allow me to develop my skills.
	4. I am able to make improvements in my life.
Health and Vigour	5. My life outside my work adversely affects my health (physical or mental). (r)
	6. My life outside my work gives my energy.
Excitement (r)	7. I live in a safe community.
	8. I am financially secure.
Harmonious Relationships	9. I have good relationships with others in my personal life.
	10. I am active in my community.
Family	11. I have good relationships with my family.
	12. I am in a committed relationship.
Inner peace	13. My decisions in my personal life are always true to my feelings.
	14. My values fit with the values of my community.
Belief system	15. I have a strong belief system.
	16. I express and live my values.
Developing others	17. I help others in my personal life to learn and improve.
	18. I meet the needs of my children (choose strongly disagree if you do not have children).
Attaining status	19. I am appreciated by others in my personal life.
	20. I am respected by others in my personal life.
Achievement	21. I achieve the life goals I set for myself.
	22. I am good at what I do in my personal life in comparison to others.
Freedom	23. My behaviours in my personal life reflect my own views and opinions.
	24. I care about what other people in my personal life think about me. (r)

health) and LQ5 (My life outside my work adversely affects my health) and L22 (I care about what other people in my personal life think of me) and W24 (I care about what other people in my workplace think about me) were reversed as high scores indicated a low satisfaction (rather than high, as in the case of the other questions). In variable L24 (I meet the needs of my children), respondents were asked to answer 'strongly disagree' if they did not have children as there was no 'Not Applicable' option in the design of the question. Thus, this question was deemed to not have been answered in the same way as the others and it was removed from the analysis, although this meant that only three variables were available for the need for family (rather than the preferred four).

Principal component analysis is a means of simplifying a number of variables into groups (Tabachnick and Fidell, 2013; Kline, 2000, 1993). It allows for conceptually related variables to be grouped together into a single component (factor), with one or more components emerging from a large initial group of items (Oppenheim, 2001) and was considered an appropriate method to highlight the important groupings of need satisfaction variables. This statistical approach reveals underlying associations which may not be apparent without subjecting the variables to this test (Tabachnick and Fidell, 2013). Principal component analysis is often used interchangeably with factor analysis (Kline, 2000), but Pallant (2010) recommends using principal component analysis.

Principal component analysis is appropriate to this study as a method of reducing the variables to a smaller number of items (Tabachnick and Fidell, 2013), and this is useful given the relatively large number of needs and variables which were included in the survey. While factor analysis is more likely to provide a theoretical solution (Tabachnick and Fidell, 2013), principal component analysis provides an empirical overview of dimensions through data reduction and is more useful as an exploratory tool (Velicer and Jackson, 1990). In short, principal component analysis indicates groups of variables which are useful to consider together. Kline (2000) indicates that principal component analysis and factor analysis are unlikely to give different outcomes anyway, and as a result, principal component analysis was selected as the

most suitable statistic to use. An exploratory form of principal component analysis was selected given the nature of the research (Pallant, 2010). It was unclear whether the range of needs was appropriate and an exploratory method allowed an assessment of the needs which might emerge as being important.

The second choice regarding statistical usage then involved the choice between using a varimax (orthogonal) solution (the components are uncorrelated with each other) or running an additional forced oblimin (oblique) rotation (the components are correlated) and taking the groupings from that approach. Both Pallant (2010) and Kline (2000) indicate that often both varimax and oblimin approaches are used and compared to choose the method that best explains the model. Therefore, both approaches were run, with a decision taken to use an orthogonal approach as this was considered to give the most useful understanding of the data. Bakker and Bal (2010) and González-Romá, Schaufeli, Bakker and Lloret (2006) both use a similar approach (Principal Component Analysis with varimax rotation) to conduct a similar analysis on teachers' job resources and measures of wellbeing, respectively, indicating that this is an accepted method for this kind of study.

Variables are assigned to groups on the basis of their factorial loadings. Kline (2000) argues that a factor loading greater than 0.3 is acceptable. However, as the number of subjects is less than 300, loadings of 0.6 and above (this is high, according to Kline, 1993) will be used in this study. This is lower than the suggestion made by Tabachnick and Fidell (2007) who suggest 0.8 and Fabrigar et al (1999) who suggest 0.7. However, de Winter, Dodou and Wieringa (2009) demonstrate that factor analysis can be accurate with sample sizes as low as 10 where the number of factors is low and the number of variables is high. Their table of sample sizes indicates that with 8 factors, where the loadings are greater than 0.6 and the number of variables are 48, only 156 respondents are needed. Kline (2000) advises a minimum of 100 respondents and indicates that a ratio of two subjects to each variable is sufficient.

Further testing may be required to ensure replication, but it is argued that n = 168 (the usable number of cases for principal component analysis in this study) in relation to 47 variables (the total number of need statements in the survey) is a reasonable response rate to be able to suggest the variables which may load to the

factors. A figure of 0.6 was therefore taken as the minimum acceptable loading. However, the content of the factors was also visually inspected to consider any variables which had smaller loadings but which were conceptually similar to variables which loaded at 0.6 or above within that factor.

Prior to analysis, the data was considered for suitability for principal component analysis. Some variables were skewed or had kurtosis either positively or negatively. However, given that the extent to which they deviated from normality was not extreme, it was still useful to conduct the analysis (Tabachnick and Fidell, 2013). A selection of scatterplots was run using the variables with the strongest skewness (Tabachnick and Fidell, 2013) with no evidence of curvilinearity found. Outliers were retained, despite the risk of this affecting the solution (Tabachnick and Fidell, 2013), to include as many responses as possible.

4.5.8 Self-Assessed Work-Life Orientation Scale
Self-assessed work-life orientation was measured by asking respondents to indicate their orientation to work or life. The five options given to the question ranged from 1) very weighted towards work, 2) weighted towards work, 3) balanced between work and life, 4) weighted towards life, and 5) very weighted towards life.

4.5.9 Demographic Data
Participant data was collected at the beginning of the survey. Table 7 outlines the data which was requested from respondents.

Table 7 Demographic questions

Demographic Questions	
Job Title	Five options provided (Head teacher, Depute Head teacher, Principal teacher, Teacher, Other)
Years at current level	Respondent enters number of years
Working Pattern	Three options provided (Full time, Part time, Other)
Age	Respondent enters age
Gender	Two options provided (Male, Female)

4.5.10 Analytical Strategy

A range of statistical methods was chosen to analyse the survey data. Descriptive statistics were selected to conduct an initial analysis of the data. All data was checked for errors and for normality, linearity and homoscedasticity (Tabachnick and Fidell, 2013) and demographic data, means, standard deviations and distributions for each of the wellbeing scales were calculated. Pearson correlation coefficients were examined to check that the wellbeing scales did not correlate highly against each other. The distribution of work-life orientation (whether energy is directed at the work or life domain or both) scores was also calculated. Chi squared calculations were performed to consider whether age, tenure, working pattern or gender had an effect on work-life orientation and t-tests were performed to check any group differences for wellbeing and satisfaction of work and life needs.

Descriptive statistics were conducted to assess whether there was a relationship between work-life orientation, and the satisfaction with need satisfaction and wellbeing scores. The wellbeing trends were statistically analysed using Kruskal-Wallis tests. This test was selected due to small uneven sample sizes in the orientation to work and life distributions: MANOVAs cannot be run because there are only two cases in the high orientation to life cell (Pallant, 2010). A principal component analysis (see section 4.5.7) was then conducted to gain an understanding

of the important need groupings and the test decisions are explained in more detail in the following section. Finally, standard multiple regressions were run to consider whether these needs were associated with wellbeing. This technique allows the effects of multiple independent variables on a single dependent variable to be tested (Tabachnick and Fidell, 2013) to consider which have the greatest effect.

4.5.11 Limitations of the Survey Method

There are arguments that psychometric questionnaires risk generating reductive outcomes (Ackroyd, 2009). However, statistical analysis is useful in initial explorations of causality (Manicas and Secord, 1983), and therefore survey approaches can be used to inform future research to understand the causal explanations which underlie the descriptive findings. The survey approach will not show causality in the way that an experiment might, but it does provide indications. It is possible that people with pre-existing high levels of wellbeing are better able to mobilise their resources (Fredrickson, 1998; 2001) to satisfy their needs. However, other studies indicate that need satisfaction will lead to wellbeing (Bakker et al., 2007). The use of a survey is therefore considered to be an appropriate choice and is seen as a necessary pre-requisite to developing an understanding of the associations between the satisfaction of needs in work and life and wellbeing.

Response bias may occur in the survey method (Hays, 2000), resulting in participants anticipating the answers that the researcher is looking for and completing the survey accordingly. Concurrent validity may also be an issue, whereby social desirability or other reasons could cause respondents to not answer truthfully (Oppenheim, 2001). Even where the participants answer honestly, the wording of the question, in relation to expecting a yes or no answer can also affect the results as people may be more likely to answer yes to questions (Hays, 2000). The ordering of the questions themselves can also trigger different responses (Hays, 2000; Schwarz and Strack, 1991) by influencing the mind-set of the respondent. For example, Schwarz and Strack (1991) indicate that asking questions about marriage before or after measures of wellbeing will dramatically influence the correlations. As a result, the questionnaire was ordered so that the wellbeing questions were asked as soon into the survey as possible, with the measures of need satisfaction being asked afterwards.

This may have resulted in more conservative correlations, but this was deemed preferable to over-inflating the associations.

Finally, personality is not measured in the survey and could be a mediating factor (DeNeve and Cooper, 1998). For example, Diener and Ryan (2011) suggest that temperament will make people happy. This could mean that respondents who are naturally high in happiness may score highly on the wellbeing measures, despite not having an optimum balance of needs. However, the impact of personality is likely to be low (DeVeve and Cooper, 1998), which suggests that controlling for personality may not have a large effect on the findings. Studies on need fulfilment and personality have shown that needs will have an effect on wellbeing, beyond the effects caused by personality (Romero, Gomez-Fraguela and Villar, 2011). Given that the purpose of positive psychology is to increase wellbeing as much as possible (Seligman and Csikszentmihalyi, 2000), it is argued that an understanding of how need satisfaction may be associated with wellbeing will benefit individuals regardless of their personality. Measuring need satisfaction will offer suggestions for practical solutions which individuals can choose to implement (Deci and Ryan, 2011). This indicates the merit in ascertaining that there are links between the needs which are satisfied by work and life and wellbeing and, as a result, this study opted to investigate this relationship rather than consider the effects of personality.

Furthermore, this study did not use any non-self-assessed measures of wellbeing or need satisfaction. Using self-assessed methods to assess need satisfaction may not necessarily indicate a fulfilled person. However, Kashdan et al (2008) indicate that, despite the criticisms of self-assessed methods, the internal states of individuals are important to consider. It is argued that individuals are best placed to determine whether their needs are satisfied and whether they have wellbeing. There are means of objectively measuring wellbeing (Kashdan et al., 2008) and it may be possible to classify emotions in relation to neurobiological responses (Phillips, Drevets, Rauch and Lane, 2003). Life satisfaction could also be assessed in relation to objective measures, such as whether one is married (Phillips, 2006; Helliwell and Putnam, 2004) or income or education (Cummins, 2000). However, objective and subjective

wellbeing measures will not necessarily correspond (Cummins, 2000). This means that objective measures cannot be relied on to provide accurate pictures of wellbeing.

4.5.12 Pilot Study

A pilot study was conducted to establish that the survey asked clear and useful questions and to test the software. The survey questionnaire was initially provided to two retired teachers. They were asked to complete a paper version and provide feedback on completing the survey. One respondent indicated that the question asking about the number of hours she worked made her angry which she then felt influenced the rest of her responses. As a result this question was removed. The other questions were deemed to be clear and understandable. A comment was also made that if a teacher did not have any children, it was not possible to answer one of the life need questions on developing others.

A pilot study was then conducted in April 2012 on seven female primary teachers to test the survey and the online software. The pilot allowed an initial idea of the responses and a consideration of whether the existing wellbeing scales were appropriate to use. Some of the questions were adjusted as a result of the responses which were received.

Orientation to work and life was initially measured as a scale ranging from 0 (work) to 100 (life). Participants' responses ranged from 50 to 76 (a greater orientation to life). The high orientation towards life that participants reported suggested that they may be misinterpreting the format of the question. The question was therefore changed to the following:

Where is your work/life balance currently?

- o Very weighted towards work

- o Somewhat weighted towards work

- o Balanced between work and life

- o Somewhat weighted towards life

- o Very weighted towards life

The following changes were made to the survey.

1. Changed direction of scales so that the survey software calculated them correctly.

2. Added in part time or full time working option as a possible explanation for orientation to life.

3. Adjusted statements about children in the life need section to ensure that respondents without children could complete this section.

4. Added in a statement on developing others in personal life as this had been unintentionally omitted from the pilot.

5. Made the work-life orientation question clearer to ensure understanding.

4.6 Chapter Summary

This chapter provides an overview of the research philosophy and two-phase, mixed methods design. It outlines a rationale for the modified life history-type interview method which was used to identify need satisfaction in the lives and work of teachers and the enablers and challenges which prevented or supported need satisfaction. In addition stakeholder interviews were conducted to provide an additional perspective on need satisfaction, along with the challenges and enablers. The purpose of these interviews was to provide exploratory data which was used to develop a survey. The survey method has also been outlined, along with the sampling strategy, the analytical strategy which was used and some of the limitations of using a survey. The purpose of the survey was to confirm the needs which are important as well as to assess the associations between satisfying work and life needs and wellbeing. The scales which were used in the survey were presented and the development of the need satisfaction scale was explained. The data from the survey sample and the pilot study were both outlined.

The next chapter presents the findings from the interview data and principal component analysis. It outlines and discusses the findings from the interviews which supported the framework of needs identified from the literature. These findings were used to develop the survey items in the work and life need satisfaction scales.

Chapter 5 also provides the findings from the principal component analysis which further refined this set of needs to seven key groups of needs. A discussion which justifies these groups of needs as being important to teachers in work and life is conducted.

Chapter 5
Findings: Basic Needs in Work and Life

5.1 Introduction

The previous chapter outlined the methods for addressing how needs should be satisfied across work and life to optimise wellbeing. It argued that an interview approach was the appropriate method to consider the proposed need framework and that a survey should then be used to further test that these needs are important. Both teachers (working and retired) and stakeholders were interviewed in order to establish both the individual perspectives of teachers as well as a wider view of the profession. Chapters 5 to 7 present the findings for this study and each chapter sets out the findings related to the particular research questions or hypotheses being considered.

This chapter presents the interview and survey data which informs Research Question 1 (RQ1): What basic needs must be satisfied in both work and life domains for wellbeing?) and tests Hypothesis 1a (which of the following needs will influence wellbeing: 1) knowledge, 2) harmonious relationships, 3) excellence and mastery, 4) health and vigour, 5) safety, 6) family, 7) inner peace, 8) belief system, 9) status, 10) autonomy). The findings firstly discuss the interviews with working and retired teachers and teaching stakeholders which were used to investigate these needs in a teaching context, then the accounts of the teachers and stakeholders are compared. The interview findings consider each need in turn and include two additional needs which emerged from the interview analysis. A summary of the interview findings and a brief discussion of their implications is provided. Secondly, further findings are presented resulting from an investigation into these 12 needs using a survey. The importance of each need is considered, followed by a principal component analysis of the survey data which indicates that there were seven dimensions.

5.2 Interview Findings: Considering the Important Needs in Work and Life

This section presents the findings from the teacher and retired teacher and stakeholder interviews. The purpose of these interviews was to test Research Question 1 (What basic needs must be satisfied in both work and life domains for wellbeing?). Interviews were conducted with 12 working and retired teachers and head teachers, and 11 stakeholders. Separate thematic analyses of comments were conducted for teachers and for stakeholders but as the same themes emerged for both groups, the findings are presented jointly by theme. Each theme is concluded by highlighting any differences between the teacher, retired teacher and stakeholder accounts.

Knowledge

Knowledge is about knowing things for their own sake (Finnis, 2011). The need for knowledge was mentioned by 14 out of 23 participants. One teacher and two retired teachers talked about the importance of having worked outwith the teaching profession. They felt this gave them an understanding of how the profession compares with other jobs.

> I actually worked in [names workplace], and during my holidays and all that kind of thing. So I think I had a feel for what was around in business apart from schools. Maybe not as much as other people. But there were some people who didn't have, just thought it was special. Teachers should be different and treated differently and schools were a different kind of place to be. And I found that quite, what's so special about you, you know? (Retired Teacher 6)

Two teachers and one retired teacher also discussed receiving feedback about what was required to do their job. This feedback was informal and came from interacting with colleagues or other schools, but it expanded their knowledge of the job as a result.

Knowledge of reality was also a need for retired participants, with three retired teachers talking about gaining knowledge about other parts of the world when on holiday. Experiencing different places and cultures appeared to be a key reason for

travelling. One teacher also talked about not having travelled more while she was younger: "But it's the one thing I would like to have done a wee bit more of is travelling when I was younger and maybe seeing a wee bit more of life."

In comparison, five stakeholders focused on the importance of knowledge of the profession. For head teachers, it was important to understand the needs of the different groups that they dealt with, from the local authority, to parents, to their staff, to the children in their schools. For example, one stakeholder indicated that the move from being a classroom teacher to a promoted post was daunting because of the wide knowledge of all aspects of teaching which promoted teachers are required to know. Classroom teachers require an understanding of the expectations of the curriculum and share information in order to give their pupils continuity as they move through the school. For example, one respondent indicated:

> A successful teacher can see the big picture in terms of where she fits, he or she fits in, to the classroom, the children's demands, the classroom demands, the needs of the whole class, individual needs, the needs of the school and then where that fits in to local authorities. So they've got that look right across from what's happening in the classroom to actually the needs of the local authority, and actually the needs of society. (Stakeholder 10)

Differences could be seen in the accounts of this need, whereby, the teachers and retired teachers focused on knowledge outside of their profession. In comparison, the stakeholders discussed the need to gain knowledge of the profession and the sharing of professional knowledge.

Excellence and Mastery
Excellence and mastery is the need to develop skill for its own sake (Finnis, 1994). The need for excellence and mastery was mentioned by 18 out of 23 respondents. This need was discussed by four teachers and three retired teachers. There were two main ways that the teachers and retired teachers described building mastery. One was in terms of the learning that the job brings. This was indicated by three teachers and three retired teachers. On-the-job learning, included being able to learn from others

and ranged from learning from managers, to colleagues, to probationers. Teachers learned their skills from watching others:

> You had to kind of you know notice how other people worked, how other people taught. And that's how you picked up kind of things, you know. I would say in my career I've learned most things from other people who were in the class as well. (Retired Teacher 2)

The second was in relation to formal learning, such as the Chartered Teaching qualification and Standard for Headship qualification (SQH). For example, one teacher indicated that she completed qualifications because she enjoyed learning, in addition to the benefits it brought to her teaching practice.

However, there were also respondents who did not indicate mastery as a need. Four retired teachers suggested that development was not fulfilling a need for them, citing reasons including struggling to develop when dealing with new technology and taking part in development but not having any particular desire for having done so, (even where learning was gained). One retired teacher did not mention development at all in her interview. In addition, one teacher enjoyed the achievement that gaining qualifications can bring, rather than completing them for the learning.

Seven stakeholders also talked about the need to be able to develop on the job, with much of this development coming from the changes to the curriculum. They also gave examples of how development comes from teachers being able to use what they have learned from CPD and other qualifications in a practical way when in the job. Challenges which stretch teachers can be used to develop them.

> I think the biggest thing is feeling that they are doing a good job, they're doing it well, that they are working, stretching themselves but within their comfort zone. (Stakeholder 9)

Leadership is a skill which is highlighted for both teachers and head teachers by four stakeholders. One stakeholder discussed the importance of being able to take time to develop on the job before moving into a leadership position so that the promoted

member of staff has a grounding in the job of being a teacher. Three respondents indicated the wide range of leadership skills required, for example:

> Now a successful teacher would also need to have leadership skills in terms of leading youngsters and leading in the classroom and playing that leadership role but when you become a head teacher you need to have all the leadership and management skills to be successful. (Stakeholder 1)

Four respondents described the concept of mastery to be closer to Ryff's (1989) concept of environmental mastery whereby individuals exert control over their environment. Part of this can be seen in the importance placed on organisational skills which is considered important in order to be a good teacher. One respondent discussed the need to have control over the working environment and went on to explain that those who are unable to plan effectively feel stressed about it:

> I think a very good teacher is in control of their environment. A very good head teacher can control the environment that they're in all of the time. And people who are, who are the more at ease, someone if in the job that they do, the more control they can exercise over what they do. (Stakeholder 2)

For the need for excellence and mastery, both groups of interviewees focused on learning on the job, although the focus differed in relation to learning from others and experience in different teaching roles (teacher and retired teacher respondents) and individual learning which resulted from changes to the curriculum (stakeholders). The teachers and retired teachers focused on formal qualifications which included both technical and leadership development, whereas the stakeholders placed particular emphasis on the importance of leadership training. Stakeholders also considered mastery over the environment as being of importance.

Health and Vigour
Health and vigour is the need to have health and energy to live life. Health and vigour was talked about by 15 out of 23 respondents. Three retired participants talked about how the job became more exhausting as they got older with two of these participants indicating that they sought retirement in order to redress the energy that

their job required. The third reported that she was ready to retire, stating that 'enough was enough'. Their reasons for retirement indicated the lack of energy that accompanied the latter stages of their career, despite having vigour in earlier stages of their career. The need to address this lack of vigour by retiring suggests a need to restore their low energy levels.

> Too hard. Too physically hard. Physically hard. No. I was ready to retire.
> (Retired Teacher 3)

Experiencing a lack of vigour was not constrained to retired teachers, with one of the working teachers indicating that she experienced a lack of energy due to workload. Behaviour, increased paperwork and planning and the impending changes to the curriculum were reasons that all four participants gave for finding the job tiring.

However, the participants also talked about the sense of vigour they got from working. Three teachers and one retired teacher talked about the energy they got from taking on a promoted position or from doing a secondment and indicated that this increased their motivation when returning back to the classroom. They did not suggest that this was the reason for taking on the secondment or promotion, but stated that they did gain energy from the experience. For example, one teacher talked about her experience in a promoted post that she was very passionate about, in terms of the effort she put into her role, "I was so driven, I can't, you know, when I think back on it I was so driven."

Two retired teachers discussed the need for health. One retired teacher indicated that health was an important value in her life. Another discussed her ill health and the effects of this on her work and indicated that this was a factor in her decision to leave the profession. One teacher mentioned the effects on her health of working in a difficult school. She later left this school but indicated that this was not due to the health impact.

The stakeholders indicated that teachers receive engagement from the job but also run the risk of burnout, particularly in relation to the busiest times of the year, which tend to be driven by external deadlines, such as reporting or improvement planning. Four stakeholders described how conscientious teachers are but indicated that the

demands of the job can have adverse effects on their health and wellbeing, with one stating:

> And they talk about being, you know, on their knees. 'I'm on my knees, you know.' And it's almost like, 'I'm really tired. I'm pushing myself.' (Stakeholder 3)

In comparison, the vigour of teachers was discussed by three respondents in relation to the excitement and enthusiasm they feel for their job. They suggested that teachers are keen to direct their energies into their work and that their enthusiasm will be shared by the children in the school.

> You get that feel. It's the brightness, it's the visual impact on you. It's the welcome you get, but then when you get to meet the teachers, it's the same feel. It's when you go into their class, it's the feel, it's the enthusiasm. But also the enthusiasm of the children that you feel. (Stakeholder 4)

The main difference discussed by the stakeholders was that burnout would be experienced alongside engagement with the job. In comparison, teachers and retired teachers were more likely to discuss burnout happening over time and superseding engagement with work.

Safety
Safety is the need to be protected from external threats (Finnis, 2011; Maslow, 1954/1987). The need for safety was discussed by 15 out of 23 respondents. The financial benefits of the job are important, even where the work was described by respondents as a vocation. While three teachers and one retired teacher could be described as secondary wage earners, their jobs helped to contribute to security in their home lives. However, they also indicated that the extra money was an attraction of the job and that the additional income was beneficial. In addition to this, one teacher and two retired teachers indicated that they returned to teaching after having children because it brought an additional salary into the house. One retired teacher also stated that additional income allowed her to have aspirations in relation to

providing opportunities for her family, stating that "if you've got a bit more money you can have that aspiration more than people who don't have that money."

As well as returning to work for increased financial security, three retired teachers talked about having been financially able to give up work when they wanted to. This allowed them to retire from teaching at a time that worked for them, particularly in relation to decisions to have more choice in what they did with their day or to spend more time with their families.

Financial security was also discussed by three stakeholders. A respondent indicated that this could be a reason for pursuing promotion.

> So I think a lot of people just get into the system and do well and there is a kind of natural progression through. Also, when I was part of the system, it was very much a financial incentive to go up the ladder. (Stakeholder 7)

Courage was also a factor which was mentioned by two stakeholders, acknowledging the challenges which come with a head teacher role. The job is considered to be challenging, working with different individuals and agencies that may have conflicting requirements and expectations. This means that head teachers must be willing to make decisions which may not be supported by everyone and sometimes have to be unpopular in order to meet the needs of their school.

Both teachers and retired teachers and stakeholders discussed the pursuit of financial security. The retired teachers mentioned financial freedom in relation to being able to shift their orientation towards life by taking retirement. The stakeholders mentioned the additional need for courage to be able to deal with the challenges of a head teacher role.

Harmonious relations

Harmonious relations are about the need for relationships with others, including colleagues and the wider community. The need for harmonious relations was discussed by 21 out of 23 respondents, with all teachers and retired teachers mentioning this need. Good relationships with colleagues were considered important in relation to being an essential aspect of the workplace, with participants tending to

describe their relationships with others as positive. This need was indicated by the importance which the respondents placed on the support and good working atmosphere that friendships in the workplace brought. For example, two teachers went as far as to state that they would not be able to continue working in their school if they did not get on with their colleagues. This was in addition to the four retired teachers and two teachers who classed their friendships in school as supportive.

This concept of support can be seen prior to respondents entering teacher training, with one teacher and two retired teachers who talked about consulting with friends before they decided to go to teacher training college and subsequently went to college with people they had been to school with. Three teachers and one retired teacher also talked about enjoying their experience at college in relation to being away from home for the first time and enjoying the social aspects. As one respondent put it, "So we lived in, had a great social life, met lots of really good friends etc., etc." The friendships made in the respondents' teaching careers can be traced through to retirement, where all of the retired teachers who were interviewed mentioned previous colleagues who they are still in touch with. Interestingly, friendships with non-teachers were less likely to be mentioned in detail by the respondents.

The head teachers and retired head teachers were more likely to report challenging relationships, ranging from the difficulty in influencing others during times of change to dealing with other agencies and the local authority. While the classroom teachers and retired teachers occasionally indicated that lack of support from promoted staff could be challenging, they tended not to discuss negative interactions with others.

Community can be considered in relation to harmonious relations and was mentioned by respondents. These comments were more likely to be made by the head teachers and retired head teachers than classroom teachers, suggesting that head teachers have greater interactions with parents and other members of the community in which the schools are based. As one said, 'We are a community. We're a family. And we just keep moving and we're there to support each other.'

Two retired respondents also mentioned contributing to the community through charity work that they do outside of school and one current teacher talked about planning to do charity work when she retired and the sense of wellbeing which she felt would result.

> Once I do retire I will be working, I'll be doing voluntary work…or something like that because that would be, I think that would add a real happy dimension to my life. (Teacher 3)

Relationships with children were highlighted as being important to the teachers by nine of the stakeholders. This is different to the need to develop pupils in that their accounts specifically focused on the ability to connect with their pupils. The respondents talked about building trusting environments and being able to use relationships to build and maintain discipline.

> I think a successful teacher would be somebody who likes children. Somebody who knows how to relate to children, knows how to talk to children, knows, gives children their place, recognises that it's not about the mighty and those without power or authority. (Stakeholder 1)

Relationships with parents were discussed by eight of the stakeholders. They talked about the importance of building relationships with parents and the support that they can offer teachers, but also the challenges that these relationships can cause. The relationship with parents was often described in conjunction with interactions with the community, indicating the central focus of the school.

> And I think when you have the kind of relationships that Primary schools have with parents it kind of lends itself to that community feel, doesn't it? That you feel more of a community when you have that relationship with parents, that the school- They're very much part of the school and the life of the school. (Stakeholder 8)

The collegiate nature of teaching was also important according to five respondents. The stakeholders discussed the use of learning communities where teachers share best practice but also in relation to providing support for each other. Beyond the

sharing of best practice and support, there were few reasons given for having friendships with colleagues but rather an implicit suggestion that it was good because friendships are good.

> I think they are people who work well with their colleagues, whether it's official learning sets within the school, within the learning community or authority, or whether it's just the ad hoc ones, the personal ones they have with other teaching friends; that they get together to do things. (Stakeholder 9)

Both collegiate and community relationships were of importance to both groups. However, the teacher and retired teachers tended to discuss the friendships which they experienced in the profession and relationships with other agencies as opposed to the stakeholder discussions which focused on relationships with parents and children as well as the professional benefits of collegiate interactions.

Family

Family incorporates being in a committed relationship with another person, along with raising any children. The need for family was discussed by 17 out of 23 respondents. Family was the aspect of life the teachers and retired teachers reported valuing most, with participants indicating that they generally put family before work. Every teacher and retired teacher talked about their family and their accounts ranged from the birth of their children, to the enjoyment they got from raising their children, to their relationships with their spouses.

Starting a family and having children were highlighted as being important to four of the respondents when they were asked about positive critical events and all but one of the participants had children and talked about how much they valued them. Two teachers indicated that they felt they had not been able to spend enough time with their families as a result of work, but three retired respondents and two teachers talked about being able to balance their children with work (although they did rely on childcare or additional family support in order to do this when their children were younger). They also put effort into arranging their work around their children to ensure that they were able to balance both:

No, it worked well because I think of all jobs to go back to or to have, teaching is definitely one of the best because you've got the same hours and the same holidays as your child and even work that you've got to do at home can be kept till you've seen to them and put them to bed and then you might have to work a bit later into the night. (Retired Teacher 4)

The needs of family members were mentioned by six retired teachers and three teachers in relation to having to care for others. They indicated the stress, sadness and sometimes guilt, which the poor health of others could cause. Work could act as a distraction but could also make dealing with the requirements of others more difficult. One retired teacher commented that she would have been unable to support members of her family along with the demands of work.

But looking at my life now and the way it has been over the past four, five years, I don't think I could have done it if I had to teach at the same time. And I mean that from both sides. I don't think I could have done justice to either. I don't think I could have done justice to the teaching and I don't think I could have done justice to the family. (Retired Teacher 1)

Family was discussed in relation to work-life conflict by five stakeholders. Some respondents drew on their own experiences of having to work during evenings and weekends to be able to achieve the requirements of the job but also to excel at teaching. They indicated that working longer hours was associated with being a better teacher but they also indicated that this can be accompanied by an impact on their life outside of school. There was an acceptance of the requirement to work beyond the 35 hour working week, but not to the extent that it interfered with other life needs. For example, a respondent discussed the acceptance of high workloads but indicated that this can cause work-life interference.

So I think we have a very strong culture in Scottish Education, that's always been there, that we always work above and beyond. Now most people cope with that well and actually want to do because it's the only way to do a good job and they get on with it. Other people suffer from

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that because they can't manage that work/ life balance and they want to do a good job and therefore that can make them very unhappy. (Stakeholder 10)

Teachers, retired teachers and stakeholders discussed the interference of work on life, in terms of meeting the needs of family. Teachers and retired teachers also focused on the strong emotions that could accompany not being able to meet family needs.

Inner Peace

The need for inner peace is satisfied when individuals seek to consistently realise their own values and are able to make choices which align with these values in external environments (Finnis, 2011). This includes aligning the values of the individual to the values of the school to enable teachers to make choices which are in line with their own preferences. The need for inner peace was discussed by 16 out of 23 respondents.

The alignment of personal and work values was expressed in three main ways by the teachers and retired teachers. Four retired teachers stated that they liked children and that this was one of the reasons they did the job. All but one of the head teachers or retired head teachers reported being able to shape their role and schools in a way that reflected their own values. One respondent reported that she liked that she shared the same values as those of her school as it meant that the children were treated fairly and consistently.

> I think its building up these values and just knowing what's expected of them…And we tend to all work the same way within the school so all the children are treated the same. (Teacher 5)

Running 'out of school' clubs was another way in which teachers reported alignment with their values. Two retired teachers discussed running clubs and had clear passion for both the subject matter and providing the clubs. For example, one talked about the sense of fulfilment she gained from working with her club and indicated that it did not benefit her career in any way other than being enjoyable to do. In both cases, it was clear that the schools supported these initiatives (either through providing additional training or time out of the classroom to run the club) and the teachers'

passion for those subjects meant that the children benefitted from developing additional skills.

Six stakeholders talked about the need to align the values of the teacher to the values of the school or profession, with some going as far as to indicate that teachers would be unable to continue with their career otherwise. Two stakeholders talked about how lack of alignment between personal values and the values of the job could cause individuals to leave the job, with one commenting:

> That said, I think most teachers I've come across it's not an issue because I think the values that you have very often will dictate the route that you will take in terms of your profession, your job, because if your values are not aligned to the school, I think you'll be very happy, very unhappy rather, very early on in your career because there's that mismatch. (Stakeholder 6)

Four stakeholders mentioned the positive aspects of commitment to the job. One of these stakeholders suggested that committed teachers have values which are aligned to the job, stating that "But I think most people who come into it and who stick the course are committed. They feel that it is something that they really want to be doing." The same stakeholder indicated that a sense of commitment was not as strong as a calling but that it showed that a teacher believed "I have something to give here; this is what I want to be doing; I like working with young people."

There is a negative aspect to commitment, whereby one stakeholder talked about feeling guilty when reading teaching documents which are not directly related to work in the school. Another stakeholder indicated that some teachers are perfectionists and may set unrealistic targets for themselves, resulting in higher workloads. A third stakeholder indicated that working late is a matter of 'professional pride and personal commitment' to the job.

The teachers and retired teachers discussed a preference for liking children as part of the inner peace need, suggesting that their connection with children is an expression of personal values, rather than a need to forge relationships or develop them. This could also be seen in the teacher and retired teachers' accounts of satisfying personal

preferences through extra-curricular activities. In comparison, the stakeholders focused on the need to express innate skills and align personal values with those of the school, although they indicated that commitment could be both an internal or external expectation.

Belief System

Belief system is the connection a person has to a higher source of purpose and represents the need for an external (but meaningful) reason for taking action. Vocation is considered to be the way in which an individual's belief system manifests itself in the work domain and refers to the idea that the teachers have been called to do their role by an external or existential force. All participants were asked if teaching was a vocation with 14 out of 23 respondents mentioning that it was. The participants defined vocation in two ways: having natural talent or having an altruistic desire to teach. Three teachers and five retired teachers interviewed considered their job to be a vocation, and out of these four retired teachers indicated that they had always wanted to be a teacher. The others felt that their role was a calling even though they had not initially specifically desired to become a teacher. Three of these individuals mentioned altruism in relation to having a vocation. One teacher and one retired teacher indicated that they would not put in the amount of time they did unless the job was a vocation. Others suggested that one is born to be a teacher, rather than being 'made' by knowledge and training. They talked about being 'the right person' and good at the role, suggesting an ability to realise their natural strengths and that being a teacher was not learned but was something that you are destined to be.

> If you, I think you need to be, I mean everybody keeps saying that, you need to be a very special kind of person to be able to do that job. And I do think you do. I think, maybe not a special kind of person, but a certain type of person to be able to do it and sustain it. (Retired Teacher 7)

Of those who did not consider their role to be a vocation, one of the teachers reported that there was nothing else she could have done. One teacher explained that it was not a vocation because she would put her family first, if forced to make a choice.

Another indicated that a vocation was something she would do if she was not paid, which was not the case for her. This was despite both of them enjoying their job.

From a life perspective, four retired participants mentioned their beliefs and talked about either strengthening or questioning their beliefs more, with the other participants not mentioning their personal belief systems. For example, difficult life circumstances increased focus on external sources of meaning for one retired teacher. In comparison, another participant indicated that this need was very important to her but did not mention questioning her beliefs. It was unclear how this need was satisfied for the participants who did not mention their belief systems.

There were varying accounts by the stakeholders as to whether teachers view their work as a vocation and six respondents believed that teaching was a vocation. Two suggested that the vocation aspects built over time, although another argued that a sense of vocation could reduce over time. One respondent indicated that the job was so challenging that those who didn't consider it a vocation would give up the profession.

> So, I suppose, vocation...it's like a calling, and the easiest way to say it is, it's a calling where you kind of get drawn towards it and if it's just not a vocation for you, if you're not totally committed to the… It's not just even the passing on of knowledge, it's about the development of young people, then you won't…you won't stick by it. (Stakeholder 3)

However, three respondents indicated that there were teachers who did not consider the job as a vocation but who remained in the job anyway. There was no clear agreement on whether teaching provides meaning in work.

There were varying views about whether a vocation was something a teacher would always have had or whether it was something that developed over time. These variations could be seen across both groups of respondents. Personal belief systems were not discussed within the stakeholder interviews which was unsurprising given the focus on the workplace in the interview.

Developing Others

Developing others is the desire to maximise the potential of others. This is different from vocation which is defined by the participants in this study as having the innate talent to teach or an altruistic desire to serve others. It is also different from liking working with children (inner peace) or building relationships with them (harmonious relations). The need for developing others was mentioned by 16 out of 23 participants. Three teachers and three retired teachers reported being interested in developing children. A head teacher mentioned that being away from the children and unable to assist in their development was a downside to her current position. It was clear that developing children was valued by all the participants, with one teacher stating:

> I think I value the opportunities to work with children, and to try and make a difference to their lives.

She went on to say,

> I think it's a, it's a huge duty, if you like, but it's a privilege too because it's fun. (Teacher 1)

A head teacher and a retired head teacher discussed that they enjoyed nurturing children, suggesting the head teachers' wider concerns for the holistic needs of the child. In comparison, classroom teachers' focus was on working with children in relation to building interpersonal relationships which facilitate their learning.

Developing their own children was also a theme, with three teachers and one retired teacher talking about the enjoyment they received from helping their children develop as they grew up. This suggests that enjoying developing children is not just related to job satisfaction but is sought in other parts of the participants' lives. Developing peers or other members of staff was mentioned less than developing children. Although one teacher talked about mentoring probationary teachers, she did so in relation to the mutual development they got from working together.

Developing others was discussed at length by eight stakeholders. They talked about their own experiences in the classroom and how some teachers would choose to

remain in the classroom and not pursue promotion because they enjoyed helping pupils learn and maximise their potential.

> That's why, I think, anybody goes into teaching that they want to do the best for the pupils, they want to experience, they want to impart knowledge and also get pupils to enjoy their lessons and learn well. (Stakeholder 11)

The safety of children was considered by two stakeholders in relation to creating an effective learning environment. The stakeholders talked about being potentially the only source of stability in the child's life and made the link to needing a safe environment in order to facilitate learning. The stakeholders also described the importance that head teachers place on developing their staff and indicated that the development of the children was also important to head teachers, despite the indirect contact that they had with them.

> I would think a happy head teacher is someone who recognises and sees that his staff is flourishing, I'll put that first, that children in the school are flourishing, the staff are able to do their job and they're doing it well. (Stakeholder 10)

One stakeholder talked about the dedication of staff to developing children outwith the classroom. Another stakeholder described personal reasons for developing pupils outside of the school day, which involved organising school activities to enable them to develop and have opportunities which they would not otherwise have received. There is a sense that for some teachers, developing children is about more than what can be achieved within the school day.

Both groups of interviewees discussed the need to develop children. However, the stakeholders also discussed developing staff and the need to create a safe learning environment. In contrast, the teachers and retired teachers discussed developing their own children.

Attaining Status

Status is about the need for a person to be perceived positively by others (Maslow, 1954/1987). The need for status was discussed by 15 out of 23 participants. Status was mentioned in the interviews in relation to the need to be respected and appreciated by managers and parents. The importance of being listened to and having their opinions counted by colleagues and managers, in particular, was raised by one teacher and one retired teacher. Both also talked about the importance of giving others the opportunity to express their views. Four retired and three working teachers described the respect that was gained from the experience that they had. This respect came from their managers and from less inexperienced colleagues and was built up over time.

> It was mutual respect and people as you went on, they did respect your experience as well. Especially, not just people who were above you, but also people who came into the job, were very, did respect you. You helped them a lot but they were very respectful and appreciative on the whole. (Retired Teacher 5)

The status of the profession of teaching was discussed. One retired participant talked about being the first in their family to go on to further education, with another two retired participants mentioning that the previous generation in their family did not have the same opportunities in society. Teaching was a career route from a working to middle class status for some, with few (if any) other equivalent opportunities presented to the respondents in this situation.

> Everyone was just working class, if you like, and when we passed the likes of Highers and got the chance to go to college, it just seemed natural to go to [teaching college]. (Retired Teacher 1).

In comparison, three stakeholders discussed a reduction of status in the role of teacher and head teacher and explained that parents were increasingly likely to question the actions of the teachers. They indicated that higher expectations from the public were not limited to teaching and could be seen in professions outwith teaching and that it was good for parents to engage with the teachers. The reduction in status that has taken place for professionals as a whole was indicated:

So, I think, that for teachers has changed greatly, how they deliver and their role in society. I think, I don't know if they feel they still have the role in society where they are well regarded as professionals because I think you were a teacher and you were a wee bit like the doctor or the minister and people held you in regard. And I don't know if that changed over the years as people, rightly so, became less afraid of engaging with the teacher and speaking to them; you want that from a parent. (Stakeholder 9)

Appreciation was also a theme which emerged from the stakeholder interviews. Four stakeholders talked about the need for teachers to be given praise and to be told they are valued. One stakeholder commented:

The other thing is teachers are not always appreciated by their lords and masters and senior management, and I've probably been on that side of the table as well; and maybe not giving teachers the praise that they require or deserve. So I think two things: one it's harder to do the job as you get older, because of the relationship I think, and if you don't get appropriate praise. And it's not even praise; it's just being appreciated. (Stakeholder 7)

The need for attaining status demonstrated conflicting accounts, whereby the teachers and retired teachers discussed teaching as a profession with status and the stakeholders discussed teaching as reducing in status. The teachers and retired teachers talked about the need for respect from others, while the stakeholders focused on being appreciated by others.

Achievement

Achievement is the need to demonstrate superior abilities in comparison to others. The need for achievement was mentioned by 15 out of 23 participants. Achievement can be considered in relation to gaining promotion. Three teachers and four retired teachers indicated that being a good classroom teacher was both important and desirable and out of those, four reported a lack of desire to pursue promotion due to the challenges of being a head teacher and the amount of administrative work which was expected in this role. However, the classroom teachers talked about pursuing

promotion and where retired classroom teachers had not pursued promotion, they expressed some regret for not doing so.

One retired teacher stated that "sometimes people say why don't you go for promotion? I did sometimes regret it when I was teaching that I didn't do it." She also commented that "I think there was a kind of, you know, how can I put it, a perception from parents outside that if someone was promoted they are a better teacher than the person who was in the class", suggesting that there is the element of comparison which accompanies achievement. One retired classroom teacher and one teacher viewed participating in higher education as achievement, rather than development. Another retired teacher did not pursue promotion in her career but talked about development and promotion interchangeably, expressing mild regret that she did not develop herself more.

The stakeholders discussed how achievement manifests in primary teaching and talked about goals for promotion. Five stakeholders discussed how some teachers actively pursue promotion, being willing to travel the country in order to secure new posts.

> I think some people are driven and thrive on being driven. So you know, they set their goals of, you know, sky's the limit. They go for it. I think others-, I think others get good at what they do and they go to the next level and then they might go to the next level and then the next level but it takes a lot out of them. (Stakeholder 1)

Comparison with others was also discussed. Two stakeholders talked about using collegiate work as an opportunity to assess personal abilities against those of others. Teachers are able to compare themselves with others to enable them to rate their own level of skill. A respondent also highlighted the use of Her Majesty's Inspectorate of Education and other external measurements as a means by which teachers can measure their achievement, even though they are more likely to judge the learning of their pupils as the predominate measure of success.

> But I don't think for a minute that most teachers go into their class each day saying 'What will my external results be like?' That's not what

drives them. But, but they'll be conscious of it. They will be conscious of it. (Stakeholder 2)

Autonomy

Autonomy is the need to be able to choose one's own actions. The need for autonomy was mentioned by 16 out of 23 respondents. This included all teachers and retired teachers. Autonomy in the classroom was discussed by two teachers and one retired teacher in terms of being in control of their own domain. However, two teachers and two retired teachers discussed the lack of autonomy which they had. This could be down to the expectations of the job, doing supply work rather than having their own class, and the structure of the curriculum. Levels of autonomy would change at different stages of their careers. One retired teacher discussed the freedom to teach how she liked in the classroom. However, she also discussed lack of freedom in terms of making broader decisions which were taken by central decision makers.

> I always think that these people who are outwith the actual setting, obviously they have their place, but they're outwith the- your setting, and they do not see the day to day stuff within that setting. So they can't make your judgements, you know, yourself. (Retired Teacher 7)

Other teachers' autonomy was also limited in relation to being able to choose where they wanted to work and the ebb and flow of job opportunities could be seen with four retired participants reporting finding it easy to enter or re-enter the profession, while four teachers found it difficult to enter or re-enter the profession. Teachers were not always free to make choices due to organisational constraints.

Retirement brings about greater levels of freedom and the life domain may provide greater opportunities for satisfying the need for autonomy. Three retired participants talked about being able to do what they want, when they want and enjoying being able to choose which activities they want to be involved in.

> It's like going back to your childhood you know. You don't have to you know, you can, you're free you know. There's that kind of freedom you know, and you can do what you want to do and spend what you want to

spend or whatever or take up on a whim or something and I quite like that. (Retired Teacher 2)

Autonomy was discussed by stakeholders in relation to the *5-14* curriculum, whereby teachers were less able to make choices in what they taught. Four respondents discussed the constraints that the *5-14* curriculum placed around being able to choose what was taught in classrooms. However, there was also an acknowledgement of the fear around losing the security which the *5-14* curriculum offered in terms of a clear understanding of what should be taught. One respondent discussed this in terms of the increased accountability which autonomy brings with it.

So you had targets, but there was a degree of security because if you taught to the tests and you delivered the results. So teachers are going to- if they're in their own universe- But there are issues there because in your own universe there is accountability. (Stakeholder 5)

Another respondent indicated the changes to autonomy which *Curriculum for Excellence* has instigated and that this was impacting on workload of teachers in relation to having to develop new resources. She acknowledged that the approach was part of the curricular ethos but also indicated that teachers were worried about being prepared and effective. Another stakeholder stated that although the new curriculum should give teachers more responsibility, they needed the resources to be able to support its implementation. One also indicated that managerial support was important in supporting teachers through the change from *5-14* to *Curriculum for Excellence*.

In addition to freedom of practice in the classroom (discussed by both groups), the teachers and retired teachers included discussions of being able to choose where to teach and what to do in life. The stakeholders indicated that autonomy was important, despite workplace demands increasing as a result of increased freedom.

5.2.1 Summary of Interview Findings
The interview findings support the 10 identified needs from the three need theories (Finnis, 2011; Deci and Ryan, 2000; Maslow 1954/1987) which are knowledge, harmonious relationships, excellence and mastery, health and vigour, safety, family,

inner peace, belief system, status, and autonomy. The findings also suggest however that 'developing others' and 'achievement' are additional needs that must be satisfied in work and life to provide wellbeing for teachers. The findings and comparisons between the interviewee accounts are summarised in this section.

For health and vigour, the exhausting nature of the job and the energy which came from teaching roles were both discussed. For excitement and security, the concepts of financial security and financial freedom were mentioned, along with having the courage to do what can be a difficult job. The interviews indicated that teachers' personal values tended to be aligned with those of their schools, and that teachers who were unable to satisfy their need for inner peace would not remain in teaching. The need for a belief system suggested that work can be an external source of meaning with the respondents talking about the idea of 'being born to be a teacher'. The need for status was discussed in relation to being appreciated, listened to and respected by others and appeared to be separate from the need for achievement. The excellence and mastery need focused on the desire to learn from others and from the job, as well as the importance of formal training (particularly leadership development). The importance of the family need was very evident, with the respondents concerned that work should not be able to conflict with family life.

Striving for achievement emerged as being important, particularly in relation to achieving promotion. Despite the role of classroom teacher being considered important by interviewees, promotion was valued by teachers as well as head teachers. Comparisons with others were also reported in relation to working with peers or through formal means of comparison such as HMIe inspections. Developing others was also important and suggested an additional need of wanting to help children maximise their potential. The accounts mainly focused on the development of children, although the stakeholders also talked about head teachers developing their staff.

There was often no difference in the way needs were satisfied between teachers and retired teachers, with the needs of relationships, security, family, inner peace and belief system indicating broadly similar themes. For the need for developing others, teachers were more likely to report helping their own children develop as well as

their pupils. Conversely, retired teachers were more likely to discuss the role of teacher as having status and to express regret for not gaining achievement through promotion. Retired teachers indicated the lack of health and vigour which they experienced in later years while working teachers were more likely to report getting energy from doing the job. While there was no difference between teachers and retired teachers reporting that their job was a vocation, retired teachers were more likely to indicate that it had been a vocation from the start of their career.

Needs such as family relations, belief system and inner peace all showed similar themes regardless of whether the interview was with teachers and retired teachers or stakeholders. The stakeholders reported a range of similar perspectives, such as the need to engage with the job (need for vigour) or experiencing teaching as a calling (need for belief system). However they also suggested that some of the needs might be satisfied in different ways. For example, they discussed the need for mastery over the environment as part of the need for excellence and mastery. They also considered that too much commitment to teaching can lead to taking on higher workloads. For the need for knowledge, the teachers talked about the benefits of having worked outside the profession and of their desire to gain knowledge in the life domain through travel while the stakeholders discussed the importance of having a wider understanding of the profession.

Harmonious relations were discussed in relation to friends at work, although for the teachers, their accounts were of building close friendships with colleagues, whereas the stakeholders discussed the importance of collegiality. The stakeholders also extended their discussions to relationships with pupils and parents, whereas the teachers were less likely to discuss these. For autonomy, the stakeholders discussed the *5-14 Curriculum* in comparison to *Curriculum for Excellence* and highlighted the need for more resources to support the new curriculum. The teachers also talked about the need for support, agreeing that too much autonomy may not be good. However, the retired teachers also reported the freedom that came from giving up work and how much they valued being in control of their own destinies.

Despite there being different accounts in some cases between the teacher and retired teacher and stakeholder interviews as to how needs might be satisfied, both groups

provided evidence for the same needs. Where the perspectives differed between groups, both were incorporated into the survey development and the different accounts of how those needs might be satisfied provided a wider scope of data with which to design the survey measures of need satisfaction. However, there were no differences in the 12 overarching themes which were identified. The findings from the need satisfaction scales are outlined in the following section.

5.3 Survey Findings: The Important Needs

This section presents the findings from the survey. It provides an overview of the needs which the survey respondents indicated were important and presents the findings from the principal component analysis. It concludes with a summary of the survey findings. The survey data was used to further test Hypothesis 1a (satisfaction of the following needs influence wellbeing: 1) knowledge, 2) harmonious relationships, 3) excellence and mastery, 4) health and vigour, 5) safety, 6) family, 7) inner peace, 8) belief system, 9) status, 10) autonomy) and to explore the reliability of the two additional needs (developing others, and achievement) identified by the interviews. The questionnaire is provided in Appendix 3.

The mean age of respondents was 44.8 years, and 90.8 percent of the sample was female. 56.3 percent identified themselves as classroom teachers and the average role tenure was 10.87 years. 85.6 percent of the sample worked full time. Full demographic information from the survey can be found in Chapter 4.

5.3.1 Importance of Needs

Participants were asked to rate the importance of each need (as identified from the interviews and described in section 4.5.7), to assess whether the same needs would emerge as being important when tested on a representative sample of teachers. Each need was presented in the form of a word or statement, with each item rated on a Likert-type scale between one and five, with anchors of 1 = very unimportant and 5 = very important. Each word or statement indicated a need which might be considered to be important to primary teachers and was not considered in relation to either work or life. Table 8 includes the mean scores and standard deviations for each need. The majority of needs were considered to be important. However, 'Attaining status' was considered to be a less important need, with family, harmonious relationships and

health and vigour considered to be most important. 'Excitement' was used as the reversed indicator for the need for security which was considered the least important need. The score for excitement (3.9) was reversed to provide a score of 2.10 for security.

Table 8 Scale Means and Standard Deviations for Importance of Needs

Need	n	Mean	SD
Family	174	4.89	0.45
Harmonious Relationships	174	4.71	0.47
Health and Vigour	174	4.69	0.55
Inner Peace	173	4.42	0.61
Freedom	173	4.35	0.76
Knowledge	174	4.28	0.61
Developing Others	173	4.22	0.62
Achievement	174	4.08	0.65
Belief System	173	4.02	0.96
Excellence and Mastery	174	3.85	0.68
Attaining Status	173	2.99	0.91
Security	173	2.10	0.61

Note: Scale of 1-5, 1 = very unimportant and 5 = very important

5.3.2 Identification of Dimensions for Satisfaction in Work and Life

As mentioned in Chapter 4, the 'Satisfaction of Needs in Work Scale' and 'Satisfaction of Needs in Life Scale' were developed to assess whether each of the needs identified from the interviews would also emerge as being important. A principal component analysis was used to determine whether the needs grouped into the 12 proposed need categories and this section presents the findings. The principal component analysis was conducted to address Hypothesis 1b: The pattern of need satisfaction in work and life will conform to a ten factor model which corresponds to the needs of: 1) knowledge, 2) harmonious relationships, 3) excellence and mastery,

4) health and vigour, 5) safety, 6) family, 7) inner peace, 8) belief system, 9) status, 10) autonomy. In addition, it was expected that the two additional needs of developing others and achievement would also emerge. This section provides the outputs of the principal component analysis.

An exploratory principal component analysis was conducted and a visual inspection of the data was combined with a theoretical assessment of the variables to assess which variables belong to which dimensions. This was done to test the hypothesis that there are 12 needs and it was predicted that 12 factors would emerge. Principal component analysis was run using varimax rotation. Bartlett's test of sphericity was significant ($p < 0.001$) and the Kaiser-Meyer-Olkin test was 0.782 which is above the .6 range that Pallant (2010) recommends. The correlation matrix was inspected for correlations where $r > 0.30$ and given that there were some correlations at 0.30 and above, the matrix was considered factorable (Tabachnick and Fidell, 2013). This provided an initial 13 factor solution which explained 66.45 percent of the variance.

The scree plot (Figure 4) suggested a five factor solution. The rotated component matrix was inspected for variables which loaded at 0.6 or more. This initially suggested five factors. However, the content of the variables was then visually inspected to consider any variables which had smaller loadings but which were conceptually similar to variables which loaded at 0.6 or above within that factor. This resulted in a further two potential components, with the minimum variable loading at 0.432. The seven identified components explained 50.26 percent of the total variance. Each component had approximately normal distribution.
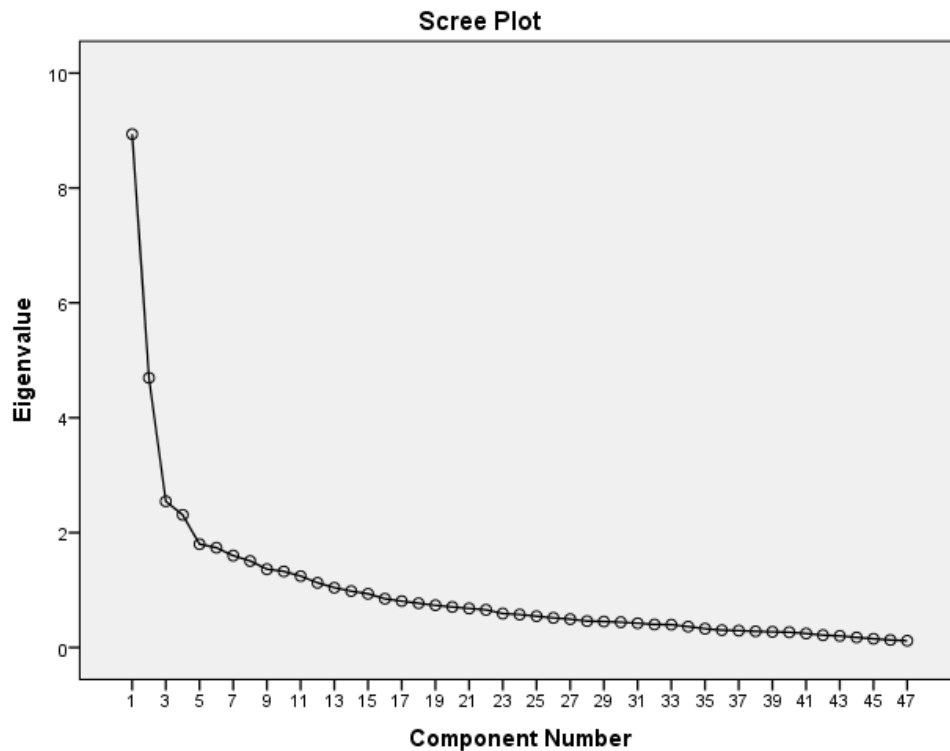
Figure 4 Scree plot for principal component analysis

Cronbach reliability calculations were then performed to assess the internal reliability of each factor. The alphas ranged from 0.646 to 0.827. The individual variables were then inspected against the alpha values to check whether they had an adverse effect on the alpha figure and removed if this was the case. The factors and their variables and Cronbach alpha values are listed in Table 9, along with the means, standard deviations and ranges for each of the components.

The principal component analysis indicated that the needs do not combine into twelve expected groups as hypothesised. It was expected to produce a 12 factor solution which reflected this framework. However, the analysis indicated that there were seven conceptual groups of need variables which are important for work and life. Each group was considered to represent a dimension which contained a related group of variables and allowed items which were not grouped into one of these groups to be discounted. The dimensions important for work are: Person-Profession Alignment, Professional Development and Relations in Work (the items that loaded on these dimensions were from the Satisfaction of Needs in Work Scale, see Table 5,

Chapter 4). The dimensions important for life are: Personal Acceptance and Personal Development, (the items that loaded on these dimensions are from the Satisfaction of Needs in Life Scale, see Table 6, Chapter 4). However, two dimensions span both the work and life domains. The Achievement dimension contains items from both the work needs scale and the life needs scale. The Work-Life Interface dimension contains items from the work needs scale only, but contains the items which refer to the balance with life. It is these dimensions which were identified as being particularly important to satisfy. The other variables are deemed to have less impact in relation to need satisfaction in work and life and are therefore discounted (Kline, 2000). These findings suggest that both the work and life domains contribute to the satisfaction of a teacher's needs.

Personal Acceptance considers relationships with others and the extent to which an individual can be his or her self. It includes needs of respect and appreciation ('I am appreciated by others in my personal life' and 'I am respected by others in my personal life'). Personal Development considers the ability of an individual to develop in life (I am able to make improvements in my life) and leisure activities (The recreational activities which I pursue allow me to develop my skills), as well as how much energy they receive from their personal life.

Person-Profession Alignment considers the ability of an individual to think and act in congruent ways as well as gaining meaning from their job. It includes being true to one's self, being in control of choices and gaining meaning from the job. Professional Development is being able to develop and make improvements in the workplace. Variables such as 'I received feedback from others which helps me to understand the needs of my job' and 'I know about the wider standards of my profession' indicate having a better understanding of the skills which the individual needs. The Professional Development dimension also contains variables which consider a need for energy and for safety ('My job gives me energy' and 'My workplace is a safe place'). Relations in Work consists of the interactions with others in terms of working with them and helping to develop them. The variable 'I am appreciated by others in my workplace' may indicate a measure of the quality of the relationships. This dimension indicates the reciprocal interactions involved in

building relationships with others and also indicates that teachers may use relationships in order to develop others.

Achievement combines the achievement of personal goals and achievement in relation to others. It indicates that intrinsic and extrinsic achievement is conceptually similar and that they are two aspects of the same dimension. Work-Life Interface considers the need for life to be free of interference from work, including keeping health and family needs free from work requirements. The variable, 'I balance the needs of my family with the needs of my job', indicate the need for the individual to have the resources to gain fulfilment from meeting family requirements while also being able to meet the requirements of the job. 'I switch off from my job in my life outside my work' suggests the ability to prevent the psychological interference which work may have on life. The final variable, 'my job does not affect my health' considers the need to avoid negative physiological effects in addition to the psychological and social effects of the other two statements.

Each of the needs was shown to be important from both the interview accounts (section 5.2) and the importance of need findings (section 5.3.1). However the seven factors indicate the groups of need statements which are interrelated and indicate seven dimensions which are important to satisfy in the work and life domains. Hypothesis 1a was partially supported, whereby most needs were identified as being important, although two additional needs were identified. Hypothesis 1b was unsupported, except for the need of Achievement. Instead, individuals appear to satisfy seven dimensions in work and life.

Table 9 Identified dimensions and means, standard deviations, ranges and Cronbach alpha, reliability values

										Satisfaction of Needs in Work

Dimension	Number of Items	Cronbach's Alpha	n	Mean	SD	Range	Mini-mum	Maxi-mum	Items	
Person-Profession Alignment	5	.81	168	19.77	3.03	16	9	25	1.	My decisions at work are true to my feelings.
									2.	My values fit with the values of my workplace.
									3.	I consider my job to be a vocation.
									4.	My job gives me a sense of meaning.
									5.	My behaviours at work reflect my own views and opinions.
Professional Development	6	.81	170	23.24	3.63	22	8	30	1.	I receive feedback from others which helps me to understand the needs of my job.
									2.	I know about the wider standards of my profession.
									3.	My job allows me to develop my skills.
									4.	I am able to make improvements in my workplace.
									5.	My job gives me energy.
									6.	My workplace is a safe place.
Relations in Work	4	.68	171	16.61	1.84	11	9	20	1.	I am appreciated by others in my workplace.
									2.	I have good relationships with others at work.
									3.	I develop others in my workplace.
									4.	I meet the needs of children in my school.

Table 9 Continued

									Satisfaction of Needs in Life

Dimension	Number of Items	Cronbach's Alpha	n	Mean	SD	Range	Mini-mum	Maxi-mum	Items
Personal Acceptance	7	.84	169	30.33	3.01	14	21	35	1. I have good relationships with my family. 2. I have good relationships with others in my personal life. 3. I express and live my values. 4. I am appreciated by others in my personal life. 5. I am respected by others in my personal life. 6. My behaviours in my personal life reflect my own views and opinions. 7. My decisions in my personal life are always true to my feelings.
Personal Development	3	.69	173	11.35	1.72	9	6	15	1. I am able to make improvements in my life. 2. The recreational activities which I pursue allow me to develop my skills. 3. My life outside my work gives me energy.

Table 9 Continued

Satisfaction of Needs Spanning Work and Life

Dimension	Number of Items	Cronbach's Alpha	n	Mean	SD	Range	Mini-mum	Maxi-mum	Items	
Achievement	4	.70	169	14.92	2.11	12	8	20	1.	I am good at what I do in my personal life in comparison to others.
									2.	I am good at what I do in comparison with others.
									3.	I achieve the life goals I set for myself.
									4.	I achieve the work goals I set for myself.
Work-Life Interface	3	.65	170	8.51	2.65	12	3	15	1.	I balance the needs of my family with the needs of my job.
									2.	I switch off from my job in my life outside my work.
									3.	My job does not affect my health.

5.3.3 Summary of Survey Findings: The Seven Dimensions

Each of the seven dimensions outlined above is considered to be important to living a fulfilled life in either the work and life domains (or both) and this finding addresses Hypothesis 1b. The results of the principal component analysis suggest that some of the seven dimensions identified are important for work only, some are important for life only, and some are important for both. The content of each dimension is explained and discussed in detail in Section 8.3.1.

5.4 Chapter Summary

The findings presented in this chapter indicated that statements which were developed to correspond to the 12 identified needs did not show the expected relationships. Instead seven work and life dimensions which must be satisfied for wellbeing were identified. Each of these dimensions contains a group of need variables. For example, relationship and inner peace variables are grouped into a single life dimension of Personal Acceptance. The dimensions were subsequently used to test the associations between work-life orientation, need satisfaction and wellbeing, with the effects of carer and life stage on need satisfaction also being considered. Chapter 6 presents the findings which show these associations. It also shows which dimensions are associated with optimised wellbeing.

Chapter 6
Findings: Associations between Work-Life Orientation, Need Satisfaction and Wellbeing

The previous chapter provided support for the seven dimensions which are important in work and life in a teaching context (RQ1/ H1a & b). The interviews suggested that there were two further needs (achievement and developing others), in addition to providing support for the 10 which were hypothesised. Survey items were developed to further assess the 12 identified needs. However, only seven dimensions emerged as being important.

Chapter 6 presents additional findings from the survey research which were used to examine Research Question 2 and 3 (What orientation to work and life leads to optimum levels of need satisfaction?; How do (a) promotion (b) tenure in role (c) age and (d) gender influence work-life orientation, need satisfaction, and wellbeing?). These questions were addressed by testing a series of hypotheses. Chapter 6 begins by reporting a series of descriptive statistics for the measures of orientation to work and life and wellbeing. It then presents hypotheses tests investigating the associations between work-life orientation, wellbeing and need satisfaction. The results indicated that a balanced work-life orientation was most likely to result in optimised wellbeing and need satisfaction (confirming Hypothesis 2a and 2b). Multiple regressions are then reported to understand the relationship between the needs and wellbeing. A consideration of the effects of age, gender, role and role tenure follows and these findings investigate whether life or career stage had an effect on wellbeing, work-life orientation or need satisfaction (Hypothesis 3).

6.1 Descriptive Statistics

Work-life orientation is the energy which an individual directs towards work or life, or both. This was measured by one questionnaire item. Figure 5 indicates the number of individuals who directed their energy to either work, life or report a balance between the two domains. This question was asked in order to investigate whether

there would be an association between the extent to which individuals direct their energy to the work or life domains and their need satisfaction and wellbeing. The associations between work-life orientation and need satisfaction and wellbeing are reported in later sections of this chapter. The proportion of participants who reported a high weighting towards work was 27.6 percent (n=48), with 38.5 percent (n=67) reporting some weighting towards work and 25.9 percent (n=45) experiencing equal balance. Only 1.1 percent (n=2) were very weighted towards life and 5.2 percent (n=9) somewhat weighted towards life. Three participants did not complete this information. It is clear that orientation is skewed towards work, with fewer respondents indicating an orientation to life.
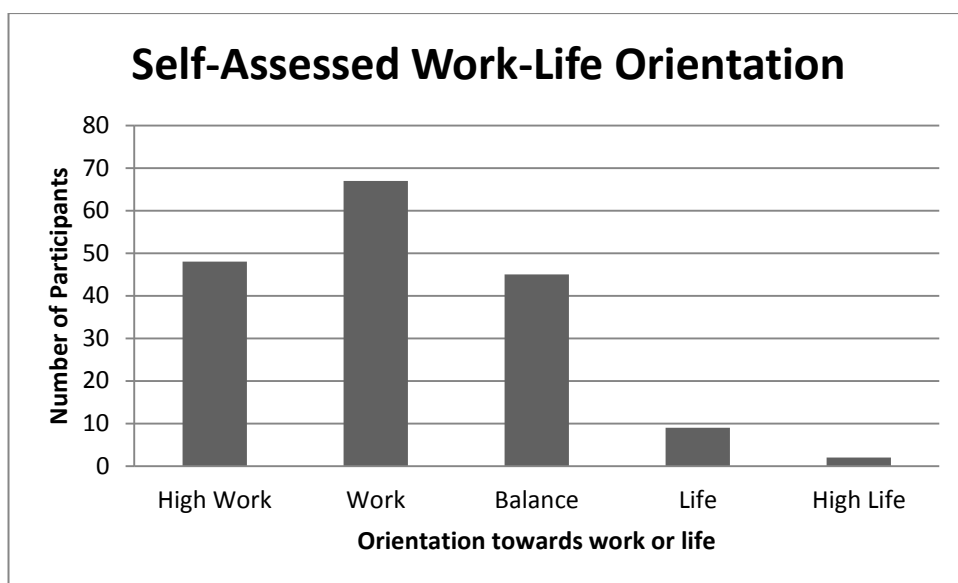

Figure 5 Graph of distribution of Self-Assessed Work-Life Orientation

Wellbeing

Respondents were asked to rate their wellbeing by completing the Scale for Positive and Negative Affect (SPANE), Satisfaction with Life Scale and Meaning in Life scale. Each of the scales was checked for assumptions of normality, prior to performing Pearson's correlations (Pallant, 2010). While affect and life satisfaction are commonly used measures of subjective wellbeing, it was also necessary to demonstrate that the meaning in life measures were related to the other measures of wellbeing. Table 10 shows the number of items, Cronbach alpha reliability coefficients, means and standard deviations for each of the wellbeing scales from the survey. It includes correlations between the wellbeing measures. The following

section outlines the reliability of the wellbeing scales, their mean scores and an outline of the correlations between the scales. Any differences between age groups, gender, tenure or role for these scales are discussed in section 8.3.2 as part of Hypothesis 3a-3d.

A summary score for positive SPANE and negative SPANE was computed by summing the scores for all six items on the respective SPANE scales. The mean positive score was 23.25 (s.d. = 3.43, α = .87). The average negative score was 14.58 (s.d. = 3.74, α = .83). Six respondents had missing data and were therefore excluded and one respondent did not complete this questionnaire. A summary score for life satisfaction was computed by summing the scores for all 5 items on the life satisfaction scale. Scores could range from a minimum of 5 to a maximum of 35. The mean score was 26.37 (s.d. = 5.92, α = .90). One respondent did not complete this questionnaire and another respondent did not complete one of the questions and was therefore excluded.

The Meaning in Life scale contained 10 items and a summary score for presence of meaning was computed by summing the scores for five items on the Meaning in Life scale. Search for meaning was computed by summing the scores for the remaining five items on the Meaning in Life scale. For each scale, the scores could range from 5 to 35. The mean score for presence of meaning was 28.84 (s.d. = 4.00, α = .84).

The mean score for search for meaning was 15.73 (s.d. = 7.40, α = .90). Three respondents had missing data and were therefore excluded from the calculations and one respondent did not complete this questionnaire. The scores suggested presence of meaning tended towards the higher end of the scale and the respondents were less likely to search for meaning. The Search for Meaning scale data had slight negative kurtosis. This was due to a number of respondents (n = 17) scoring the lowest possible search for meaning score. It is possible that the nature of the profession means that teachers are less likely to search for meaning or that the average age of the respondents (44.8 years) may mean that they search less for meaning than student populations might. Given the number of respondents (n = 170), this distribution was not considered to be problematic for the subsequent calculations (Tabachnick and Fidell, 2013).

Table 10 Means, Standard Deviations and Correlations between wellbeing scales

	Items	Alpha	n	Mean	SD	Min	Max	1	2	3	4	5	6	7	8	9	10	11
1 Age	1	-	169	44.80	11.33	22	64	1										
2 Role Tenure	1	-	170	10.87	9.33	0	38	.56**	1									
3 Life Satisfaction[1]	5	.90	172	26.37	5.92	7	35	-.06	-.04	1								
4 Positive Affect[2]	6	.87	169	23.25	3.43	12	30	-.10	-.03	.59**	1							
5 Negative Affect[3]	6	.83	171	14.58	3.74	7	25	.04	.06	-.50**	-.56**	1						
6 Presence of Meaning[4]	5	.84	170	28.84	4.00	16	35	.05	.07	.69**	.51**	-.44**	1					
7 Search for Meaning[5]	5	.90	170	15.73	7.40	5	35	-.16*	-.03	-.33**	-.37**	.30**	-.38**	1				
8 ONS Life Satisfaction[6]	1	-	170	7.64	1.55	1	10	.02	.05	.73**	.61**	-.43**	.57**	-.29**	1			
9 ONS Worthwhile[7]	1	-	169	8.20	1.29	3	10	.12	.00	.54**	.53**	-.39**	.59**	-.29**	.68**	1		
10 ONS Happy[8]	1	-	170	7.51	2.04	0	10	.05	.13	.53**	.59**	-.41**	.46**	-.17*	.65**	.49**	1	
11 ONS Anxious[9]	1	-	170	3.35	2.86	0	10	.02	-.07	-.31**	-.36**	.42**	-.34**	.17*	-.37**	-.36**	-.52**	1

**Correlation is significant at the 0.01 level (2-tailed).   1. Life Satisfaction Scores can range from 5 – 35   3. Negative Affect Scores can range from 6 to 30

*Correlation is significant at the 0.05 level (2-tailed).   2. Positive Affect Scores can range from 6 to 30   4. Presence of Meaning Scores can range from 5 to 35

5. Search for Meaning Scores can range from 5 to 35   6. ONS scores can range from 0 to 10

The ONS survey questions (ONS, 2012a; ONS, 2012b; ONS, 2011) provided overall assessments of four dimensions of wellbeing: satisfaction, worthwhile, happiness, and anxiety. For each question, the scores could range from 0 to 10. Four respondents did not complete this scale and one respondent did not complete the scale for worthwhile.

For satisfaction with life, Pavot and Diener (2009) suggest that most groups fall into a range of 23-28. For positive emotions, the mean was slightly higher than the average mean score of 22.05 reported by Diener et al (2010). The respondents also had slightly lower negative emotions than the mean score of 15.36 reported by Diener et al (2010). Their balance of emotions was higher than the mean score of 6.69 reported by Diener et al (2010). For presence of meaning in life, Steger et al (2006) indicate that average presence of meaning ranges between 23.5 and 24. The presence of meaning in life mean was 28.84 in this case. Steger et al (2006) indicate that the average search for meaning ranges between 22.5 and 23.1. The search for meaning in life mean was lower at 15.73.

Correlations between the measures of wellbeing (see Table 10) provide a check that they measured complementary but non-identical constructs. The life satisfaction scores showed a correlation with the overall affect score. There was a positive correlation with positive emotions score ($r = 0.59$, $n=169$, $p < 0.01$) and negative correlation with the negative emotion score ($r=-0.50$, $n=170$, $p < 0.01$) as would be expected. Life satisfaction was highly correlated with presence of meaning ($r=0.69$, $n=168$, $p <0.01$) but had a moderate negative correlation with search for meaning ($r-0.33$, $n=168$, $p < 0.01$). SPANE Positive (positive emotions) correlated with presence of meaning ($r = 0.51$, $n = 166$, $p <0.01$) and with search for meaning ($r= -0.37$, $n=165$, $p < 0.01$). SPANE Negative correlated negatively with presence of meaning ($r=-0.44$, $n = 167$, $p < 0.01$) and positively with search for meaning ($r=0.30$, $n = 167$, $p < 0.01$). As expected, the correlations indicated that the wellbeing measures were related but did not measure the same things.

6.2 Associations between Work-Life Orientation, Wellbeing and Need Satisfaction

6.2.1 Hypothesis 2a: needs are most satisfied when work-life orientation is in balance

Hypothesis2a was considered by assessing the level of need satisfaction in each category of work-life orientation to test whether directing energy to work or life (or both) would have any effect on need satisfaction. As can be seen in Figure 6, the seven dimensions (which were established using the principal component analysis, see Section 5.3.2) were considered in relation to each of the categories of work-life orientation. The average score for each dimension was plotted for each category. When each dimension was mapped against work-life orientation, a balanced orientation resulted in optimum need satisfaction. Table 11 includes the median scores for each dimension, split by the five work-life orientation categories, again showing that the balanced orientation category was associated with the highest satisfaction of needs.
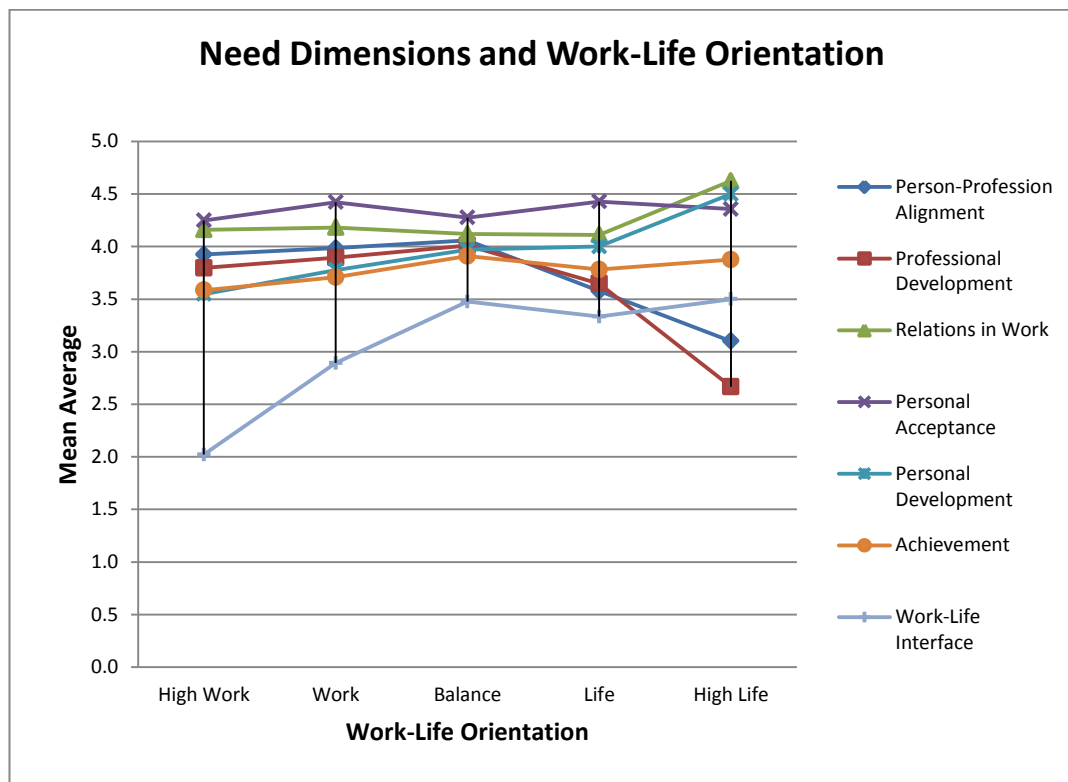

Figure 6 Means of Work and Life Needs by Orientation to Work

Pattern of Satisfaction of the Seven Dimensions in Relation to Work-Life Orientation

The extent of need satisfaction where orientation was to work and life varied according to the particular need dimension. The Personal Development dimension increased with a higher orientation to life and dropped when orientation was towards work, as would be expected. However, Personal Acceptance, while fluctuating a little, was generally maintained regardless of orientation.

Two work dimensions reduced when orientation was to life, where both Person-Profession Alignment and Professional Development dropped substantially (although the Relations in Work dimension increased). However, the work dimensions did not increase with a higher orientation to work. Instead, Person-Profession Alignment and Relations at Work remained relatively static. Professional Development needs reduced where orientation was to life, but also fell a little when orientation was to work.

Work-Life Interface dropped when orientation was to work but did not increase when orientation was to life, as would have been expected. Achievement remained relatively static when orientation was to life but fell when orientation was to work.

However, a visual inspection indicated that the optimum balance of needs was associated with a balanced orientation to work and life. These findings are trends, rather than showing statistical relationships, however, they do provide an initial insight into how needs are satisfied which provides interesting insight for consideration. An inspection of the median scores (Table 11) indicated that optimised need satisfaction scores were in the balanced orientation category. Kruskal – Wallis tests were run, and given that the pattern of need satisfaction did not differ consistently between all categories, the tests were not significant, except for Work Life Interface needs (x^2 (4, n= 167) =65.48, p=.001) and Personal Development (x^2 (4, n= 170) =14.00, p=.007).

Table 11 Median Scores for each dimension/ scale in relation to work-life orientation

Dimension	Orientation to Work or Life				
	High Work	**Work**	**Balance**	**Life**	**High Life**
Life Satisfaction	24	28	30	26	20.5
Positive Affect	21.5	24	24	25	20.5
Negative Affect	16	15	14	16	19.5
Meaning in Life (presence)	28.5	30	30	27	29.5
Meaning in Life (search)	16	14	17.50	13	14.5
Person-Professional Alignment	4	4	4	3.60	3.1
Professional Development	3.8	4	4	3.83	2.67
Relations in Work	4.25	4	4	4	4.63
Personal Acceptance	4.29	4.43	4.29	4.57	4.36
Personal Development	3.67	4	4	4	4.5
Achievement	3.75	3.75	3.75	3.75	3.88
Work-Life Interface	2	3	3.5	3.33	3.5

The data supported the hypothesis that needs are most satisfied when there is a balanced work-life orientation, with a balanced orientation to work and life showing the optimum median scores for measures of need satisfaction. However, directing orientation to the work domain did not increase the satisfaction of work needs or reduce the satisfaction of life needs in uniform ways.

6.2.2 Hypothesis 2b: wellbeing is optimised when there is a balanced work-life orientation

Work-life orientation was associated with optimum need satisfaction, as demonstrated in Section 6.3.1. The relationship that work-life orientation had with optimum wellbeing was the focus of Hypothesis 2b and is outlined in this section.

Work-life orientation was considered in relation to wellbeing to investigate the associations between the two variables. The average scores for each work-life category were converted to Z scores so that they could be directly compared and mapped onto a graph to indicate how the wellbeing scores change with orientation to work. This can be seen in Figure 7 which indicates that where orientation was balanced between both work and life, wellbeing was optimized. The graph splits the cases into those who reported a high orientation to work, those who reported an orientation to work, those who reported a balanced orientation between both domains and those who reported an orientation to life and a high orientation to life. The average wellbeing scores for each category were then plotted and life satisfaction and presence of and search for meaning were higher and negative affect was lower for the cases in the balanced orientation category. Although positive affect increased in the orientation towards life category, the average life satisfaction and presence and search for meaning scores in life were all lower.
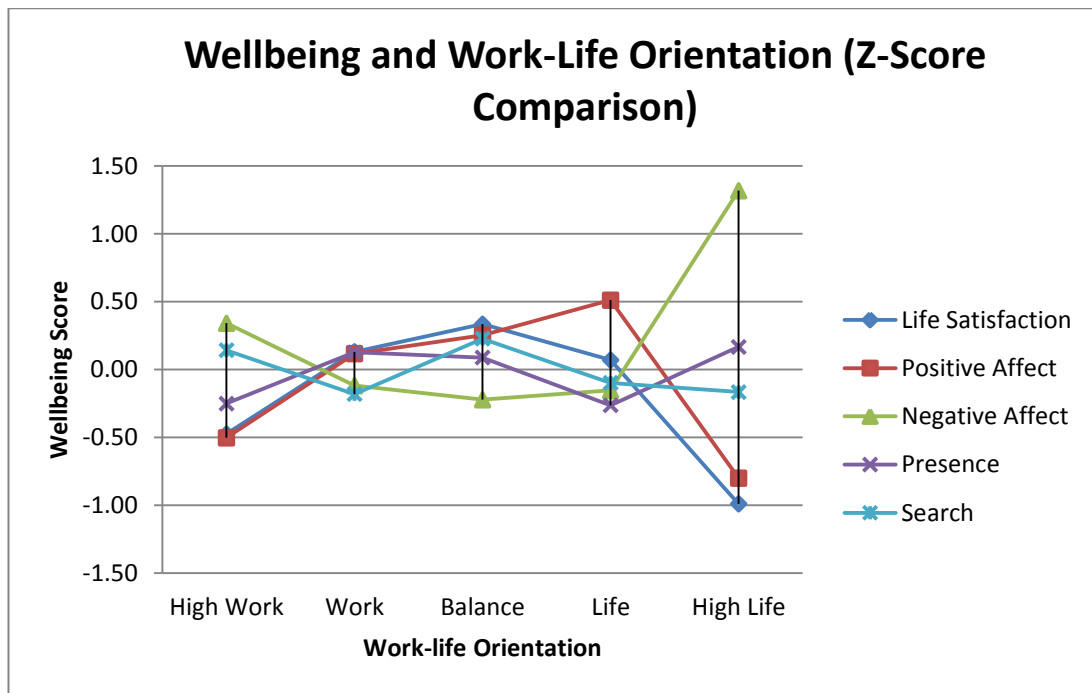
Figure 7 Wellbeing means by work-life orientation categories

Pattern of Wellbeing in relation to Work-Life Orientation

Positive emotions increased as orientation moved towards life, but then dropped again when the orientation was highly towards life. They decreased when orientation was towards work. Negative emotions were lowest when there was a balanced orientation, however there was very little increase until orientation was highly towards work or highly towards life. Life satisfaction was also highest when work and life was balanced and dropped when the orientation moved to work or life. Presence of meaning increased as orientation moved towards work but reduced again when orientation moved to high work. It was maximized when at high life, but only marginally compared to an orientation to work. Search for meaning appeared highest when there was a balance between work and life, but dropped when orientation was either towards work or life. There was an increase in search for meaning when orientation was highly towards work.

Given the low level of respondents (n=2) in the high life category and the unexpected fluctuations in presence of meaning, the responses of each individual were inspected. One individual had a higher than expected presence score, which could explain the rise in presence of meaning. If a dummy variable was substituted using the average

score of the life orientation (27.78) this brought the score to 27.89 which would mean that there was no change in presence of meaning when orientation moved from life to high life.

Despite the fluctuations in individual measures of wellbeing, the optimum orientation appeared to be towards balance between work and life, meaning that Hypothesis 2b is supported. Orientation to work did not impact on wellbeing by much, with presence of meaning improving. Kruskal-Wallis tests confirmed that there were significant differences between work-life orientation and life satisfaction, $x2(4, n= 169) =17.93$, $p=.001$, positive affect, $x2(4, n= 166) =16.53$, $p=.002$, and negative affect, $x2(4, n= 168) =9.61$, $p=.047$. The differences in meaning in life (presence and search) were not significant. As can be seen in Table 11 which includes the median scores for wellbeing for each work-life orientation category, for life satisfaction the highest median score (Md = 30) was for a balance between work and life. For negative affect, the lowest median score (Md = 14) was for a balance between work and life. The median score increased to Md = 25 where orientation was towards life for positive affect (compared to Md = 24 where orientation was balanced), but dropped again to Md = 20 when orientation was highly towards life.

6.2.3 Hypothesis 2c: Wellbeing is explained by the satisfaction of needs in work and life

Hypothesis 2c was examined firstly by correlations between need satisfaction scores and the measures of wellbeing and then by multiple regressions to test the effects of each need dimension on the measures of wellbeing. Correlations between the dimension need satisfaction scores and measures of wellbeing are displayed in Table 12. A range of correlations could be seen, but in general, satisfaction of the seven dimensions appeared to be moderately positively associated with wellbeing (life satisfaction, positive affect and presence of meaning) where $p<.05$, ranging from $r = .25$ to $r = .51$ and negatively associated with negative affect and search for meaning, ranging from $r = -.18$ to $r = -.44$. This suggested that there was a positive association between satisfied work and life needs and wellbeing.

Table 12 Correlations between work and life needs and wellbeing.

	1	2	3	4	5	6	7	8	9	10	11	12
1 Person-Profession Alignment	1											
2 Personal Acceptance	.24**	1										
3 Professional Development	.60**	.20*	1									
4 Achievement	.19*	.55**	.16*	1								
5 Relations in Work	.46**	.32**	.47**	.28**	1							
6 Work-Life Interface	.16*	.22**	.22**	.28**	.14	1						
7 Personal Development	.04	.39**	.12	.42**	.15	.38**	1					
8 Life Satisfaction	.25**	.50**	.27**	.39**	.13	.40**	.33**	1				
9 Positive Affect	.27**	.32**	.42**	.24**	.24**	.44**	.30**	.59**	1			
10 Negative Affect	-.14	-.28**	-.25**	-.21**	-.13	-.44**	-.19*	-.50**	-.56**	1		
11 Meaning in Life (Presence)	.33**	.51**	.31**	.37**	.27**	.31**	.27**	.69**	.51**	-.44**	1	
12 Meaning in Life (Search)	-.10	-.25**	-.18*	-.02	-.15	-.10	-.06	-.33**	-.37**	.30**	-.38**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Multiple Regression Using Satisfaction of the Seven Dimensions and Wellbeing

The correlations indicated that work and life needs are associated with wellbeing. The seven dimensions of need satisfaction (identified by the principal component analysis) were independent variables, and measures of wellbeing (life satisfaction,

positive emotions, negative emotions, and presence of meaning in life) were dependent variables. This provides a more robust test of Hypothesis 2c.

Normality, linearity and homoscedasticity were checked and considered acceptable. Pearson correlations were also inspected to determine which independent variables should be included (see Table 12). The dimensions were only included in the multiple regression if they correlated with the wellbeing measure at above 0.3 and below 0.7 (Pallant, 2010). This meant that 'search for meaning' was excluded as a dependent variable and the dimension Relations in Work was not used as an independent variable. Outliers were removed after the initial regression calculations (Tabachnick and Fidell, 2013).

Initial checks for multicollinearity, normality, linearity, homoscedasticity and independence of residuals were conducted. Multiple regression outputs were also checked for outliers using Mahalanobis distances and the outliers were removed where appropriate and the multiple regression calculations re-run. Table 13 provides a summary of which needs were tested in relation to each measure of wellbeing as well as the un-standardized beta (B), standard error (SE B), standardized beta (β) and significance (p) for each need. It also includes the measure of variability (R^2). The full multiple regression data are in Appendix 4.

The multiple regressions on life satisfaction showed that it was explained by satisfaction of the dimensions and that the relationship was significant, $F (4, 160) = 20.95$, $p < .001$. R^2 is .34 (adjusted $R^2 = .33$) therefore 34 percent of the variance in life satisfaction could be explained by the four groups of needs. The dimensions of Personal Acceptance and Work-Life Interface contributed nine percent and seven percent of the variance respectively. These two dimensions had the strongest relationship with the overall level of life satisfaction. Neither Achievement nor Personal Development contributed to life satisfaction.

For positive affect one outlier was removed and the multiple regression run again. Satisfying dimensions of needs explained positive affect and that the relationship was significant, $F (3, 159) = 27.12$, $p < .001$. R^2 is .34 (adjusted $R^2 = .33$), therefore 34 percent of the variance in positive affect could be explained by the three groups of

needs. The dimensions of Professional Development and Work-Life Interface needs contributed six percent and ten percent of the variance respectively. These two dimensions had the strongest relationship with the overall level of positive affect. Personal Acceptance did not contribute to positive affect.

The regression equation conducted for negative affect included only one independent variable based on initial inspections of the correlations. The calculations showed the Work-Life Interface dimension explained negative affect and that the relationship was significant, $F(1, 165) = 40.07$, $p < .001$. $R^2 = .2$, ($R^2 = .19$), therefore 20 percent of the variance in negative affect could be explained by this group of needs. Work-Life Interface contributed 20 percent of the variance.

For presence of meaning, one outlier was removed and the multiple regression run again. The calculations showed that presence of meaning was explained by dimensions of needs and that the relationship was significant, $F(5, 157) = 16.77$, $p < .001$. R^2 is .35 ($R^2 = .33$), therefore 35 percent of the variance in presence of meaning could be explained by the groups of needs. Personal Acceptance contributed eight percent of the variance respectively. Person-Profession Alignment, Professional Development, Achievement and Work-Life Interface did not contribute to presence of meaning in life.

The multiple regressions for each of the wellbeing measures suggested that the dimensions of Personal Acceptance, Work-Life Interface and Professional Development had the greatest positive effects on wellbeing. Work-Life Interface had a significant effect on subjective wellbeing (Life satisfaction and Affect). Professional Development was only significant in relation to positive affect and Personal Acceptance was also significantly associated with positive affect and presence of meaning. The remaining dimensions, Person-Profession Alignment, Achievement, Relations in Work and Personal Development may not have had as much of an effect when addressing wellbeing.

Table 13 Multiple regression data for the effects of need satisfaction on wellbeing.

Life Satisfaction	B	SE B	β	p	R^2
Constant	-6.28	4.012		p = .120	
Personal Acceptance	0.73	0.15	.37	p = .000	
Achievement	0.25	0.22	.09	p = .258	
Work-Life Interface	0.63	0.16	.28	p = .000	
Personal Development	0.13	0.26	.04	p = .614	
					0.34
Positive Affect					
Constant	6.48	2.45		p = .009	
Personal Acceptance	0.22	.077	.19	p = .005	
Professional Development	0.27	.069	.27	p = .001	
Work-Life Interface	0.45	.090	.34	p = .001	
					0.34
Negative Affect					
Constant	19.88	.88		p = .001	
Work-Life Interface	-0.62	.10	-.44	p = .001	
					0.20
Presence of Meaning					
Constant	2.89	2.94		p = .327	
Person-Profession Alignment	0.20	0.11	.15	p = .064	
Personal Acceptance	0.48	0.11	.36	p = .001	
Professional Development	0.13	0.09	.11	p = .168	
Achievement	0.17	0.15	.09	p = .254	
Work-Life Interface	0.21	0.11	.14	p = .053	
					0.35

95% confidence intervals

6.2.4 Summary of the associations between orientation to work and life need satisfaction, and wellbeing.

Hypothesis 2a stated that needs are most satisfied when work-life orientation is in balance and was supported by the findings. Hypothesis 2b stated that wellbeing is explained by the satisfaction of needs in work and life and this was partially supported, whereby the dimensions of Personal Acceptance, Work-Life Interface and Professional Development had the greatest positive effects on wellbeing. Hypothesis 2c stated that wellbeing is optimised when there is a balanced work-life orientation and this was supported by the findings.

6.3 The effects of career or life stage on wellbeing, work-life orientation and need satisfaction

The third hypothesis stated that career and life stage has an effect on need satisfaction, work-life orientation and wellbeing. The effects of the variables of role, role tenure, age and gender were considered in relation to the following hypotheses:

H 3a; Holding a promoted post will be negatively associated with need satisfaction, wellbeing and positively associated with orientation to work.

H 3b; Longer tenure in role will be positively associated with need satisfaction, wellbeing and negatively associated with orientation to work.

H 3c; Increasing age will be negatively associated with need satisfaction, wellbeing and orientation to work.

H 3d; Being female will be positively associated with need satisfaction and wellbeing and negatively associated with orientation to work.

Effects of Promotion, Role Tenure, Age and Gender on Work-Life Orientation
Chi square tests considered whether there was any significant difference between reported work-life orientation and different groups of respondents to check for any effects of role, role tenure, age and gender on work-life orientation. There were limitations due to the low number of responses in the balance towards life categories. As a result, the data was grouped together further (Field, 2013) and the five work-life orientation categories were grouped into three groups as 'orientation towards work', 'balance between work and life' and 'orientation towards life'. See appendix 5 for

the number of cases (n), the expected number of cases and the corresponding percentages for each cell in relation to role, tenure, age, working pattern and gender.

Chi square calculations were run for work-life orientation (compressed) and two groups - promoted and non-promoted. One cell did not have the required expected n=5 but this was 16.7 percent of the total count which is considered acceptable (Pallant, 2010). The Pearson Chi Square did not indicate a significant difference between promoted and non-promoted staff, x^2 (2, n=170) = 3.23, p=.20, Cramer's V =.14. It was argued that having experience greater than 2 years in a role would indicate more experience. As a result, Chi square calculations were run for work-life balance (compressed) and two groups - those who were in the role for 2 years or less and those who had been in their role for more than 2 years. One cell did not have the required n=5 but this was 16.7 percent of the total expected count which is considered acceptable (Pallant, 2010). The Pearson Chi Square did not indicate a significant difference between those who had worked for less than 2 years and those who had worked more than 2 years, x^2 (2, n=167)= 3.03, p=.22, Cramer's V =.13.

It was also considered useful to test whether orientation to work and life altered with age. Chi square calculations were run for work-life balance (compressed) and two groups - those who were older than 46 years (chosen to align with the ages of the interview population) and those who were younger. One cell did not have the required expected n=5 but this was 16.7 percent of the total count which is considered acceptable (Pallant, 2010). The Pearson Chi Square did not indicate a significant difference between those who were over 46 and those who were younger, x^2 (2, n=166)= 0.641, p=.726, Cramer's V =.062. Chi square calculations were then run for work-life orientation (compressed) and two groups - full time and part time. Again, one cell did not have the required n=5 but this was 16.7 percent of the total count which is considered acceptable (Pallant, 2010). The Pearson Chi Square did indicate a significant difference between full time and part time staff, x^2 (2, n=169) = 12.41, p=.002, Cramer's V =.271. This suggested a moderate effect between working pattern and reported work-life orientation.

Chi square calculations were run for work-life orientation (compressed) and gender. Two cells did not have the required n=5 which may have caused a loss of power

(Field, 2013). The Pearson Chi Square did indicate a significant difference between gender, x^2 (2, n=170)= 7.78, p=.02, Cramer's V =.214. The Fisher's exact test indicated a similar value (x^2=7.31, p=.02). This suggested a moderate effect between gender and reported work-life orientation. See Appendix 5 for a table which provides a summary of the effects of each grouping. Working pattern and gender were the only groups which showed an effect.

Effects of Promotion, Role Tenure, Age and Gender on Need Satisfaction

For the seven dimensions identified by the principal component analysis, independent t-test calculations were run between promoted and non-promoted staff, by tenure in post (2 years or less in comparison to more than 2 years), those aged above 46 years (the age group of the interview respondents) and those who were younger, and by gender in relation to work and life needs. For promoted and non-promoted staff, there was a small effect size for Person-Profession Alignment (promoted, M = 20.60, SD = 3.17 and non-promoted, M = 19.23, SD = 0.28), t(165) = 2.90, p = .004, two-tailed (eta squared = 0.05). There was also a small effect size for Professional Development (promoted, M = 24.13, SD = 3.64 and non-promoted, M = 22.62, SD = 3.53), t(167) = 2.69, p = .008 (eta squared = 0.04). For Relations in Work there was also a small effect size (promoted, M = 17.10, SD = 1.88 and non-promoted, M = 16.26, SD = 1.75), t(168) = 2.90, p = .004 (eta squared = 0.05). Finally, for Personal Acceptance there was a very small effect size (promoted, M = 30.90, SD = 2.95 and non-promoted, M = 29.96, SD = 3.02), t(166) = 1.98, p = .05 (eta squared = 0.02). This is summarised in Table 14 which includes the t-test, eta squared and mean and standard deviation data for promoted and non-promoted employees. The other dimensions showed no significant differences.

As only role type showed significant differences in the t-tests for need satisfaction, this was the only piece of respondent data used when considering the correlations between need satisfaction and wellbeing. When controlled for role type in the zero-order correlation, there was negligible to no effect on the correlations. Given that there was no effect on the correlations, the effects of gender, age, role type or role tenure were not considered in the multiple regression tests.

Effects of Promotion, Role Tenure, Age and Gender on Wellbeing

The effects of promotion, role tenure, age and gender were considered in relation to the wellbeing scales. Independent t-test calculations were run between promoted and non-promoted staff, those aged above 46 years (the age group of the interview respondents) and those who were younger, by tenure in post (2 years or less in comparison to more than 2 years) and by gender. For promoted and non-promoted staff, there was a small effect size for presence of meaning (promoted, M = 29.77, SD = 3.34 and non-promoted, M = 28.15, SD = 4.33), t(169) = 2.75, p = .007, two-tailed (eta squared = .04). For age, there was a small effect size for negative affect (45 years and less, M = 13.91, SD = 3.76 and 46 years and older, M = 15.12, SD = 3.66), t(167) = -2.11, p = 0.037, two-tailed (eta squared = .03). For gender there was a small effect size for positive affect (male, M = 21.47, SD = 2.10 and female, M = 23.42, SD = 3.49), t(169) = -2.13 , p = 0.035 (eta squared = .03) and presence of meaning (male, M = 26.73, SD = 4.30 and female, M = 29.03, SD = 3.95), t(169) = -2.13, p = 0.034 (eta squared = .03) . There was a moderate effect size for search for meaning (male, 22.20, SD = 5.06 and female, M = 15.03, SD = 7.25), t(169) = 3.74 , p = 0.000 (eta squared = .08).

There were no significant differences for role tenure in relation to wellbeing (2 years or less in comparison to more than 2 years). Table 14 gives an overview of the t-test data for the variables which showed a significant effect and includes the means and standard deviations, along with the t-test values and effect sizes (eta squared). Zero-order correlations run for need satisfaction and wellbeing and role type, age and gender indicated a negligible to no effect. Given the small or no effect sizes, there is no need to control for age, role or role tenure.

Table 14 Tests of Mean Differences (significant effect sizes only)

	t-test value	Eta Squared	Mean	SD	Mean	SD
Wellbeing			**Promoted**		**Non-promoted**	
Presence of Meaning	t(169) = 2.75, p = .007	.04	29.77	3.34	28.15	4.33
			Age <45		**Age >46**	
Negative Affect	t(167) = -2.11, p= .037	.03	13.91	3.81	15.12	3.62
			Male		**Female**	
Positive Affect	t(169) = -2.13 , p=.035	.03	21.47	2.10	23.42	3.49
Presence of Meaning	t(169) = -2.13, p= .034	.03	26.73	4.30	29.03	3.95
Search for Meaning	t(169) = 3.74 , p= .000	.08	22.20	5.06	15.03	7.25
Need Satisfaction			**Promoted**		**Non-promoted**	
Person Profession Alignment	t(165) = 2.90, p = .004	.05	20.59	3.17	19.23	.28
Professional Development	t(167) = 2.69, p = .008	.04	24.13	3.64	22.62	3.53
Relations in Work	t(168) = 2.90, p = .004	.05	17.10	1.88	16.28	1.75
Personal Acceptance	t(166) = 1.98, p = .050	.02	30.90	2.95	29.96	3.02

Summary of the Effects of Promotion, Role Tenure, Age and Gender

In relation to Research Question 3: how do (a) promotion (b) tenure in role (c) age and (d) gender influence work-life orientation, need satisfaction, and wellbeing?, there were four hypotheses tested. These hypothesised an effect of promotion, role

tenure, age and gender on need satisfaction, wellbeing and work-life orientation and need satisfaction. The hypotheses were unsupported except for Hypothesis 3d which was partially supported. The following effects were found:

For Hypothesis 3a, it was anticipated that holding a promoted post would be negatively associated with need satisfaction. The opposite was found, whereby need satisfaction increased for promoted staff. This hypothesis also stated that a promoted post would be negatively associated with wellbeing. The opposite was also found for this statement where promotion was positively associated with wellbeing. Holding a promoted post did not have any effects on work-life orientation. This meant that Hypothesis 3a was unsupported.

For Hypothesis 3b, it was stated that longer tenure in role will be positively associated with need satisfaction, wellbeing and negatively associated with orientation to work. No effects were found from role tenure so this hypothesis was unsupported.

For Hypothesis 3c, increased age was expected to be associated with lower need satisfaction, wellbeing and orientation to work. Increased age was associated with less negative affect but had no other effects. This hypothesis was therefore unsupported.

For Hypothesis 3d, being female was stated to be positively associated with need satisfaction and wellbeing and negatively associated with orientation to work. Women in this study had higher wellbeing than men, as predicted, but also a higher orientation to work than men. There was no effect of gender found on need satisfaction. This hypothesis was therefore partially supported.

6.4 Chapter Summary

This chapter presents the findings from the survey data in order to address Research Questions 2 and 3. While hypothesis 2a was supported with needs most satisfied where there was a balanced work-life orientation, directing orientation to the work domain did not increase the satisfaction of work needs. Hypothesis 2b was partially supported, with certain dimensions (Work-Life Interface, Professional Development and Personal Acceptance) explaining wellbeing. Hypothesis 2c was supported,

showing that a balanced work-life orientation was significantly associated with wellbeing (life satisfaction and affect). For the effects of promotion, role tenure, age and gender, Hypothesis 3a – 3c were unsupported. Hypothesis 3d was partially supported in relation to women having higher wellbeing than men. The findings indicated that a balanced work-life orientation and need satisfaction in the work and life domains may be associated with optimised wellbeing. Teachers may experience mechanisms in the workplace which support or enable their ability to satisfy needs and Chapter 7 considers the two research questions which consider the effects of the main enablers and challenges on need satisfaction in work and life.

Chapter 7
Findings: Enablers and Challenges to Satisfying Needs

7.1 Introduction

The previous chapter indicated which needs may be important to satisfy in work and life to optimise wellbeing. However, the satisfaction of these needs in work and life may be affected by enablers or challenges in those domains. The aim of Chapter 7 is to consider Research Question 4 (what are the most significant enablers and challenges in achieving / maintaining satisfied needs in work?) and Research Question 5 (what are the most significant enablers and challenges in achieving / maintaining satisfied needs in life?). Data from the interviews with teachers, retired teachers and stakeholders is used to consider the enablers and challenges which might aid or prevent the satisfaction of work and life needs. Although the teachers and retired teachers and stakeholders participated in different types of interviews, their accounts were broadly similar. As a result, the data is presented together, although any differences are summarised at the end of each section. An overall summary is then presented.

7.2 Enablers and Challenges to Satisfying Needs

The following findings identify the enablers and challenges which may affect an individual's ability to satisfy needs. The following section considers the main factors which impact on need satisfaction as reported by teachers and retired teachers and stakeholders. As the data from the stakeholder interviews was organised into broadly similar themes to the teacher and retired teacher interviews, it is considered useful to report the findings together. This section considers the following enablers and challenges: supporting others and the support of others, opportunities to transition to and from the life domain, the availability of development in the workplace, working environment and dealing with change in the workplace.

7.2.1 Support of and Supporting Others in Life

The support of and supporting others was mentioned by 10 teachers and retired teachers and 6 stakeholders (16 out of 23 respondents). This was discussed in

relation to the interactions with the workplace. Where orientation was to work, the respondents reported not being able to spend enough time with their families or indicated that their spouses were unhappy with the time they spend on work. The flexibility of the job allowed them to support their families but they also reported having to spend early mornings, evenings and weekends to complete the requirements of the job which could interfere with the family domain. Two teachers and three retired teachers reported a balanced work-life orientation. However, one retired teacher indicated an element of frustration at having to do work outwith the classroom due to it conflicting with her personal life.

> I think you just get a bit fed up at times and get tired and wish you could do other things. You know, you were thinking well I can't go out on Sunday afternoon because I need to do school stuff today, or a Friday night. You couldn't plan a weekend. (Retired Teacher 5)

The flexibility offered by the job to work around other commitments was reported, although this was off-set by not always being able to control the volume of work. The work described was activities such as completing reports or developing resources for the children to use in the classroom.

Life circumstances could influence the impact of work on life. For example, one teacher discussed how she was better able to maintain a balanced orientation because her children were older and there was therefore less of a requirement to provide the same level of support she provided to them when they were younger. She extended her working day on both sides of the formal school day and completed work before and after her time in the classroom. She did not take work home and kept her life activities separate. This same respondent indicated that when she was younger she would have been unable to cope with the demands of both work and life due to her family commitments. Conversely, a retired teacher indicated that she spent more time on work when her children left home, shifting her energy from the life domain to the work domain. However, she also demonstrated that having to support others reduced as her family matured.

Well I suppose latterly school kind of took over. My children were away then so with the time I suppose you did, I don't think you actually did more but you know you made more work. (Retired Teacher 3)

The intensity of working in the classroom could help to support teachers who were supporting others in the life domain. One teacher and one retired teacher discussed having used their jobs as a means of psychological respite from dealing with challenging life events. For example, one respondent indicated that not only did the intensity of teaching buffer any life-work conflict, it could actually be a means of temporary relief from difficult life events.

But as soon as you're in that classroom with the children, you have to give, you know, you have to focus on them so it does make you forget. And it sounds terrible, but you do forget what's going on out, or you can, you can dismiss what's going on outside the school until 3 o'clock in which case that's a different matter. (Teacher 4)

In contrast, another respondent discussed the isolation of the classroom. She found that the isolation of the classroom meant that she could not draw on the support of workplace friendships. Addressing the demands of the job and meeting additional life challenges was challenging, particularly as she did not want to let the children in her class down. A second respondent discussed similar challenges in meeting the demands of work and life and indicated that she worried about not being the best daughter because she had to balance work with visiting her sick parent. There was a difference between the teachers who used the classroom as respite and those who found it difficult to meet the demands of both work and life. The intensity of working in the classroom was a good thing or a bad thing, depending on the strategy which the teacher used.

In addition to supporting others, the respondents also talked about the support they received from others in the life domain. They described the support of their parents who would care for their children on a regular basis or would step in to take care of the children if they were ill. Where parental support was not available, child-minders

were used. For example, one retired teacher described hiring a child-minder to enable her to go back to work.

> So I had a child-minder and then they went to nursery when they were three, you know. And they were kind of young ones, so they went to school when they were four and a bit kind of thing, you know. It wasn't too bad then. (Retired Teacher 2)

The stakeholder accounts also provided evidence of the way in which the work and life domain interacted. Work-life interference was discussed by six stakeholders, who indicated that orientation to work could be detrimental to the life domain and the satisfaction of family needs. For example, two respondents talked about spouses being uncomfortable with the amount of work that the teachers brought home and another two talked about teachers working during their holidays in order to prepare for the term ahead. Supporting a young family and doing the job was seen as a particular challenge, with one respondent questioning how teachers were able to manage it.

> And I'm not even talking about, I don't know how folk manage it with young families or anything like that. I don't know how people do it. But I think the ones who are sensible do manage it well, but I do think it's becoming increasingly difficult to manage it without impinging on your home life. (Stakeholder 11)

Another respondent discussed the psychological interference which the job could cause which meant that teachers were not able to switch off from the job when they went home. There was a conflict between providing for the pupils and providing for family because teachers identified with supporting both.

> I'm me, I'm a mum, I'm a teacher, I'm a daughter, I'm a sister, I'm an auntie, I'm a friend. We have all those roles and every one of them brings delights and every one of them brings nightmares and it's reconciling all of that in your head that you will try your best. And of course people will feel let down and other people will be thankful that

you've actually supported them in a certain way, and that's OK.
(Stakeholder 10)

Another stakeholder described how teachers make psychological deals, whereby if one weekend was spent working, the following would be taken off. Guilt was appeased for head teachers by reading work documents in personal time to ensure that they could be available during school time. Despite this, another stakeholder indicated that some teachers were very effective at managing their home life and work. There was no mention from any interviewees of support from outside the job, in relation to spouses, friends or family.

Both sets of interviews indicated that work could conflict with the family domain. In addition, the teachers and retired teachers also discussed the ways in which supporting others could interfere with work or was relieved by the intensity of the job. They talked about the support they received from others in the life domain which allowed them to better balance the needs of their family with the needs of work.

7.2.2 Ability to Transition To and From Life to Satisfy Needs

The transition from one life stage to another affected individuals' orientation to either work or life and appeared to be stimulated by a desire to enhance a range of needs. All teachers and retired teachers mentioned either transitioning to or from the life domain in their accounts in order to meet needs, although no stakeholders discussed this theme (12 out of 23 respondents). The two main life events which were mentioned by the respondents which related to these transitions were when they returned to work after having children and when they decided to retire.

The first transition was the move back into teaching after having children and the respondents who were returning to the profession each reported a desire to move back into the workplace. Supply work acted as a common entry point back into teaching. The teachers reported a desire for the positive challenges, interactions with others or self-expression that the job offered, which are elements of the three work dimensions outlined in Chapter 5. For example, a teacher talked about enjoying raising her children but that she needed to get back into the workplace to be around other adults.

> [Being at home] was a great time, thoroughly enjoyed it. But I needed to give me that sort of distraction. So I think really, at that point it was a distraction and it was to give me that, social interaction with adults. (Teacher 2)

She talked about positive interactions friends which suggested she was not isolated in the life domain. However, she also suggested that she had other capabilities which were not being expressed when she stated that 'a bit of me wanted to get back to work', despite loving being with her children. She did supply work initially which allowed her to gradually move back to work.

One retired teacher had a different approach in that she started back as a job share on the suggestion of a friend. She had no previous intention to return to teaching, but felt that she was 'beginning to atrophy a bit now' after having been out of teaching. She commented on the interest and enthusiasm she developed when updating her knowledge and learning on re-entering the workplace. She was 'ready for that stimulation and quite prepared to learn'. The return to teaching was a choice for the respondents, not a fait accompli, with only one teacher stating that she taught because she was not trained to do anything else. It appeared that the teachers returned to work because at that stage in their life the opportunities for increased need satisfaction were offered by the workplace.

Retirement was the other main transition in work-life orientation, this time moving towards life. There were reports of increased pressures of the job and reduced levels of vigour. For example, a retired teacher talked about becoming increasingly tired towards the end of her career and indicated that this was due to the increase of expectations which accompanied her latter years in teaching. Despite this, she did not retire early and opted to stay in her role. She indicated that she had good classes and felt that she was too young to retire early.

> Yes I did enjoy it but it got awful hard in the last oh, about ten years. They kept changing things and there was an awful lot of paperwork involved then. (Retired Teacher 3)

In comparison, another retired teacher did retire because she felt she no longer had the energy to do her job. She talked about not being sure if she was able to provide the quality her role demanded of her and that making yet another change in curriculum did not appeal to her.

There were examples of the job structure allowing the retired teachers to phase their retirement. For example, one retired teacher began by job sharing and then returned to do supply work after she retired. She indicated that had she not been offered early retirement, her job sharing was satisfying enough to have remained in her role until she was 60: "Before I stopped, before I retired I had gone down to job sharing and I kind of liked it a bit better then." She went on to say "I mean, I'd have been quite happy to go on with my three days probably until I was 60." However, these options were not always available. For example, another retired teacher indicated that she was not offered early retirement but took it anyway. She talked about wanting autonomy to choose not only when to retire, but also what she wanted to do on a day to day basis.

In latter career stages, the respondents indicated that the domain of life offered more opportunities for development and self-expression. The retired teachers also reported that retirement gave them greater freedom to meet needs which their personal lives were able to satisfy. Travelling was one way in which three retired teachers discussed using their time. Two other retired teachers reported wanting to make more time for their families (particularly grandchildren) and to do volunteer work. The retired teachers were honest about how retirement can sometimes be boring, but did not express any regret for having given up their work.

7.2.3 Availability of Development in the Workplace

The previous section presents findings which suggest that one reason teachers return to work is for the development opportunities which it can offer. This suggested that the availability of development opportunities was important and there was further evidence to support this. All but one teacher and retired teachers discussed receiving or desiring development, and five stakeholders mentioned development (16 out of 23 respondents).

Formal qualifications taken in the early stages of teachers' careers or roles were discussed and could be useful to satisfy needs such as knowledge or mastery. However, CPD opportunities were not always available during the teachers' careers.

> CPD wasn't heard of. We didn't have training courses and CPD to go to. There weren't in-service days in those days. So there was no, you know you went to, once you did your probation you were a teacher. End of story. (Teacher 3)

Some head teachers reported not having any leadership training prior to being promoted as this was not available at the time. Lack of formal leadership training did not appear to prevent success, but respondents indicated that it would have prevented surprises and acted as a buffer to making mistakes. In comparison, formal leadership training (Scottish Qualification for Headship) supported the pursuit of promotion and gave one head teacher the impetus to pursue head teacher roles.

Promotions helped to facilitate on-the-job development and the needs for knowledge and mastery. These could either be permanent promotions or secondments. Four teachers and one retired teacher discussed the benefits that they received from promotions and secondments. Secondments facilitated achievement, knowledge and the reinvigoration of teachers' careers, with three teachers and two retired teachers indicating that they used secondments as stepping stones to promotion or as being useful to gain a broader knowledge of the profession. For example, one teacher reported that she became more aware of the resources and support which were available to teachers centrally. She also learned more about what other schools were doing and indicated that this was a useful benchmark for her school. She indicated that her career had been re-invigorated as a result of the secondment.

> In an ideal world, everybody should have a secondment for a year to let them get out and about and see different places. It should be part of, it should be built in somehow. (Teacher 4)

Another teacher described how a secondment allowed her to get a better understanding of the challenges that her managers were facing and gave her a broader understanding of school-level concerns. A retired teacher also talked about

how her secondment allowed her to understand the transition between primary and secondary better. Promoted posts could also support development needs, although this was limited by the demands of the job preventing teachers from implementing their skills.

Two retired teachers indicated that they would have liked to have moved to another school to gain new challenges without having to take on promotion but were reluctant to go through the interview process in order to do so. Consequently, they reported that their job became harder and that they were tired.

> Because I always felt it was good to move on because you can get kind of stale I think and I always thought it was good to move on and I thought [names school], that would be nice. But at that time they then changed it and you just couldn't ask for a transfer which you could in previous years. You had to go for interview. (Retired Teacher 3)

Moving through various stages within the school was an alternative and this was pursued by various classroom teachers. For example, one retired teacher talked about moving to various stages in the school to keep her teaching fresh. However there were limitations to the extent to which this strategy could support the Professional Development dimension.

The stakeholder respondents also discussed development. Five stakeholders discussed the development which is available to head teachers. Three discussed formal management courses, with one stakeholder suggesting that knowledge from courses required practical learning to complement it. Informal support was reported in relation to peer support and mentoring processes which facilitated development and supported head teachers in their role. For example, one stakeholder discussed the need to support new head teachers as they became familiar with their roles and indicated that they received support from the authority and from their peers.

> I don't think you can just throw somebody in and expect them to get on with it. Although that happened in the past, but I think nowadays….I think you try and build in….and it's building capacity within people so they're able to cope with whatever they're given to do. (Stakeholder 3)

For availability of development, the teachers and retired teachers discussed the supportive CPD and leadership development and secondment processes, although some respondents also discussed times in their career when the CPD and leadership development processes were limited. They also discussed the limitations in being able to transfer to posts in other schools in order to reinvigorate their careers. In comparison the stakeholders focused more on the development processes available to head teachers.

7.2.4 Support and Expectations of Others at Work

Support at work was important. However, teachers were also subjected to expectations from others that they interacted with as part of their job. All of the teachers and retired teachers and nine stakeholders (21 out of 23 respondents) mentioned the support or expectations of others at work.

Colleague support helped to facilitate Professional Development and respondents reported that it could involve watching others do their work (often at the beginning of a teacher's career) or being given advice from colleagues. Support from managers was also offered to teachers. Both retired and working teachers talked about how head teachers ensured that their staff felt secure and had the autonomy to make changes in their day to day work. They gave their staff opportunities to display their skills, visibly supported initiatives which the teacher was trying to implement or suggested that they pursue promotions or qualifications, facilitating the need for achievement.

> And, it was actually the head teacher, [names head teacher] it is, said you should be looking at, you should be looking at, promotion. And I was quite, you know, I really didn't, I hadn't, I really hadn't thought about it, I never looked at the, any of the adverts or anything like that. (Retired Teacher 6)

In contrast to this, one retired teacher discussed how a head teacher at the beginning of her career tore up her application to work abroad. She indicated mild regret at not having developed more, but did not appear to feel that this had a major impact on her.

There were also reports that the expectations of and interactions with parents also influenced how the teachers did their job. For example, one teacher viewed both herself and parents as being part of a shared community. She indicated the importance of her relationship with parents but stated that this could also lead to an increase in her workload. The partnership with parents was valued by the respondents, but as with any partnership, there were challenges which arose. However, parents also provided an invaluable means of support, working together with the teachers to provide the best education for pupils, suggesting that they meet a need for relationships and for developing others. For example, one retired teacher described her relationship with parents, whereby they would support each other in obtaining limited resources to support the school:

> And I mean I was very, I had a huge amount to do with the parents. A lot of work with the parents as well and bring in the parents on board as well. You know I had certain parents who would, you know, get on there and give it big licks. But it didn't always make a difference but sometimes it did. (Retired Teacher 7)

Four stakeholders discussed the desire of teachers to do a good job and explained this could be one reason for their long working hours. For example, one respondent provided examples of teachers that she knew who worked very long hours but that this affected their health. She indicated that they were very good teachers but that this was because they spent so much time doing the job. Although some stakeholders indicated that it was difficult to do the job in a 35 hour week, it was unclear whether working long hours was driven by a need to develop others, or to be perceived as a 'good' teacher by others.

> But I think most people are committed and where you go in and out of schools, when you see the commitment from people: coming out for Saturday events, after school clubs, doing projects and all sorts of things, even down to personnel within the school, the ancillary staff that would contribute to all of those things too. (Stakeholder 9)

Workload (usually mentioned in the form of paperwork and external expectations) was viewed as being a challenge to teachers. Six stakeholders indicated that workload could be a barrier to teaching in the classroom or leading the school in an effective way. They highlighted the view that paperwork could be perceived as not being a core element of the job and as taking time away from being a teacher. A respondent indicated that reducing workload would have a positive impact on teachers and suggested the need to "make a change to the practice or the policies that don't impact so badly on teachers that they feel they're just drowning in the paperwork."

Dealing with other groups of people could be a challenge, as four stakeholders discussed. This could involve not getting enough support from other agencies or the local authority which could add to teachers' and head teachers' workload. However, partnerships with others could also provide benefits in terms of meeting the development needs of pupils. Five stakeholders also mentioned the challenges of interacting with parents. While they talked about the support that parents offer and the importance of having them involved in their children's education, this could also cause additional challenges. However, there was a suggestion that by improving communication and working in partnership with parents, then these challenges could be mitigated and that parents should offer a challenging voice.

> But on the whole I would say yes, parents are supportive but they can
> also be challenging. That said, though, it's no bad thing. Parents should
> be challenging- It should be challenging for the school. (Stakeholder 6)

Managerial support was discussed by six of the respondents and this referred to either senior management teams in the schools or local authority support. Another two respondents mentioned collegiate support and indicated that this could help to prevent feelings of isolation that teachers might experience. In most cases, the partnerships appeared to benefit teachers and head teachers through the inter-personal support that they offered, suggesting that they help to meet relationship needs.

Supportive partnerships with managers, colleagues and parents were mentioned by both groups of interviewees. In addition, the stakeholders discussed the support of

other agencies but highlighted the workload increases that this could cause. They also indicated the expectations of others but also the pressure which teachers placed on themselves. Both groups discussed working with parents and the support and challenges this can bring.

7.2.5 Working Environment

Teachers reported varying experiences from working in schools in areas which are socially disadvantaged. Seven teachers and retired teachers and five stakeholders (12 out of 23 respondents) discussed their working environment. Four retired teachers and three teachers mentioned working in schools which were situated in disadvantaged areas. Out of these, three retired teachers and one teacher described leaving the schools because they were very challenging, describing an impact on satisfying health needs. However, more than one respondent indicated that it was a worthwhile experience because of the learning gained and suggests that working in challenging schools can satisfy the dimension of Professional Development. One retired teacher talked about the pressures from working in challenging schools. She mentioned that it was a rewarding experience, but also indicated that there was a greater workload which came from the necessary interaction with other agencies.

> Again there's a lot of expectations that it'll happen at school level. People will want to do, make all these decisions about children and families and one thing and another and expect the schools to carry it out and not always their own agencies. (Retired Teacher 6)

In comparison, three respondents worked in areas of deprivation and either chose to work in a challenging school because it reflected their values and preferences (Person-Profession Alignment dimension) or did not mention any adverse effects from working in a deprived area, suggesting that the impact on health needs was person specific.

The area in which the school was based was also mentioned by five stakeholders. They mentioned this in relation to the additional pressures that this put on the teachers working in these areas where children were not always keen to learn. They also spoke about the external measures of school success. For example, one stakeholder discussed the differences that staff could make despite working in areas

where the children had less opportunities, indicating that the teachers who worked in areas of deprivation are 'performing miracles with kids'. The stakeholders indicated that comparisons were made on school achievement which was not necessarily adjusted to take into account the school circumstances.

> I mean you could be in a really quite weak area, an area of deprivation, or whatever, and if you even get fifty per cent of kids to do it could be a huge achievement; and that's amazing because these kids might have come up from nothing. (Stakeholder 11)

The stakeholders were more likely to discuss the challenges of working in schools in areas of deprivation. In comparison, some teachers and retired teachers did not report feeling these pressures. However, others confirmed that there were additional expectations which came from working in challenging schools, but also reported that they valued the development which came from working there.

7.2.6 Dealing with Change at Work

Despite some teachers reporting actively seeking change by transferring to other schools, policy or curriculum changes were not reported as positively. All retired teachers and three teachers reported negative changes to teaching and five stakeholders mentioned having to deal with change (15 out of 23 respondents). The nature of the reported changes (more paperwork, more building resources) could be considered administrative rather than providing opportunities for professional development. One retired teacher indicated that there would be a lot of work to get ready for the change in curriculum but that this was in relation to increased planning and building new resources.

> But it becomes, as I say, it can become quite a lot and just general preparation- and the new curriculum because it's active, its ok saying a new active curriculum but all these resources have to be made and they're not bought in. The majority are made by staff. (Retired Teacher 5)

A second retired teacher indicated that she could not go through another change to the curriculum. In comparison, the working teachers and head teachers either did not

mention the changes to the curriculum or did so in a positive way. There was no indication that they viewed the changes as having a negative impact.

The increasing intensity of the role of both teacher and head teacher was also described by the interviewees. Three teachers and five retired teachers indicated that changes to the profession meant that the expectations on both teachers and head teachers have changed. The changes were in relation to discipline, increased paperwork and planning, increased development of resources and increased expectations from parents and the community. These changes were reported to have an effect on both the interference the job has on the life domain, but also in relation to explaining a reduction in vigour and, in some cases, the decision to retire.

The introduction of *Curriculum for Excellence* was also discussed by stakeholders. Three stakeholders mentioned the requirement to deal with the change that the new curriculum brought. The requirement to develop resources to teach the new curriculum increased workload which put additional pressure onto the teachers, although it was acknowledged that some teachers were already familiar with this style of teaching.

> I think there's a lot of tension around change. So if you have any change, and a new curriculum is a major change, then I think there would be tension around it and I think that's just a fact. Having said that, I think good teachers are doing a lot of Curriculum for Excellence anyway and always have. So it's not new for them. (Stakeholder 1)

Behaviour of the children was indicated as having become more difficult over time and may have prevented relationship and developing other needs from being satisfied. Five stakeholders mentioned the challenge of poor behaviour and indicated that the unpredictable nature of children's behaviour meant that it could not be anticipated. The stakeholders also mentioned the importance of whole-school discipline and of the head teacher and management team's ability to implement behavioural strategies and controls. The reasons why the children exhibit challenging behaviour was acknowledged in relation to emotional, social or other additional support which they might require. However, behaviour was still viewed as a particularly challenging element of the teacher's job.

> The other aspect, I think, which can contribute to teachers feeling under
> pressure, perhaps stressed and unhappy, and many teachers I think would
> raise this, is the- what is perceived to be an increase in challenging
> behaviour from children. (Stakeholder 6)

In summary, the retired teachers were more likely to mention the negative effects of the change in curriculum, with working teachers either mentioning the changes positively or not at all. However, some working teachers did acknowledge the increasing intensity of the job. Three stakeholders also mentioned the effects of the change in curriculum and in addition the stakeholders focused on children's behaviour.

7.2.7 Summary of Enablers and Challenges to Need Satisfaction

The data from the teacher and retired teacher interviews indicated that there were a number of key enablers and challenges to satisfying needs. In life, having to support others (such as raising children or dealing with the illness of significant others) could both satisfy and challenge need satisfaction, while the support of others could help individuals cope with the pressures of the work domain. The stakeholder interviews indicated that supporting others in the life domain could be challenging due to interference from the job. Opportunities for need satisfaction were not consistently available in either the work or life domain and individuals appeared to adjust their work-life orientation to spend more time in the domain which best met their needs. Supportive colleagues and managers in the workplace and parents in the life domain were a key source of support, while the quantity of work and increasing changes to paperwork, behaviour and the need to develop curricular resources were challenges. The socio-economic context either prevented the satisfaction of needs such as health for some, or could satisfy the needs as the context was aligned to the individual's values. This appeared to depend on the individual. Again, dealing with change appeared to depend on the individual, but where change became challenging could encourage teachers to take retirement.

The working teachers and retired teachers showed little differences in how they dealt with challenging life events or in the effectiveness of the work domain to satisfy development needs. Challenges such as increased paperwork and behaviour

problems were discussed by all groups of interviewees. However, the retired teachers indicated a desire to direct their energy back to the life domain (and therefore retire) in order to better satisfy vigour or family needs. Both teachers and retired teachers discussed the support they received from colleagues and managers and the partnerships they had with parents and individuals from the life domain. The stakeholders reported that working in a challenging school could place additional pressures on teachers, as could changes to the way in which classes were taught or in the behaviour of pupils. Expectations of others were reported to impact on workload by both groups of interviewees. However, both groups also acknowledged that some of these expectations could both enhance and support teachers to do the best for their pupils. Working teachers were less likely to view the changes to the curriculum as being negative, although there was agreement between the working and retired teachers that other changes such as discipline and paperwork could be a challenge. The stakeholders discussed similar change themes but were more likely to report the curriculum changes as being challenging.

Overall, the interview respondents reported that the physical and psychological strains of the workplace could lead to work-life spill-over, with work interfering with life. The retired and working teachers identified additional family support which was available to them to combat these strains and also indicated that they had greater control over where and when to direct their energy because the job was flexible. Commitments to supporting others in life could reduce this flexibility, however the teacher and retired teacher respondents also indicated that the life context was useful to satisfy needs at certain stages of life. In comparison, the stakeholders focused on the desire of teachers to do a good job and the commitment that the job engendered. This encouraged energy to be directed towards the work domain, even though it could reduce need satisfaction of the family and health needs. What was unclear was whether teachers strove to do a good job because they wanted to or because of the expectations of others.

7.3 Chapter Summary

There is evidence to show that there are key challenges and enablers which prevent or support need satisfaction. The findings showed that the most significant enablers

for need satisfaction in work were the availability of development at work, the working environment and being able to deal with change in the workplace. The most significant challenges in work were expectations of others, working environment and dealing with change. The support of others in the workplace could mitigate the challenges of the work domain and the availability of development in the workplace may provide teachers with greater energy and confidence to do their job. Working in a challenging environment and dealing with changes to the curriculum appeared to impact different individuals in different ways, with some viewing these challenges as difficult and others choosing to work in those environments.

The most significant enablers for need satisfaction in life were the support of others, opportunities to support others, and opportunities to transition to and from the life domain. The most significant challenges in life were the support of others but also having to support others. There was also evidence to show that enablers and challenges can directly affect work-life orientation which in turn affects need satisfaction. The need to care for both their own children and those of others can make it difficult to maintain a balanced work-life orientation, but the intensity of the classroom can also act as respite from challenging life situations. Teachers may adjust their orientations to either domain, depending on which is more likely to satisfy their needs.

The following chapter presents a discussion of the findings from Chapters 5, 6 and 7. It revisits the model proposed in Chapter 2 and shows how the findings support this conceptualisation. It considers the implications for teachers, and then broadens the discussion to provide evidence for the applicability of these findings to employees outwith teaching.

Chapter 8
Discussion

8.1 Introduction

Chapters 5, 6 and 7 presented the findings to the research questions which were set out in the literature review. This chapter discusses these findings in relation to the proposed model which this study investigated, indicating support for and changes to the model as a result. A discussion is then provided to suggest that the model is applicable to a broader set of employees, in addition to teachers. A consideration of alternative antecedents is outlined, along with arguments for why these were not appropriate to the model in this study.

8.2 Evidence for the Proposed Model of Need Satisfaction in Work and Life and Wellbeing

In order to improve wellbeing in the face of work and life challenges, it is useful for employees to be able to satisfy their needs. It is generally accepted that individuals seek to fulfil a set of basic needs. However, existing need frameworks have been limited by their consideration of either a small number of psychological needs (Ryan and Deci, 2000) or by their lack of empirical support (Finnis, 2011; Maslow, 1954/1987). In addition, given the discourse around the importance of work-life interactions (Masuda and Sortheix, 2011; Sheldon et al, 2010), particularly in relation to need satisfaction across domains (Matuska and Christiensen, 2008), it was hypothesised that a balance of needs across domains would be associated with greater levels of wellbeing.

The model in Figure 8 was developed by incorporating the research findings from the model proposed in Chapter 2. This model explains how need satisfaction in work and life is associated with wellbeing. Needs were taken from three separate frameworks (Finnis, 2011; Ryan and Deci, 2000; Maslow, 1954/1987) and it was proposed that in both work and life domains, needs that must be satisfied for wellbeing are: 1) knowledge, 2) harmonious relationships, 3) excellence and mastery, 4) health and vigour, 5) safety, 6) family, 7) inner peace, 8) belief system, 9) status, 10) autonomy (Hypothesis 1a). The interview findings found evidence for these needs and indicated

that two others, developing others and achievement, should be included. Hypothesis 1b then proposed that the pattern of need satisfaction in work and life would conform to a ten factor model which corresponded to the needs outlined above. However, this resulted in seven identified dimensions: Personal Acceptance, Personal Development (life dimensions), Person-Profession Alignment, Professional Development, Relations in Work (work dimensions), Achievement and Work-Life Interface (dimensions which spanned work and life) which were identified as important groups of need variables to satisfy.

The model indicates that a balanced work-life orientation facilitates the satisfaction of needs in work and life which in turn leads to wellbeing. The findings show that a balanced work-life orientation was associated with both optimum need satisfaction and optimum wellbeing (Hypotheses 2a and 2b). This was despite limited evidence being found for an unbalanced orientation resulting in greater satisfaction of needs in either the life or work domain. Certain dimensions were also shown to explain wellbeing (Personal Acceptance, Work-Life Interface and Professional Development) (Hypothesis 2c).

The effects of life and career stage on need satisfaction was considered (Hypotheses 3a – 3d). Need satisfaction increased for promoted staff and promotion was positively associated with wellbeing and did not have any effects on work-life orientation. Increased age was associated with less negative affect. Women in this study had higher wellbeing than men, as predicted. However, women also had a higher orientation to work than men although there was no effect of gender on need satisfaction. No effects were found from role tenure.

The findings also showed that enablers and challenges may affect the ability to satisfy needs (Research Questions 4 and 5). The most significant enablers for need satisfaction in work were the availability of development at work, the working environment and being able to deal with change in the workplace. The most significant challenges in achieving / maintaining satisfied work needs were expectations of others, working environment and dealing with change. The most significant enablers for need satisfaction in life were the support of others, opportunities to support others, and opportunities to transition to and from the life

domain. The most significant challenges in achieving / maintaining life needs were the support of others but also having to support others. In addition to impacting on the needs which were satisfied, there was also evidence to show that enablers and challenges can directly affect work-life orientation which in turn affects need satisfaction.
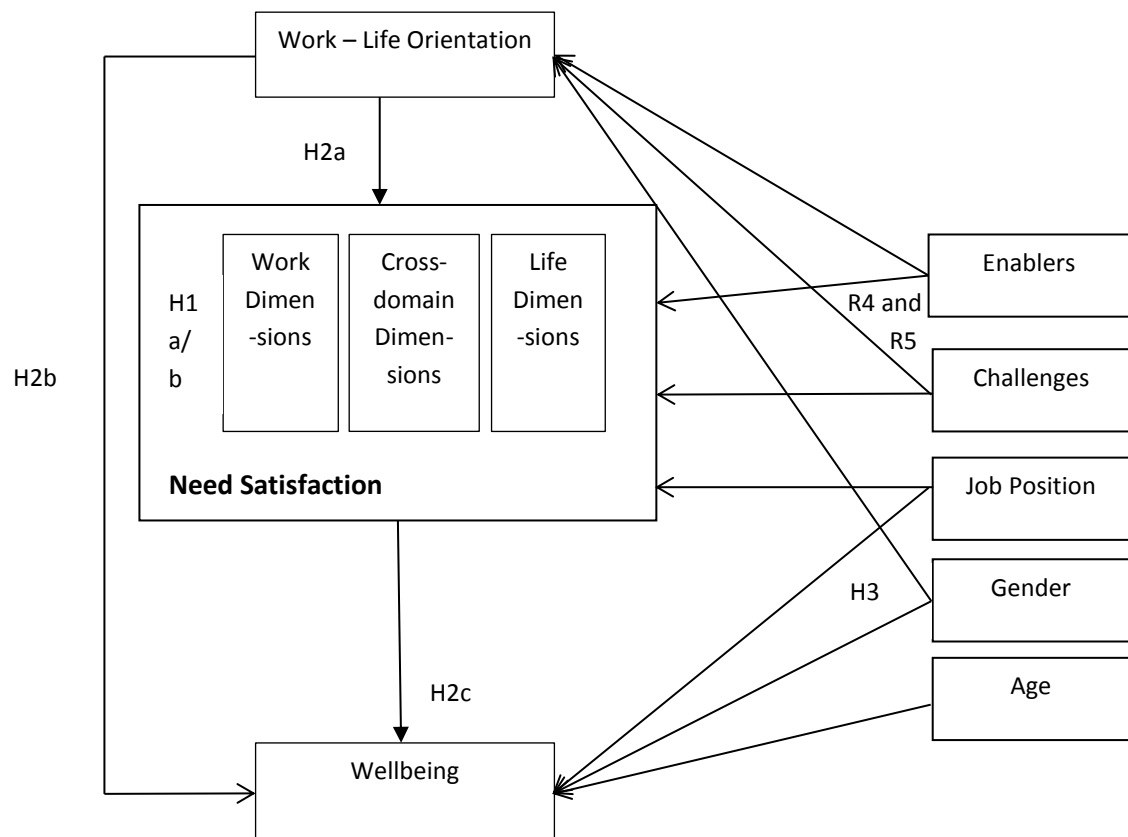
Figure 8 Adjusted model of work-life need satisfaction and wellbeing.

By better understanding how needs are satisfied in each domain, this study can help individuals make decisions as to how they wish to satisfy needs in work and life and the likely effects this may have on their wellbeing. It also assists policy makers and managers in facilitating adaptive approaches through their employee wellbeing processes. Section 8.3 discusses this model in relation to teachers.

8.3 Discussion of the Revised Model

8.3.1 RQ 1: What needs must be satisfied in work and life domains for wellbeing?

Need theories are either limited in their scope (e.g. Ryan and Deci, 2000) or have limited empirical support (e.g. Finnis, 2011; Maslow, 1954/1987), meaning that there is no clear understanding of the full range of needs which should be satisfied. Debates in the field of positive psychology suggest that an Aristotelian concept of a fulfilled life indicates the needs which are likely to result in wellbeing (Ryan and Huta, 2009; Deci and Ryan, 2008; Ryan et al., 2008). The interview findings provided support for each of the ten needs identified in the literature (Finnis, 2011; Ryan and Deci, 2000; Maslow, 1968/1999), along with two additional needs, developing others and achievement (Hypothesis 1a). The importance attached to each of the 12 needs was examined in the survey (Chapter 5, Section 5.3.1) and indicated that most needs (with the exception of status and safety) were important. Seven dimensions in work and life containing groups of need variables were then established (Hypothesis 1b).

The following section will discuss the needs which did not emerge as being important, as well as the two additional needs which emerged from the interviews. This is then followed by a discussion of the seven dimensions which emerged from the principal component analysis.

Importance of Needs: Addition of Achievement and Developing Others

Two needs not initially highlighted by the need satisfaction literature (achievement and developing others) emerged from the interview findings and were also tested in the survey scale. In relation to the need for achievement, teachers will attempt to be better than others (Nitsche et al, 2013) and use this as a benchmark for assessing the extent to which they exemplify a 'proper' teacher (Keltchermans, 2011). The interview findings provided examples that promotion can be considered an indicator of success, despite the importance attached to being a good classroom teacher. Examples of comparisons made during collegiate work and the process of inspections also appear to provide clear benchmarks in terms of doing comparable work or having set standards to assess one's self against.

The interview findings distinguished achievement as being different from status. The survey findings also indicated that status was considered as being less important achievement, again suggesting that these are considered to be two separate needs. The interview findings indicated that being given respect and appreciation by others was important to teachers. In addition, the perceptions of others (which is an aspect of status) is considered to be a concern for teachers (Kelchtermans, 2011; 1996; Nias, 1989). It is possible that social desirability (Crowne and Marlowe, 1960) may have been a factor in status being reported as relatively unimportant. However, Scottish teachers tend to be accorded high status (Ozga, 2005) and while secondary teachers have to deal with differing statuses of their subjects, primary teachers do not have these concerns (Day et al, 2006). This may mean that this need is therefore not as important compared to other needs. The reasons for this low score cannot be definitely shown in this study, but the findings suggest that status and achievement are two different needs.

In relation to developing others, the interview findings presented accounts of teachers who would forgo promotion and give up their own time to develop the children they teach, suggesting a strong motivation to develop others. This is consistent with the teaching literature which suggests that developing children is important to teachers (e.g. Bullough and Hall-Kenyon, 2012; Day et al, 2005). Teachers will meet the needs of pupils, before their own (Nias, 1999) and while the respondents in this study did not report as strong a level of sacrifice, the altruistic qualities of teaching (Kennedy and Doherty, 2012) were emphasised. In addition, some head teachers in the study discussed their lack of direct contact with educating children as a downside of promotion. Similar accounts could be seen when teachers discussed raising their own children, suggesting that the treatment of their own children and those they teach were not dissimilar. The teachers' desire to develop others may not be restricted to the workplace, but may be an aspect of their overall identity which spans multiple domains. In summary, the findings showed support for the inclusion of achievement and developing others as additions to need framework.

Seven Dimensions of Need Satisfaction
Hypothesis 1b stated that the pattern of need satisfaction in work and life will conform to a ten factor model reflecting the 10 proposed needs. However, principal

component analysis identified only seven dimensions: Personal Acceptance, Personal Development, Person-Profession Alignment, Professional Development, Relations in Work, Achievement and Work-Life Interface. These dimensions did not correspond with the 12 needs which had been previously identified but indicated alternative groupings. Each dimension contains a set of statements which were developed using the 12 basic needs and together comprised a set of seven scales which made up a Work-Life Need Satisfaction Instrument. They are argued to be the main groups of need variables which an individual seeks to satisfy in work and life for wellbeing. Five dimensions contain variables which are appropriate to either work or life. Two span both domains. This section discusses the key findings from the principal component analysis (See Chapter 5, Section 5.3.2).

The first part of this section considers dimensions in the life domain in relation to the general literature, as it is argued that individuals are likely to experience life needs, regardless of whether they work in the teaching profession or not. The work dimensions and those which span work and life are then considered specifically in relation to the teaching literature. These dimensions may be more relevant to the particular profession being studied because they include work need variables.

Need satisfaction in the Life Domain

Two dimensions were identified within the life domain. These were Personal Acceptance (the need for authentic expression in relation to self and others) and Personal Development (the need to develop in the life domain). These dimensions are discussed in relation to the general need literature as it is argued that the life context is similar for all individuals, regardless of their occupation.

For Personal Acceptance, given that need satisfaction theories split the needs of relationships and inner peace (Finns, 2011; Ryan and Deci, 2000; Maslow, 1954/1987) it was expected that relationships with others and being true to one's self would appear in separate dimensions. However, this was not the case and the high internal validity ($\alpha = .839$) suggested that these variables were conceptually related. This is inconsistent with Self-Determination Theory which views self-acceptance goals (Kasser and Ryan, 1996; Kasser and Ryan, 1993) as separate from relationship needs. Sheldon et al (2001) also show that relatedness loads to a separate factor from

self-esteem needs. It is possible that the difference in this thesis may be a result of the subtle differences between inner peace (this study) and self-esteem needs (Sheldon et al's (2001) study). The survey developed for this study considered alignment with decisions and behaviours (inner peace), rather than satisfaction with self (self-esteem). Being able to express values may meet inner peace needs and increases an individual's authenticity, but is also associated with building better relationships.

Self-acceptance and personal relationships can be considered to be conceptually similar, possibly as a result of being better able to build relationships with others when one is authentic and consistent and has a strong sense of self. This view is shared by Finnis (2011) who acknowledges that these needs are connected and that relationships are both separate but also outcomes of being authentic. In addition, Maslow (1954/1987) also alludes to being 'as we really are' when in good relationships, again suggesting an association between the two needs.

This dimension also included needs of respect and appreciation which are more in line with the Maslovian need for status (Maslow, 1954/1987) and are not generally included in need theories due to their extrinsic focus. However, Sheldon et al (2004) indicate that some extrinsic goals can be important. Taken too far, a desire for approval may result in extrinsic goals which may not be conducive to wellbeing. For example, the pursuit of fame has been found to lead to lower wellbeing (Kasser and Ryan, 1996). However, when used as a measure of the strength of social relationships, the findings suggest that appreciation and respect of others may help to show how strong the relationships with others are.

Personal Development considers the mastery which individuals are able to achieve in their personal lives, both in general and through leisure. This dimension captures both the importance of development (Kasser and Ryan, 1996) and the intrinsic nature of leisure activities (Snir and Harpaz, 2002). It also indicates the importance of play in developing mastery (Finnis, 2011). Energy in life outside work also appears to be associated with personal growth and may be indicative of needing vitality to be the best one can (Finnis, 2011).

Need satisfaction in the Work Domain

The principal component analysis identified three dimensions of needs in work: Person-Profession Alignment (the need to gain meaning and express self in work), Professional Development (the need to develop in work) and Relations in Work (the need to interact with and support others in work). This section discusses each of the work dimensions in relation to the teaching literature.

For Person-Profession Alignment, the combination of authentic behaviours and meaning is supported by the teaching literature which argues that a teacher's identity and sense of calling are connected (Bullough and Hall-Kenyon, 2011). This dimension also reinforces the importance of teachers being in control of their choices (Keltchermans, 2005). The interrelationships between being true to one's self, being in control of choices and gaining meaning from the job may help to explain why teachers can develop a sense of calling over time (Bullough and Hall-Kenyon, 2011; Richardson and Watt, 2006) and reinforces the importance of teachers having high levels of autonomy. The dimension is notable in that the focus is on the needs of the teacher, rather than capturing a desire to provide service to others which is identified in the calling literature (Bullough and Hall-Kenyon, 2012). Although some interviewees in this study talked about the importance of altruism in relation to their job, the survey findings suggest that the notion of a calling for teachers may be more about expressing one's identity, rather than providing service to others.

These findings are more in line with Higgins' (2005) conception of a calling which focuses on the sense of purpose which a teacher gains from doing the job and Nias's (1999) arguments that teacher values are the basis of their sense of vocation. The teaching literature considers the importance of teachers realising their values in the workplace (e.g. Kelchtermans, 2005; Day, 2002; Woods and Jeffrey, 2002) and by making choices which are in line with personal values, teachers may facilitate a sense of calling. Sacrificing their own needs for those of others (Lobene and Meade, 2013; Estola, et al, 2003) may not be the best approach to this. Given the associations between a calling, wellbeing (Elangovan et al, 2010) and commitment to the job (Bullough and Hall-Kenyon, 2012), staying true to personal values and authentic behaviours may have further benefits which arise as a consequence of fostering a sense of calling.

The Relations in Work dimension includes the need to be appreciated and have relationships with others alongside the need to provide for others by developing them and meeting their needs. It suggests the teachers' desire to both give and take in this area. The importance of relationships which teachers develop with the children they teach is well documented (Klassen et al, 2012; Day et al, 2006; Hargreaves, 2000; Keltchermans, 1993). These relationships with pupils may be developed because of a desire to care for others (O'Connor, 2008; Day et al, 2005; Sutton and Wheatley, 2003), stemming from a sense of responsibility to the children they teach (Bullough and Hall-Kenyon, 2012). This captures the service orientated aspect which is normally included in definitions of a calling. However, caring and providing for others appears to be associated with building relationships with others, rather than having a calling at work. While meeting the needs of others may be important, there is also a desire for appreciation and for positive relationships with others. Supportive relationships and acknowledgement from peers and those in authority are important to teachers (Gu and Day, 2013) and the desire to foster relationships in order to develop and give to others must be balanced with the need for reciprocity that relationships offer (Le Cornu, 2013).

It is unsurprising that Professional Development emerged as a dimension, given the focus on continual professional development in teaching (Donaldson, 2010; Day et al., 2006b). This dimension also indicates that employees seek energy and a safe environment in which to learn. The need to gain energy from the job supports the argument that engagement may come from developing on the job (Hakanen, Bakker and Schaufeli, 2006). A safe environment for learning was mentioned in the interviews and the inclusion of a safety variable in this dimension may reflect the focus on building these safe learning environments (e.g. Education Scotland, 2010a; Education Scotland, n.d). Teachers may want to know that they are able to make mistakes as they develop new skills.

Inter-domain Need satisfaction
Two dimensions were identified which spanned both life and work domains. These were Achievement (need to achieve) and Work-Life Interface (need for life to be free

of interference from work). This section discusses each of the inter-domain dimensions in relation to the teaching literature.

Achievement considers individuals' performance in relation to others and in terms of the goals they set. This dimension contained each of the variables predicted to be associated with Achievement and provided further support that achievement is conceptually separate from status, despite being grouped into 'esteem' in Maslow's (1954/1987) need hierarchy.

The variables included in the Work-Life Interface dimension consider the need to protect the effects which work can have on life and to avoid the adverse psychological and physical effects of work. Work-life conflict can be an issue for teachers (Cinamon and Rich, 2005b) and teachers have to deal with limited resources, particularly in terms of having time to get all activities done (Ballet et al, 2006; Nias, 1999). It has been argued that engagement can buffer the effects of high workloads (Timms et al., 2012). However, teachers can also feel 'an obligation' to their work (Nias, 1999: 226) which can be detrimental to their own requirements. This dimension indicates the importance of switching off from work and ensuring that needs in work and life can both be addressed.

8.3.2 RQ 2: What orientation to work and life leads to optimum levels of need satisfaction?

The model outlined in Chapter 2 predicts that a balanced work-life orientation is likely to enable need satisfaction in both work and life. The hypothesis (2a) was that individuals with a balanced orientation would direct energy to both the work and life domains (Keeney et al, 2013; Friedman and Greenhaus, 2000; Staples and Higgins, 1998) enabling the satisfaction of needs in each domain. Both domains have the potential to satisfy needs (e.g. Van den Broeck et al, 2010; Deci and Ryan, 2012) and where individuals direct energy equally to both, needs in both domains may be satisfied. Satisfactions of the seven dimensions were compared against the categories of work-life orientation in Chapter 6. As expected, the findings indicated that optimum need satisfaction occurred where orientation was balanced to both work and life (see Figure 6, Chapter 6). However, directing energy to only one domain did not

mean that the dimensions in that domain were more satisfied. These findings are discussed in the following section.

It was expected that when more energy was directed at the work domain, the work dimensions would be more satisfied in that domain. Studies on need satisfaction in the work domain show a clear relationship between need satisfaction and engagement in that domain (e.g. Van den Broeck et al, 2010). The intrinsic motivation experienced when satisfying needs in the life domain (Deci and Ryan, 2012) also points to need satisfaction being associated with higher energy being directed to life. However, the seven dimensions did not follow this pattern when work-life orientation was not balanced (see Figure 6, Chapter 6).

The teaching literature suggests that teachers may be working in an increasingly intensified profession (Hargreaves, 1994) and the long hours that teachers are expected to work (Bell, 2011; MacBeath et al., 2009) may mean that those who reported an orientation to work directed their energies to this domain because of the requirements of the job, rather than a desire to satisfy more work needs. Teachers' time may have been taken up with working on other activities which did not necessarily satisfy workplace needs. An increase in workplace demands has been shown to make teachers more prone to burnout (Hakanen et al, 2006) and high work-load can cause teachers to become disengaged (Timms et al, 2012). Despite this, teachers resist removing themselves from these circumstances (through absence) because of the negative impact this could have on their pupils (Nias, 1999).

Person-Profession Alignment remained static when orientation was to work, suggesting that teachers managed to maintain a sense of meaning and self-identity at work. However, despite the importance of teacher identities to their motivation (Day, 2002), they may not be able to increase satisfaction of this dimension due to work pressures. Woods and Jeffrey (2002) suggest that external expectations can affect teachers' identities, and these findings may be indicative of attempts to sustain identity and meaning in the face of those expectations. The teachers in this study also managed to maintain the dimension of Relationships with Others, suggesting that the development of pupils was not compromised. This confirmed the importance of relationships with other teachers (Macdonald, 2004) and children (Day et al., 2006b)

although it was surprising that the dimension scores did not increase with orientation to work. In comparison, Professional Development did reduce which indicated that workplace demands may be detrimental to skill development.

In comparison, Person-Profession Alignment was not sustained when orientation was towards life. Professional identity may be important, but more so for teachers who orientate to work. The fragmentation of personal and professional identities can result in reduced commitment to the job (Bullough and Hall-Kenyon, 2012; Woods and Jeffrey, 2002) and Huberman (1993) indicates that teachers may pursue interests in other domains of life when they are dissatisfied with work. The findings of this study suggest that where teachers' needs for professional identities and sense of meaning are not satisfied, they may direct their energy away from work. This is similar to Timms et al's (2012: 339) group of teachers who 'were not exhausted but nor were they absorbed in their work' and who were more likely to be engaged in life outside of work. Studies by Berg et al. (2010) also indicate that where teachers are not able to satisfy their sense of calling in the workplace, they will look elsewhere to do so and this appeared to be supported by the findings.

However, Relations in Work needs did not decrease as orientation moved towards life and this suggested that individuals continued to foster good relations and develop others despite a focus on life. This suggests that when teachers are more engaged by the life domain, they remain committed to developing the pupils they teach. Satisfying Relations in Work when orientation is to life may reflect the extent to which teachers care for those they teach (Bullough and Hall-Kenyon, 2012; Day et al., 2005; Sutton and Wheatley, 2003), and this may mean that these needs remain salient even when orientation is to life. Even where teachers restrict the energy they direct to work, they may ensure that the development of their pupils is not compromised. However, this study did not support Cinamon and Rich's (2005b) findings which suggest that relationship needs may reduce levels of work-life conflict. The findings showed that teachers' work still conflicted with their life and satisfaction of the Work-Life Interface dimension did not increase when orientation was to life. This may be as a result of the continued focus on meeting the needs of their pupils.

Teachers may have continued to satisfy Personal Acceptance when orientation was to work because of the importance they attached to maintaining their identity and sustaining personal relationships. Day (2002) indicates the importance of considering personal identities in addition to professional ones and this pattern of need satisfaction may be indicative of an attempt to balance personal identity with the demands of the workplace (Day et al, 2007; Woods and Jeffrey, 2002). The interviews showed support for this, with the teachers and retired teachers indicating that they would put family before work when required. This echoes Woods and Jeffrey's (2002) suggestion that teachers may preserve their personal identity whether or not it is integrated with work. It is possible that this is because the need variables contained in this dimension are particularly important to individuals. Personal Acceptance needs did not increase when orientation was to life, but remained relatively static regardless of work-life orientation which is reflective of Nias's (1989) stable 'substantial' self.

Achievement reduced in satisfaction when orientation was to work. This suggests that a work orientation may be detrimental to individual success in the workplace (i.e. gaining promotion), as well as preventing the achievement of life goals. Dunham (1992) has indicated that stress can lead to lower levels of performance for teachers, and the reduction in the satisfaction of Achievement when orientation was to work may be reflecting this. The interview findings indicated that some teachers strived towards promotion. However, the focus on work which stems from pursuing career success may reduce the ability to achieve these goals. Conversely, Achievement dropped only slightly when orientation moved to life. This suggested that teachers still managed to achieve their goals and view themselves positively in relation to others. However, this may be as a result of having lower expectations in relation to work goals and comparisons with others in the workplace.

In summary, Hypothesis 2a stated that needs are most satisfied when work-life orientation is in balance and the findings supported this. However, as has been discussed, the dimensions did not follow predictable patterns when orientation was not balanced. Teachers may orientate their energy towards work to complete activities which do not necessarily satisfy work needs which may risk burnout by

directing high levels of energy to work. Even where they direct energy to the life domain, they will continue to ensure the development of their pupils.

Associations between Work-life Orientation, Need Satisfaction and Wellbeing

The model in Chapter 2 predicts that directing equal amounts of energy towards satisfying needs in both work and life results in higher wellbeing. The general literature supports the premise that satisfying needs across various domains is also associated with wellbeing (Sheldon et al., 2010a; Matuska, 2010; Milyavskaya et al. 2009). It also indicates that directing energy to multiple domains will result in greater wellbeing (Marks and MacDermid, 1996). However, no study has considered how needs should be satisfied in work and life to optimise wellbeing, limiting a holistic understanding of how need satisfaction can enhance employee wellbeing. The findings of this study showed that where work-life orientation was balanced, wellbeing was optimised (H2b; see Figures 3 and 4, Chapter 6). Need satisfaction also explained wellbeing (Hypothesis 2c), but only for Professional Development, Personal Acceptance and Work-Life Interface needs (see Table 13, Chapter 6).

The findings of this study indicated the importance of balancing work-life orientation to optimise wellbeing (specifically life satisfaction and affect, see section 6.3.2). The negative impact on wellbeing became particularly apparent when there was a high orientation towards either work or life. The reduction in wellbeing as orientation moved towards work may be explained by the additional pressures placed on teachers which prevent them from satisfying their needs. The findings indicated that certain dimensions explained wellbeing (see section 6.3.3).

The Professional Development dimension was shown to explain wellbeing, and the decrease in the satisfaction of Professional Development may explain why wellbeing reduced as orientation moved towards work. Day and Gu (2007) indicate that teachers can both learn and deal with a challenging job. However, the findings from this study suggested that while teachers maintained a sense of identity (Person-Profession Alignment) and commitment to the children they taught (Relations in Work) where the challenges of work were high, they were unable to sustain the satisfaction of their own development needs and wellbeing at the same time. This

means that the recent focus of Scottish teaching on re-invigorating professional development (Donaldson, 2010) is appropriate, but only where implicit expectations that teachers work beyond a 35 hour week (McCormac, 2011) are managed. It may not be possible for teachers to satisfy their development needs when dealing with a challenging workload which could, in turn, affect their performance.

It may also be necessary to moderate the extent to which teachers aim to satisfy Professional Development as this dimension only explains positive affect. Although enhancing positive emotions is desirable, the evidence from the psychology literature is that emotions will return to a set-point (Diener et al., 2006). It is possible that the effects of satisfying Professional Development on affect will be temporary and that teachers will therefore continually have to develop in order to maintain positive emotions. This suggests that work provides a limited form of wellbeing. By making the job attractive through the provision of development opportunities, there is a risk that a teacher's resources may be focused on this to the detriment of life needs which may be more likely to provide other types of wellbeing. While Professional Development may contribute to a greater commitment to the job (Day et al., 2005), it may be detrimental in the long run in terms of targeting wellbeing which feels good but cannot be sustained. Other dimensions may be more conducive to producing and maintaining wellbeing.

Work-Life Interface was also associated with wellbeing in the findings. The association between Work-Life Interface and wellbeing appears to highlight the importance of preventing the strains of the workplace from negatively affecting teachers. This finding was consistent with the work-life conflict studies for teachers (Palmer et al., 2012) and studies which show that increased work-life interference can be associated with emotional strain such as burnout (Cinamon and Rich, 2007). The interview findings indicated differences between activities which satisfied needs (e.g. extra-curricular activities) and organisational requirements such as paperwork which did not tend to satisfy needs but increased the amount of work. Activities which are aligned to personal values (such as running out of school clubs) do not appear to negatively impact on life or health, even where work demands are high.

Only certain kinds of activities may impact negatively on life and health and therefore impact on Work-Life Interface, leading to lower wellbeing.

Work-Life Interface did not increase with orientation to life, as might be expected. It is not clear why this might be the case from the findings, but one speculation may be that the emotional demands of teaching (McCormick and Barnett, 2011; Day, 2002; Nias, 1989) are such that, even when a teacher has an orientation to life, there will still be some interference from work. This may therefore reduce wellbeing. Fernet et al (2012) suggest that satisfying workplace needs buffers teachers from emotional exhaustion and given that work dimensions (Professional Development and Person-Profession alignment) reduced with an orientation to life, individuals with a life orientation may have continued to experience work stressors but were not buffered from these to the same extent.

Personal Acceptance was sustained regardless of work-life orientation and satisfying this dimension contributed to the wellbeing of teachers. It is possible that the satisfaction of Personal Acceptance protected teachers from stress due to its positive effects on wellbeing. However, sustaining this dimension is not sufficient to maintain wellbeing when orientation is to work or life. Other factors such as workload or work-life interference may impact on wellbeing when orientation is not balanced.

This section has argued that teachers should attempt to maintain a balanced work-life orientation but focus this energy on satisfying the salient dimensions in work and life (Personal Acceptance, Work-Life Interface and Professional Development) which are likely to increase wellbeing. This may increase the chances of experiencing higher wellbeing. Given the associations with wellbeing and performance for teachers (e.g. Frenzel et al, 2009; Dunham, 1992), increasing wellbeing is likely to have organisational benefits in relation to effectiveness.

8.3.3 RQ3: How do (a) promotion (b) tenure in role (c) age and (d) gender influence work-life orientation, need satisfaction, and wellbeing?

It was useful to consider the effects of career and life stage on satisfying needs in work and life as it is not always clear how these stages might affect need satisfaction. There is general evidence to suggest that need satisfaction is affected by life or career stage (Van den Broeck et al, 2008; Vansteenkiste et al, 2007; Schaufeli and Bakker,

2004). This can also be seen for wellbeing (Van den Broeck et al., 2010; Dolan et al., 2008; Bradley, 2007) and work-life orientation (Keeney et al., 2013; Chen et al., 2011; Matthews et al., 2010; Cinamon and Rich, 2002). The findings indicated that women have higher wellbeing than men, partially supporting Hypothesis 3d. Hypotheses 3a – c were not supported, with need satisfaction increasing (rather than decreasing) for promoted staff and increased age associated with a slight increase in negative emotions. Women also had a higher orientation to work than men which was contrary to the literature. Promoted staff had slightly higher levels of presence of meaning in life. No other effects of career or life stage were found in this study.

Previous studies have focused on tenure in career and have shown that teachers have differing experiences at different career stages (Day et al, 2007; Huberman, 1993). This study considered role tenure to take into account any negative effects of socialization which the general literature suggests is experienced in a new role (Kramer, 2010). However, no effects were found on need satisfaction, wellbeing or work-life orientation. It is possible that considering time spent in a role is not as important to these variables as overall career stage which may account for the lack of effect. Age only had an effect on negative emotions but no other variables and this may be as a result of age not necessarily corresponding with career stages (Day et al, 2007) which may be more likely to satisfy needs in work and life.

Despite promotion not necessarily being the main motivation for teachers (Day et al, 2007) the findings indicated that being in a promoted post increased need satisfaction. This, along with the slight increase in meaning in life for the promoted group, suggested that promotion was associated with increased fulfilment and meaning. This may be as a result of greater scope to choose the actions which satisfied needs which has shown to increase satisfaction with the job (MacBeath et al., 2009). This is despite the high levels of demands from external bodies such as local or central government or the inspectorate (MacBeath et al., 2012). The view of non-promoted teachers that holding a head teacher post can be a 'thankless' task (MacBeath, 2011) may not be the case in relation to the fulfilment which can be gained from need satisfaction. Given that there was no significant difference in work-

life orientation between promoted and non-promoted staff, there was no suggestion that promoted teachers directed more energy to the workplace.

Finally, the findings indicated that women were more likely to have an orientation to work but were also likely to have greater wellbeing. This was despite there being no effects on need satisfaction. Given the low response rate from men (n=15) these findings must be treated with caution. However, this study did not support other evidence that women teachers have greater levels of stress (e.g. Klassen and Chiu, 2010) and while women reported that they directed more energy to the workplace, their overall wellbeing was higher and their need satisfaction at the same level as men. One explanation may be that women have to do more to sustain Personal Acceptance and Work-Life Interface in order to manage the needs of their family, as well as their own. Cinamon and Rich (2002) argue that women may place greater focus on family, even where they work full time and show that they experience greater levels of work-life conflict. This may positively impact on their wellbeing, but may also mean that they need to put more energy into maintaining work needs.

8.3.4 RQ4 and RQ5: What are the most significant enablers and challenges in achieving / maintaining satisfied needs in life and work?

The model in Chapter 2 argues that there may be enablers and challenges which may impact on an individual's ability to satisfy needs in work and life. The purpose of research questions 4 and 5 were to explore what those enablers and challenges to need satisfaction were. For research question 4, the enablers and challenges were grouped into three main themes: the availability of development at work, the working environment and dealing with change in the workplace. For research question 5, the enablers and challenges mainly involved the support of and supporting others. In addition, the ability to transition in and out of life could enable or challenge need satisfaction. Each of these themes is discussed in relation to the literature and in relation to their effects on need satisfaction for teachers.

Support of and Supporting Others in Life
The findings indicated examples of where the job could both enable and challenge need satisfaction in the life domain. Work-life interference was evident, but the flexibility and intensity of the job could both challenge and enable the satisfaction of life needs. Specifically, the flexibility of the job affected how these teachers

supported their family in the life domain. The respondents either reported being able to utilise the flexibility of their job to care for their children or relatives, or found it difficult to prevent interference from their job when providing this care. The support of others in life could likewise enable need satisfaction in the work domain by allowing the respondents to both work and care for their families.

Participants in this study reported working outwith the working week but also ensured that they could spend time with their families. This is in line with Cinamon et al. (2007) who have shown that flexible working in teaching reduces the extent to which family interferes with work. However, this study indicated that even where participants reported being able to address the demands of both work and life, there was evidence of significant sacrifice to be able to meet the requirements of work. The idea that teachers may 'tolerate' conflict between work and life when supporting others (Day et al., 2007: 116) could be seen in relation to the effort it took to successfully manage the demands of both the work and life domains. This tolerance may arise from the benefits which teachers receive from being able to satisfy needs in both work and life as a result. However, the findings also indicated that teachers could be discontent with work-life conflict where their needs were not being met. For example, taking paperwork home may neither satisfy work needs nor family needs but has to be done as a demand of the job.

The theme of care is discussed in the literature in relation to pupils (Bullough and Hall-Kenyon, 2012; Day et al., 2005; Sutton and Wheatley, 2003) and a similar theme could be seen in the respondents' desire to support close family members and their own children in their personal lives. The teaching literature argues that teachers will devote considerable effort to provide for and care for those they teach (Estola et al 2003) and the findings in Chapter 5 indicate that this may satisfy the Relations in Work dimension (work relationships and developing others). However, an equivalent focus on caring for family was also reported. This focus may lead to satisfaction of Personal Acceptance, but may cause teachers to be pulled in both directions because they care for their own children and those they teach. The examples in the interviews suggested that the psychological strains which accompany caring for pupils can interfere with the life domain. Some respondents appeared to consider this and

reported holding off from returning to teaching until their children were older to avoid caring for their own children at the same time as those they teach. The interview respondents also reported relying on the support of others to ensure adequate care for their own families (e.g. their parents or child-minders). This can be seen in other studies which indicate the effects of spousal support on reducing conflict between life and work (Cinamon and Rich, 2010).

The role of teacher is an emotional one (Day et al, 2007) but can enable positive emotions, such as care (Sutton and Wheatley). However, while caring for pupils satisfies the Relations at Work dimension, this can be to the detriment of Personal Acceptance (which includes family and relationship need variables). For example, one respondent described the feelings of guilt that could arise from not being available to pupils during the school day which resulted in taking other work home. The strain of the job may be less about teachers supressing their true emotions (i.e. emotional labour) as some commentators argue (Chang 2009), but instead may result from the stress caused by positive feelings such as care leading to an over-satisfaction of Relations at Work. This is in line with Woods et al. (1997) who argue that over-commitment to the role can impact on teacher wellbeing.

Palmer et al (2012) suggest that the greater the family pressures on a teacher, the more likely they are to experience conflict between work and life. Factors outwith teachers' control, such as the illnesses of others could impact on their ability to address the requirements of both domains. The findings provided examples of where the classroom environment assisted with respite from difficult events due to the intensive nature of teaching, but this relied on a teacher's ability to temporarily detach from the life domain. The teaching literature considers the effects of life on work, but generally shows this to be an additional stressor in the workplace (Day et al, 2007; Woods et al, 1997; Hargreaves, 1994). However, the findings suggested that, for some interview participants, high intensity work may re-energise teachers when they are going through challenges in life that are otherwise uncontrollable. However, Palmer et al (2012) indicate that work is more likely to cause interference than family and the respondents of this study also reported experiencing work-life interference.

Ability to Transition To and From Life to Satisfy Needs

Different domains appeared to provide greater or lesser opportunities to satisfy needs at different times and respondents reported using the flexibility of entering and leaving the profession to meet their needs. For example, the life domain did not appear to provide opportunities to satisfy a full range of needs when individuals were raising their children, and the teachers and retired teachers chose to move back into the workplace in order to satisfy needs. Despite the pressures which working can bring, the respondents reported choosing to return to work, even though they did not always require to financially. Most reported doing supply work before their roles became permanent. It is possible that this phased, often unplanned, return to work meant that the consequences of the effects of a full-time role were not always considered. However, a return to work also appeared to contribute to increasing need satisfaction.

One reason the respondents reported re-entering the workplace was because the job satisfied Person-Profession Alignment (specifically, expressing inner values) and Relations in Work (specifically, working with children). This is similar to the reasons why individuals will enter the profession in the first place (Richardson and Watt, 2006; Huberman, 1993). However, some respondents also reported a desire for adult interaction. Raising their own children could satisfy the teachers' need to interact with children, but did not appear to necessarily enable the satisfaction of broader relationship needs (particularly with adults). There was also a desire for professional development in the form of greater challenges which work offered. While both of these reasons are indicated as being motivators in other studies (e.g. Nias, 1989) the Professional Development, Relations at Work and Person-Profession Alignment dimensions identified in Chapter 5 appeared to have particular importance in encouraging the return to work.

As teachers become older, they can start to disengage from their careers and their focus moves to their personal lives (Huberman, 1993). They deal with change in different ways from those in earlier career stages (Day et al, 2007). While some interview respondents discussed a lack of energy and fatigue with change, the findings suggested that their move out of the workplace was also about a positive move towards the needs that the life domain could satisfy rather than disengagement

with teaching. The small number (n=7) of retired teachers could have meant that this particular group were more positive about their careers. However, teachers in the latter stages of their career may decide that their needs can be better served by the life domain due to opportunities created by having grandchildren, having the financial means to travel or the desire to foster non-work friendships.

Age had no effect on need satisfaction (see Chapter 6, Section 6.4) but despite this, the interview accounts suggest that teachers can vary their focus on either the work or life domain in order to satisfy needs at different points in their lives. This suggests that the types of needs do not necessarily change, but that the domain which facilitated need satisfaction does. The interview accounts supported this. Further longitudinal research is required, but these findings tentatively suggest that while satisfying relationship and development needs is always important, different contexts at different times may provide the opportunities to satisfy these needs in different domains. This reflects Day et al's (2007) arguments that teachers will experience variations in their abilities to sustain identities across work and life. This may encourage individuals to adjust their work-life orientation to focus their energy on satisfying needs which are currently unsatisfied.

Availability of Development in the Workplace
The availability of development opportunities in the workplace appeared to facilitate the Professional Development dimension in terms of having the skills, knowledge and energy to do the job well. On-the-job development, secondments and promotions help to invigorate careers (Oplatka, 2005a, 2005b). This was reflected in the accounts of some of the respondents, as was the opportunity to gain knowledge about the profession. There is an expectation that Scottish teachers focus on their professional development (Donaldson, 2010) and changes to Scottish teaching have seen an increase in autonomy and increased responsibilities for decision making (MacDonald, 2004) giving opportunities for re-skilling (Ballet et al, 2006). On-the - job development such as secondments may help to facilitate and encourage these changes.

Formal learning was indicated as being useful in the interviews but this study suggested that, while formal courses helped to avoid mistakes and surprises when

moving into promoted roles, on-the-job learning was more likely to be discussed. This is contrary to findings by Friedman and Phillips (2004) who indicate that informal approaches to learning are considered by teachers to be a less effective form of CPD. However, Friedman and Phillips (2004) do acknowledge the need to embed learning in teaching practice. There appear to be benefits in providing a context where employees can apply the skills they have learned from formal courses.

The McCormac report (2011) has already recommended that more movement of teachers is necessary. This suggests that there is an acknowledgement of the benefits of moving to new posts and new schools in order to provide on-the-job development. The findings of this study suggest that this approach may in turn satisfy need variables within the Professional Development dimension. However, the continuation of formal training provision may also be important to complement on-the-job training to avoid any initial lack of fit between their level of experience and the job, which Smylie (1999) highlights can cause stress. Formal training may benefit teachers by providing safer skill development and giving them confidence.

Support and Expectations of Others at Work
The partnerships with managers, colleagues, parents and other agencies were reported as being either supportive or creating challenges. There is extensive literature on the positive effects of supportive leadership (e.g. MacBeath et al, 2012; Cheung Lai-man et al, 2008; Dunlop and MacDonald; Day, 2002). However, Smylie (1999) also indicates that the expectations of others can increase pressure on teachers. For example, the participants in this study reported that relationships with parents could be challenging. However, interactions with parents were also reported to provide strong partnerships which could be used to benefit pupils. Regardless of whether these partnerships were positive or difficult, they were indicated to cause additional workload pressures. Despite this, the interview respondents reported that good relationships with parents and others were important in providing better provision to their pupils. This suggests that there are occasions where challenges will lead to satisfaction of Relations in Work, despite increasing work demands.

A desire to meet the expectations of others may also increase work pressures. The findings provided examples of where additional workload was perceived as

detracting from the core activity of developing pupils. Teachers can be affected by how they appear to other people (Kelchtermans, 2011) and public scrutiny may encourage them to undertake activities which do not necessarily satisfy their needs. However, the findings indicated that there may be an element of self-imposed intensification, i.e. wanting to be a perfect teacher (Day et al, 2007; Ballet et al, 2006). Some respondents indicated that teachers can go beyond the demands of the role to satisfy Achievement, either by trying to appear be a better teacher than others or meeting their own self-imposed goals for success. However this approach had negative impacts on their health. The importance of developing and meeting the needs of pupils may be an alternative explanation of why teachers apply greater discretional effort (Woods et al., 1997; Hargreaves, 1994). However, this would still be expected to increase workload and put pressure on their health.

Professional Working Environment

Working in schools in areas of deprivation was cited as a challenge by some respondents. Individuals working in areas of high deprivation can be more likely to leave these schools (Guarino, Santibanez and Daley, 2006) or to experience the effects of poor health (Day et al, 2007). In this study, respondents tended to fit into one of two types: those who felt that working in a school in an area of deprivation was emotionally difficult but worthwhile or those who worked in a deprived area but did not mention being affected by this. Working in challenging schools could affect health, but could also positively impact on the dimension of Professional Development due to the learning which could be gained. For other respondents these schools appeared to increase satisfaction of the Person-Profession Alignment dimension. Day and Gu (2009) found that developing others and realising inner values can have a positive effect on teachers' wellbeing, despite any challenges they face. The sense of meaning which comes from supporting children who have had a difficult start in life may off-set the experience of any negative impact on wellbeing that stems from dealing with challenging issues.

An alternative explanation may be that these teachers had certain personalities or dispositions which meant that their health was not affected. Day et al (2007) suggest that a teacher's individual characteristics must be taken into account when considering the effects of working in a disadvantaged area. It is possible that the

teachers who stayed in challenging schools had certain traits which were not apparent in the interviews but which buffered them from the stresses of working in a challenging environment. However, the findings did show that challenging conditions can affect needs both positively and negatively and indicated the importance of finding ways to satisfy needs for teachers who work in challenging schools.

Discussion of Dealing with Change at Work: Challenges of Optimising Need Satisfaction

Change has been shown to have an impact on teachers (Oplatka, 2005a, 2005b) and both Kelchtermans (2005) and Day et al (2007) highlight the resulting effects on emotions which teachers experience. Change was described by both teachers and stakeholders in relation to the new curriculum, mainly focusing around the requirement to develop new teaching resources and the increase in workload which it brought. Changes to the curriculum were more likely to be discussed negatively, particularly by some retired teachers who reported being unwilling to go through more changes to the curriculum. This was in comparison to other findings which had shown that participants had wanted to change school in order to increase their engagement with the job. The difference in perceptions of change may be in relation to whether the change is voluntary or whether teachers have no choice.

However, whether or not these changes satisfy needs may also affect whether they are viewed positively. It is possible that while change may risk negative consequences (Kelchtermans, 2005) it also has the potential to satisfy needs. Where change impacted on Relations in Work in relation to developing others, for example by increasing workload, this may have caused teachers to view the change as negative. For other respondents in the study, they did not report any effects on Relations in Work as a result of this change and therefore did not report any discontent.

It would be expected that *Curriculum for Excellence* would be a positive change in relation to the increase in teacher autonomy which it brings, as it moves away from the highly controlled environment that is argued to be associated with intensification (Apple, 1986). Despite this, the findings indicated that some teachers did not view

the change as positive and saw it as increasing their workload. Ballet et al (2006) also discuss the disinterest teachers may have in making decisions which do not have a direct impact on the children they teach. This suggests that greater autonomy must benefit the teacher, rather than the needs of the school or profession, to have a positive effect. The retired teachers who did not like the change to the curriculum (particularly those who already used similar active learning skills) could not see a benefit to this new approach. In contrast, the working teachers did not view these changes in a negative way.

This can be further seen through the interview reports of gradual worsening of children's behaviour. Dealing with poor behaviour can increase work-life conflict (Cinamon et al, 2007) and the ability to be successful in the classroom (Day et al, 2007). It can also cause teachers to disengage from their work (Smylie, 1999). The findings indicate that the unpredictable nature of poor behaviour means that it cannot be planned for and relies on the support of school managers to help teachers deal with it. This echoes Kelchermans' (2011) indication of the vulnerability that being unable to control one's environment can create. Poor behaviour may prevent the satisfaction of needs, impacting on the dimension of Relations in Work. Building relationships with pupils is a particularly important relationship need (Klassen et al, 2012) and it is argued that not being able to satisfy this need is likely to have an impact on teachers.

8.4 Implications for the Model in Other Work Contexts

There is support in the need satisfaction literature that the findings may be applicable to a broader population of employees. Therefore other employees may also benefit from balancing work-life orientation to satisfy needs in both work and life in order to maximise their wellbeing. While the enablers and challenges discussed in this study may be more relevant to a teaching specific context, it is argued that all employees will face enablers and challenges to need satisfaction, even though these may be different for different professions or workplaces. A discussion takes place in section 8.4 to argue the relevance to other workplaces.

Important Needs in Work and Life in Organisations

The important needs which were identified in the study emerged from theories in the need satisfaction literature (Finnis, 2011; Sheldon et al. 2004; Ryff, 1989; Ryan and Deci, 2000; Maslow, 1954/1987) and are therefore argued to represent needs which are applicable outwith the teaching profession. For the needs which were rated as less important by teachers (see section 5.3.1) evidence can be seen which suggests that this will be applicable to other types of employees. For example, the low score for status is in line with the Self-Determination Theory which considers the pursuit of status to be less important because of its extrinsic focus (Kasser, 2002; Sheldon et al, 2001; Sheldon and Kasser, 1998; Kasser and Ryan, 1996). The need for safety was also given a low score. Earning money can be associated with safety (Maslow, 1954/1987) but the extrinsic value of this need (Sheldon et al, 2001; Kasser and Ryan, 1993) may mean that it is considered to be less important.

Achievement and developing others emerged from the teaching interviews (see section 5.2) rather than existing need frameworks. These were rated as being more important than needs such as excellence and mastery and a belief system, which are central to existing need theories (Finnis, 2011; Maslow 1954/1987; Ryan and Deci, 2000) suggesting that they were valid needs to include in the framework for teachers. The literature suggests that achievement may involve comparing career success to others (Heslin, 2005) and is similar to Maslow's (1954/1987) assertion that individuals use comparisons with others to judge their own effectiveness. However, it is unclear whether these needs may be unique to teaching professionals and further testing would be required to ensure that these needs have relevance to other types of employees. Developing others, in particular, may not be relevant to non-teachers, although it is alluded to by Finnis (2011) in terms of building relationships with others.

The findings indicated that the need variables grouped into seven dimensions. The life dimensions (Personal Acceptance and Personal Development) were argued to be applicable to all employees in Section 8.3.1 of this chapter. However, there is also evidence to suggest that the work dimensions may also be relevant to employees in other occupations. The remainder of this section considers the key findings in relation to the general literature.

Having a vocation and meaning at work are included in the Person-Profession Alignment dimension. However, while Hall and Chandler (2005) indicate that a sense of calling can either be internally driven or be a result of wanting to meet the needs of others, the Person-Profession Alignment dimension suggests that a sense of vocation is more closely aligned to realising personal values, rather than making a sacrifice for others. These findings are in line with Berg et al. (2010) who argue that a calling is something that individuals want to do as well as being aligned to their identity. Dik and Duffy (2009) argue that in addition to the personal value of a calling, it should also be meaningful to others. Contrary to other studies, the findings did not support the concept that a calling includes an aspect which involves a focus on others. However, the Calling and Vocation Scale (Dik et al, 2012) indicates that the personal meaning and the pro-social aspects of a calling are different subscales. The findings of this study reflected this differentiation, with Person-Profession Alignment (personal meaning of the job) differing from Relations at Work (includes serving others).

For Relations in Work, work relationships are considered to be important in the general literature (Van den Broeck et al, 2010; Vansteenkiste et al, 2007; Dahlin et al, 2008) but there is less emphasis on meeting the needs of, or being appreciated by others. The Relations in Work dimension suggests that Finnis's argument that individuals forge social ties by developing others is supported. However, given that these aspects do not appear in other work need scales (e.g. Van den Broeck et al, 2010) it is possible that the variables of developing and meeting the needs of others and being appreciated by others may be specific to teachers.

Professional Development is similar to the workplace development needs which are captured in Van den Broeck et al's (2010) scale. However, Professional Development also contains variables such as energy to do the job and working in a safe environment. Although having energy to do the job is not always viewed as a need (Bakker and Demerouti, 2007) it is considered to be an important psychological resource and is associated with developing on the job. In addition having safety may allow freedom to make mistakes while individuals are learning new skills (Carmeli et al., 2009; Carmeli and Gittell, 2009; Edmondson, 1999).

The Achievement dimension considers individuals' performance in relation to others and in terms of the goals they set. The career success literature makes the distinction between subjective success (whether an individual considers his or her career successful) and objective success (success which is comparable to others, such as salary level) (Arthur, Khapova and Wilderom, 2005). This dimension appears to reflect both aspects of success. Finally, the variables included in the Work-Life Interface dimension consider the need to protect life from the effects of work. This dimension captures the strain-based element of work-life conflict (Greenhaus and Beutell, 1985) whereby work can interfere on a psychological and physical basis (Friedman and Greenhaus, 2000; Grzywacz and Marks, 2000). The Work-Life Interface dimension suggests that caution must be applied to an individual's resources being exhausted by the work domain.

The Association between Need Satisfaction, Wellbeing and Work-Life Orientation for Employees

There are bodies of literature to support the premise that need satisfaction in the workplace and in the life domain results in greater wellbeing (e.g. Baard et al., 2004; Ryan et al., 2008) but consider either work or life only. The findings of this study showed that where work-life orientation was balanced, both need satisfaction and wellbeing were optimised. Need satisfaction explained wellbeing, but only for Professional Development, Personal Acceptance and Work-Life Interface needs.

Need satisfaction did not follow a predictable pattern when work-life orientation was not balanced (See Figure 4, Chapter 6). The findings were counter to expectations from the work-family conflict literature (Eby et al, 2005) which suggested that the Personal Acceptance dimension may reduce as a result of interference from work. However, this dimension did not reduce where orientation was to work and was not affected by an increase in work-life interference. This suggests that, despite work-life interference, individuals may sustain this dimension because of its importance to them. An orientation to life results in a more predictable pattern of need satisfaction. Frone et al. (1992) indicate that preoccupation with the life domain affects the ability to address demands in the work domain and this can be seen in relation to the Professional Development and Person-Profession Alignment dimensions which reduced as orientation to life increased. In contrast the Relations in Work dimension

does not decrease as orientation moves to work. Pinquart and Silbereisen (2010) argue that a focus on career will reduce the extent to which an individual builds relationships. However, the findings indicated that relationship needs are likely to be maintained, regardless of orientation to work or life. This may be reflective of teachers' specific focus on building relationships with their pupils to develop them and would require further investigation to establish whether this is salient for other groups of employees.

Where an individual directs high levels of energy towards the domain of work, the reduction in wellbeing suggests evidence of workaholics. Individuals who are workaholics and do not enjoy their job, are more likely to experience reduced meaning by focusing on doing a good job rather than pursuing intrinsic goals (Bonebright et al., 2000). Individuals may feel obliged to work but do not enjoy it (Schaufeli, Bakker, Van der Heijden and Prins, 2009). Increasing orientation to work did not show a corresponding increase in the satisfaction of work dimensions, suggesting that effort was being spent on activities which were not satisfying needs. Vansteenkiste et al (2007) argue that individuals pursue external values because they care what other people think and individuals may then inadvertently increase the demands on themselves by becoming increasingly burnt out and unable to deal with their workload (Bakker and Demerouti, 2007). In addition, the drop in satisfaction of the Work-Life Interface dimension indicated work-family conflict, which can also be associated with workaholism (Bakker et al., 2009).

Professional Development was shown to be the only work dimension associated with positive affect (see Section 6.3.3) and includes needs such as being able to make improvements in the workplace and knowing about the wider standards of the job. However, the likelihood that positive emotions return to a set-point over time (Diener et al 2006) suggests that this dimension may not result in a stable form of wellbeing. While a balance of needs is important, the workplace may not be the best domain to focus on when attempting to optimise wellbeing. The interview findings suggest that on-the-job development may be a particularly effective way of satisfying development needs (see Section 5.2, 'excellence and mastery'). It therefore may be

important to design jobs in a way which maximises the satisfaction of Professional Development needs in order to optimise wellbeing.

It was surprising that the dimensions of Relations in Work and Person-Profession Alignment did not explain wellbeing, as other workplace studies suggest that similar work needs are important in relation to minimising exhaustion and increasing vigour (Van den Broeck et al., 2010; Van den Broeck et al., 2008; Vansteenkiste et al., 2007). However, this may be due to the focus of this thesis on general measures of wellbeing, rather than job specific measures. For example, Van den Broeck et al., (2010) show that work needs have lower associations with life satisfaction than with job measures of wellbeing.

The contextual influences on need satisfaction
The findings indicated that contextual factors can impact on the extent to which individuals are able to satisfy their needs. The interviews which provided data on the contextual influences focused on a limited number of teaching professionals and stakeholders in Scottish teaching. As a result, it cannot be suggested that the same challenges or enablers will be found in other professions or workplaces. However, there is evidence to suggest that the contextual mechanisms which support or prevent need satisfaction may be similar.

For example, there are studies which highlight the importance of being in control over the time spent in different areas of life (Sheldon et al., 2010a; Matuska, 2010), which suggests that being able to transition from one domain to another is important. There is also extensive general literature which shows that the support of others is important to be able to avoid work-life interference (Ferguson et al., 2012; Lu et al., 2009; Aryee et al., 2005; Ford et al., 2007). The findings of this study indicated that employees may seek support from a range of people which suggests that the focus on colleague relationships in the work need literature (Van den Broek et al, 2010) may be too limited to consider all potential relationships that a job might entail such as customers or other workplace partners. Further study on other professions would be required to consider whether other jobs have similar effects on employees.

8.5 Alternative Antecedents to Wellbeing

The model explored in this thesis provides an insight into how needs should be satisfied in work and life to optimise wellbeing. However, the focus on needs as antecedents to wellbeing is not meant to imply that there are no other potential antecedents which could have been considered. One benefit of need satisfaction is that making changes may be within an individual's control. This is in comparison to other antecedents such as personality (McCrae and Costa, 2003), job design (Kompier, 2003) or social interactions (Ng, Eby, Soresen and Feldman, 2005) which may be more difficult for an employee to change.

The model considers wellbeing as an outcome of need satisfaction. However, wellbeing may be an antecedent to a balanced work-life orientation and need satisfaction in both domains may require wellbeing to provide the resources to do this (Fredrickson, 1998; 2001). Certainly, there are indications in the teaching literature that positive emotions can buffer teachers from the challenges of the job (Oplatka, 2005a) and facilitate the commitment that teachers have (Nias, 1996). Love (Nias, 1989) and care (Sutton and Wheatley, 2003) are two of the emotions which are discussed in the teaching literature. Conversely, negative emotions are experienced by teachers (Rudow, 1999) and the effects of these may take their toll in relation to having to manage these emotions.

Aspects such as care and commitment have been considered within the context of need satisfaction in this study. For example, teachers may care for the pupils they teach because it facilitates the satisfaction of the Relations at Work dimension. In addition, commitment may arise from Person-Profession Alignment which sees teachers align their own values with those of the workplace and gain meaning from their job. The Person-Profession Alignment dimension also captures a sense of calling and vocation which can be seen in the teaching literature (e.g. Bullough and Hall-Kenyon, 2012).

Resilience is another potential antecedent and this may enable employees to create their own opportunities to increase job resources, suggesting that those who have the belief that they can satisfy needs in work will do so (Xanthopoulou, Bakker, Demerouti and Schaufeli, 2009). However, resilience does not always protect

employees from the effects of work demands (Xanthopoulou, Bakker, Demerouti and Schaufeli, 2007). This suggests that even where employees display positive personal qualities, they may be unable to increase their wellbeing where the demands of the job are high. Rather than attempting to boost engagement in the workplace (particularly for those who are already engaged and prone to workaholism) the findings of this study suggest encouraging a balanced work-life orientation and facilitating need satisfaction in work and life may be a better means of increasing wellbeing. This may help to avoid work-life conflict and help to optimise wellbeing.

Care, commitment, vocation and resilience are variables which have scope to be investigated in more depth. However, this model considers the variables which were central to the research questions of the thesis. Therefore these potential themes were not developed as separate themes but were either included as elements of need satisfaction or not considered as part of the study.

8.6 Chapter Summary

This chapter considers the implications of the findings of the thesis. It has discussed each of the research questions in turn to consider the implications of the findings in relation to the teaching literature. It has shown support for seven dimensions, with three dimensions focusing on work, two on life and two spanning both domains. The study has indicated the importance of having a balanced work-life orientation and therefore satisfying these dimensions and optimising wellbeing. It discusses the implications of not having a balanced orientation and indicates that an orientation to work will not increase the satisfaction of work dimensions. In comparison, the life dimension of Personal Acceptance is not affected by work-life orientation. A range of enablers and challenges may both support and prevent need satisfaction in work and life. This chapter also discusses the relevance of the findings to a wider range of employees. Although the study was conducted on primary teachers, the general literature provides support to suggest that these findings may also be relevant to other employees. It also indicates the support which the findings provide for the model which has been proposed. The following chapter concludes this thesis by considering the contributions this thesis has made, as well as considering the limitations and scope for further research.

Chapter 9
Conclusion

9.1 Introduction

The aim of this thesis was to explore ways in which wellbeing can be optimised by satisfying needs in work and life. As part of this, a model was proposed and developed in this thesis (see Figure 8, Chapter 8) which indicates the relationship between work-life orientation, need satisfaction and wellbeing for Scottish primary teachers. There is a lack of research on how needs should be satisfied in work and life for wellbeing, and this model helps to address this by presenting a conceptual understanding of the associations between these variables. It shows that work-life orientation, need satisfaction in work and life and wellbeing are associated. It also shows that there are enablers and challenges which impact on both work-life orientation and need satisfaction in work and life. Job position, gender and age all have an effect on wellbeing, with job position having an effect on need satisfaction and gender having an effect on work-life orientation.

This chapter summarises the significant contributions which this thesis has made. It has identified a range of important needs and has investigated how needs are satisfied in work and life and the associations between satisfied needs, work life orientation and optimum wellbeing. This chapter also summarises the impact of contextual challenges and enablers on need satisfaction. It outlines the limitations of the study and makes some suggestions for further research to help expand and supplement this thesis.

9.2 Contributions of the Study

Rather than focusing on common employee wellbeing approaches such as stress-prevention or encouraging more positive relationships at work (Young and Bhaumik, 2011) this study has identified how needs should be satisfied in work and life to optimise employee wellbeing. Being aware of the needs which lead to wellbeing helps employers to narrow down and focus their policies and limited resources. It also provides employees with an understanding of how they should direct energy to work and life to satisfy needs which in turn will impact on their wellbeing.

9.2.1 What basic needs must be satisfied in both work and life domains for wellbeing?

This study has drawn from various need theories in order to develop a framework of needs which adequately represents an Aristotelian fulfilled life. Three existing need frameworks (Finnis, 2011; Ryan and Deci, 2000; Maslow, 1954/1987) were used to propose a set of needs. Hypothesis 1a stated that satisfaction of the following needs influence wellbeing: 1) knowledge, 2) harmonious relationships, 3) excellence and mastery, 4) health and vigour, 5) safety, 6) family, 7) inner peace, 8) belief system, 9) status, 10) autonomy. Two addition needs (achievement and developing others) were identified and the needs of status and safety were not considered as important as the others. Hypothesis 1b then proposed that the pattern of need satisfaction in work and life conforms to a ten factor model which corresponds to those needs. The findings indicated seven dimensions which were considered to be important (see Section 5.3.2): Personal Acceptance, Personal Development, Person-Profession Alignment, Professional Development, Relations in Work, Achievement and Work-Life Interface.

It is argued that these seven dimensions provide an insight into the groups of needs which can be satisfied in work and life for teachers to have a fulfilled life. Some of the dimensions also provided some useful insights into the relationships between the need variables. Need satisfaction has been argued to represent Aristotle's fulfilled life (Ryan and Huta, 2009), but need theories have been not been developed from this standpoint. This study has contributed to both the organismic and positive psychology literature in terms of developing a comprehensive set of dimensions which are based on a eudaimonic philosophy.

An examination of the interrelationships of the need variables within the dimensions has also contributed to literature on having a calling at work and, in particular, what a calling looks like for teachers. The Person-Profession Alignment dimension indicated that a calling was about realising inner values at work and choosing behaviours and decisions in the workplace which reflect these, rather than making other-focused contributions. Developing others was more likely to be a result of wanting to forge relationships with others in the workplace and was part of the

Relations at Work dimension. Pro-social actions may be part of the give and take of developing relationships at work, rather than being indicative of a calling. This has raised an interesting distinction which is not always made in either the teaching (Lobene and Meade, 2013) or general literature (Dik and Duffy, 2009). This thesis has argued that the pro-social aspect of a calling is argued to be less altruistic than the literature suggests, and may be about the give and take of building relations with others.

9.2.2 What orientation to work and life leads to optimum levels of need satisfaction?

The model in this study indicates that a balanced work-life orientation facilitates the satisfaction of needs in work and life which in turn leads to wellbeing. Hypothesis 2a predicts that needs are most satisfied when work-life orientation is balanced. The findings confirmed this hypothesis but also provided insight into how work-life orientation is associated with need satisfaction when orientation is not balanced. Hypothesis 2b predicted that wellbeing is optimised when there is a balanced work-life orientation and the findings confirmed this. Hypothesis 2c predicted that wellbeing is explained by the satisfaction of needs in work and life but the findings indicated that only Professional Development, Personal Acceptance and Work-Life Interface had an effect on wellbeing.

This study provided insight into the pattern of need satisfaction in work and life and how teachers' needs should be satisfied in each domain for wellbeing. It has brought together the life balance and work-life balance literatures to investigate how needs should be satisfied in work and life. Following studies which show that satisfying needs across multiple domains will result in wellbeing (Matuska, 2010; Sheldon et al., 2010; Milyavskaya et al., 2009) this study specifically considered need satisfaction across work and life. The findings have provided greater insight into how energy should be directed to both domains and which need dimensions in work and life should be satisfied.

Teachers can be highly committed (Nias, 1999) but are also prone to burnout (Fernet et al., 2012). This investigation has contributed to an understanding of this issue by providing an insight into the implications if teachers do not satisfy needs in both

work and life. By not considering need satisfaction in work *and* life, the focus of the need satisfaction in work literature (e.g. Bakker and Bal, 2010; Van den Broeck et al, 2010; Bakker and Demerouti, 2007) has not considered the impact need satisfaction in the workplace can have on the life domain or the effects of neglecting the life domain to satisfy needs in the work domain. This study cautions against the dangers of focusing primarily on the workplace as a source of need satisfaction as this is unlikely to maintain wellbeing. It indicates that the satisfaction of certain life needs is important to maintain, regardless of work-life orientation. This thesis also makes a contribution by showing that devoting more time to work may not increase the satisfaction of these needs, as was expected.

The risk of teachers focusing on the work domain to satisfy needs is further emphasised by considering which dimensions explain wellbeing. The findings showed the dimensions of Professional Development, Personal Acceptance and Work-Life Interface as having the greatest effect on wellbeing. This contributes to an understanding of where a teacher can focus when attempting to increase wellbeing. The Professional Development dimension was the only group of work needs which had an effect on wellbeing and was shown to increase only positive emotions. Concentrating on the work domain to increase wellbeing could therefore be limited as it may be difficult to sustain continual development to boost positive emotions. While growth and learning can increase workplace wellbeing for employees (Bakker and Demerouti, 2007), this study cautions against using the work domain as a primary means of boosting general wellbeing. Other dimensions have a broader impact on wellbeing and Personal Acceptance, in particular, can be sustained despite a high work orientation. This dimension may offer need satisfaction which is more within an individual's control.

9.2.3 How do (a) promotion (b) tenure in role (c) age and (d) gender influence work-life orientation, need satisfaction, and wellbeing?

Life and career stage were argued to affect the extent to which an individual would be able to satisfy needs in work and life (H3a – d). H 3a was unsupported, whereby need satisfaction increased for promoted staff, promotion was positively associated with wellbeing and did not have any effects on work-life orientation. H3b was also unsupported as no effects were found from role tenure. H 3c was unsupported as

increased age was associated with less negative affect but had no other effects. H 3d was partially supported as women in this study had higher wellbeing than men, as predicted. However, women also had a higher orientation to work than men and there was no effect of gender on need satisfaction.

The literature on life and career stages on work-life orientation, need satisfaction and wellbeing is often contradictory and does not provide a clear indication of the associations between these variables. As well as contributing to the current understanding of how career and life stage affects need satisfaction, work-life orientation and wellbeing, this study has specifically highlighted insights into the beneficial effects of promotion for teachers. Being a head teacher is considered to be a challenging and sometimes undesirable role (MacBeath, 2011), despite the autonomy offered by the job (MacBeath et al., 2009). The findings confirm that promoted staff may have greater control over their environment, but provide greater insight in relation to this level of staff being better able to satisfy needs. Promoted roles may also be intrinsically rewarding and meaningful, explaining the greater presence of meaning in life that promoted staff experience. This is despite there being no suggestion in the findings that promoted staff tend to direct more energy to work than non-promoted teachers. This provides further insight and encouragement to teachers who have the capability to become heads but who may be cautious about taking on a role which moves away from the core activity of teaching.

9.2.4 What are the most significant enablers and challenges in achieving / maintaining satisfied needs in work and life?

Contextual enablers and challenges are also argued to have an effect on the ability to satisfy needs. Research question 4 asks: What are the most significant enablers and challenges in achieving / maintaining satisfied needs in work? The most significant enablers for work need satisfaction were the support of others, availability of resources, availability of development, a conducive working environment and the most significant challenges in achieving / maintaining satisfied work needs were expectations of others, dealing with change and working environment. Research question 5 asks: What are the most significant enablers and challenges in achieving / maintaining satisfied needs in life? The most significant enablers for life need satisfaction were the support of others, opportunities to support others, opportunities

to transition to and from the life domain and the most significant challenges in achieving / maintaining life needs were the support of others but also having to support others. In addition to impacting on the needs which were satisfied, there was also evidence to show that enablers and challenges could directly affect work-life orientation which in turn affects need satisfaction.

While enablers and challenges in the context of teaching have been investigated generally, there is less specific understanding of how enablers and challenges affect need satisfaction. This study has considered the effects on need satisfaction, but also shows that the enablers and challenges can affect work-life orientation, which in turn impacts on need satisfaction.

Firstly, the findings of this study demonstrate how contextual factors can affect need satisfaction; challenges or enablers in a single domain may affect need satisfaction (for example, the availability of development opportunities in work). However, there were also examples of cross-domain enrichment whereby the challenges or enablers in one domain could minimise challenges in another domain (e.g. the intensity of work providing respite from dealing with family challenges). In particular, this study indicates that being able to manage work and life may not be sufficient if it involves activities which are not satisfying needs. While teachers reported being able to manage their work and life, they had to put effort in to doing this and could become frustrated with work-life interference. The findings of this study indicate the importance of satisfying needs in both domains to maintain satisfaction with both work and life. This has wider implications for employee wellbeing strategies such as flexible working, which could simply move the work into another domain.

Secondly, the findings also caution against over-satisfying needs. Where needs were satisfied in both domains (for example, relationship needs could be satisfied by caring for both their own children and pupils) examples from the participants indicated that this could cause strain where work interfered with family needs. The findings discussed not wanting to let pupils down and feeling a sense of guilt for not being available to them. The findings suggest that too strong a desire to meet the needs of pupils may be to the detriment of others that teachers care for and risks

over-committing to work. Over-commitment may be facilitated by too great a focus on satisfying Relations in Work to the detriment of other dimensions.

Thirdly, the findings suggested that different domains can enable need satisfaction at different life stages. This extends the concepts of career and professional life stages (Day et al., 2007; Huberman, 1993) by suggesting that engagement with the work domain may be facilitated by the needs which it can or cannot satisfy. The findings suggested there may be different key stages in life where a teacher may choose to either orientate to work (returning after having a family) or to life (retirement) because different domains may satisfy different needs. The facilitation of need satisfaction in the work domain may be sufficient for teachers to be willing to accept the challenges of work-life interference. Subsequent opportunities to satisfy needs in the life domain as teachers reach the latter stages of their career may then encourage them to leave the profession. These changes in need satisfaction opportunities can provide some explanations for the differences in priorities at different career and life stages, but also provide insight into the importance of need satisfaction in attracting and retaining teachers in the job.

This study also indicates the importance of having workplace processes which allow the flexibility to increase orientation to work or life. This will better enable employees to ensure that their preferred needs are satisfied. The findings suggest that it may either benefit an organisation from having more engaged employees (those who wanted to return to work) or will allow employees who wish to engage more in life to be able to do so. The retired respondents in this study did not appear to be disengaged with the job in latter stages (although they did lack vigour) and increasing the capacity to satisfy needs in the life domain could encourage experienced employees to remain in their role.

Fourthly, the study expands the importance of the support of others beyond colleagues and leaders in work. Other relationships were reported to support teachers, such as working with parents to facilitate resources and support for their children. This has more general implications for need satisfaction studies in the workplace (e.g. Van den Broeck et al, 2010) which do not tend to consider relationships beyond those with colleagues.

Finally, the findings provide an insight into the effects of recent curricular change in a Scottish primary education context and how this can prevent or enable need satisfaction. There is evidence in this study to suggest that where the changes are desired and satisfy needs, these changes may be considered to be positive. This has policy implications in terms of how the curricular changes are implemented. Highlighting benefits to teachers in terms of how their work needs can be satisfied, particularly those in the Relations in Work dimension, may help to avoid the negative impact of change. The study suggests that this may be particularly important in the case of Scottish primary education due to the curricular changes which have been made. Teachers are being given greater autonomy and input into the development of the curriculum as well as opportunities to develop (Donaldson, 2010). However, factors such as workload and children's behaviour raised in this thesis may detract from these potential opportunities for development.

9.3 Limitations and Further research

While this thesis has developed an understanding of how needs in work and life can be satisfied for wellbeing, there is scope for further research in this area. This section highlights areas for future research.

This study considered whether energy was directed to either the work or life domain, following Marks and MacDermid (1996), in order to understand which orientation to work and life was likely to optimise need satisfaction and wellbeing. However, the study did not investigate how individuals define a balanced orientation and further research is required to understand this. Studies on need satisfaction have tended to be quantitative (e.g. Sheldon et al, 2010; Milyavskaya et al, 2009) as have previous investigations of how energy is distributed across domains (Marks and MacDermid, 1996) and further qualitative research is required to understand what a balanced work-life orientation means to teachers and other employees.

Secondly, it would be useful to further investigate what it means to have a calling to work, both in teaching and employment in general. This study suggested that a calling could have a potential negative impact on wellbeing, by reducing the focus on satisfying life needs. It would be useful to better understand the circumstances in which this can happen. Teachers' motivations have already been identified as

requiring further investigation (Bullough and Hall-Kenyon, 2012) and specific research is required into what it means to have a calling, particularly in relation to the impact this may have on the life domain. For example, further investigation of the negative effects of over-commitment to work (Bakker and Bal, 2010) could provide a greater understanding of how satisfying workplace needs is associated with satisfying life needs and general wellbeing.

Thirdly, further development of the Work-Life Need Satisfaction Instrument is required. The seven dimensions which have emerged have been shown to have a good level of face validity, particularly when compared with the literature, and provide a useful initial understanding of how needs are satisfied across work and life. The next step in the development of this instrument would be to further refine the variables it contains. For example, it would also be useful to include work-life and life-work enrichment variables to consider whether meeting the needs in one domain enhances the other domain.

The homogeneous sample used in this study means that generalising to a wider population must be made with caution. Discrete occupational groups are used by other researchers to develop a general understanding of need satisfaction (Bakker and Bal, 2010; Hakanen et al., 2008) and the variables used in the study have been developed from a universal set of needs (Finnis, 2011). However, a refined Work-Life Need Satisfaction Instrument will require to be tested on a larger sample of primary teachers using confirmatory factor analysis and further longitudinal testing is required to check the stability of results over time. Once the scale has been refined, it will be useful to test it on teachers outside Scotland and outwith primary schools, before moving onto other professional populations. While Chapter 8 provided evidence which indicated that the findings may be applicable to other groups of employees, Klassen et al (2012) suggest that different occupations may satisfy needs in different ways. A comparison with other occupations would therefore be useful.

A limitation of the need satisfaction literature which focuses on *either* the work or life domain is the assumption that an individual will want to maximise all needs in that domain. This study suggested that need satisfaction in work and life showed more subtle associations with wellbeing and that there could be a danger of

attempting to maximising satisfaction of needs in a single domain. A greater understanding is required of when a need becomes over-satisfied.

It would also be useful to directly investigate the way in which need satisfaction is associated with performance. While wellbeing has been argued to be a proxy for performance in this thesis, it would be useful to extend the research to a direct consideration of satisfying needs in work and life in relation to employee effectiveness.

Finally, longitudinal investigations would also be beneficial. This study has shown that satisfying needs in both work and life has the greatest association with wellbeing, but has also indicated that individuals may seek to satisfy different needs at different points in life. Changes in how teachers' work and life impact on their effectiveness have been considered (e.g. Day 2008), and investigations of whether patterns of need satisfaction change over time may help to explain these changes. For example, burnout fluctuates at different times of years both for teachers (Schaufeli and Enzmann, 1998; Esteve, 1989) and other individuals (Westman and Eden 1997) and this may be as a result of being able to satisfy needs in work and life at different points in time. If patterns of need satisfaction do change, then it will be useful to consider why this is the case.

9.4 Chapter Summary

This thesis has shown how needs can be satisfied across work and life to optimise the wellbeing of a group of Scottish primary teachers. It has identified various dimensions which contribute to the wellbeing of employees and has provided evidence of the effects of life and career stage, enablers and challenges. In order to attract and retain employees to a profession, it is important to understand how employees can make individual choices which positively affect their wellbeing and how managers and policy makers can implement processes which sustain need satisfaction and wellbeing. Given the limited resources that both the employee and organisation have to address wellbeing, this study provides an insight into the aspects to consider to ensure need satisfaction and wellbeing in work and life.

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Appendices

Appendix 1: Interview Protocol for Teachers

Interview Protocol

Introduction

Thank-you for agreeing to participate in this study. My research is looking at how goal setting behaviours affects the success of teachers' success and wellbeing. Please don't worry about trying to give me a 'right' answer as I am interested in your own personal experience and thoughts.

Just to remind you, I will be making an audio recording and you are free to choose not to answer any questions and can withdraw from the interview or withdraw your data at any point. The data will be used anonymously, but I will use direct quotes in my research. I will be asking questions which consider both your working and personal life. If you feel any questions are too intrusive, please feel free not to answer.

First of all I'd like to understand the key events that have happened in your life from the point at which your career started until now. Please look at the Significant Life Events diagram and map 2 highs and 2 lows which have taken place in that timeframe.

Part A

1) Tell me about your decision to become a teacher.

    1a Why did a career in teaching appeal to you?

    1b What were your intentions for your career as a whole?

2) Did anything or anyone help you with achieving your career intentions?

    2a What were the implications of this?

3) Did anything or anyone prevent you from achieving your career intentions?

    3a What were the implications of this?

4) In retrospect, would you change anything about your intentions for your career?

Part B

5) Tell me about your first/ second high. (Then 'Tell me about your first/ second low).

    5a Why was it significant?

    5b How did it come about (was it intended)?

    5c Did anything prevent you from achieving the outcome of this event as you had intended?

6) What were the effects of this event on your career?

7) Tell me about your emotions during this event.

8) Tell me about the conditions of your life during this event and how satisfied you were with them, if at all.

9) Would you change anything about how you approached this event?

Part C

10) Considering all the events we have discussed so far, in what ways (if at all) have they contributed to any meaning in life or search for meaning?

11) Do you consider your current role to be a vocation?

       If so, why?

       If not, why not?

       11a Has this always been the case?

12) What do you now value most in your career?

12a is this different to earlier times in your career? If yes, in what ways? If not, why do you think this is?

12b How do your values fit with those of your school/ profession?

12c is this the same or different from what you value most in life?

12d do you have any values that you would not compromise?

13) Thinking about all that we have discussed today, in retrospect, would you change anything about your intentions for your life as a whole?

Have you experienced any competing intentions in your life?

14) Do you feel you have given a fair picture of yourself?

15) What are your feelings about this interview and all that we have covered?

Thanks again for participating in this interview. I plan to transcribe our conversation. I will send you a copy once it is complete which you can edit or change if you feel any aspect of it does not reflect a picture of you. You can also check to make sure that the transcription is anonymous so that your colleagues and friends will not be able to identify you. We can meet again if you would like to discuss the outputs of the questionnaires you completed earlier or if you would like any information on the analysis of your data or the study as a whole.

Appendix 2: Interview Protocol Stakeholders

Introduction

Thank-you for agreeing to participate in this study. The purpose of this interview is to gather some background information on a study of primary teachers and primary head teachers, aged 46 – 65, and the behaviours that are associated with their success and happiness. Just to remind you, I will be making an audio recording and you are free to choose not to answer any questions and can withdraw from the interview or withdraw your data at any point. The data will be used anonymously, but I may use direct quotes in my research and they will be identified as stakeholder views.

1. What does a successful classroom teacher look like?

2. Thinking about non-promoted classroom primary teachers in the latter stages of their career (aged 46 – 65), what are their intentions for their careers?
   a. Is this likely to have been their intention throughout their career?
   b. Is there anything that prevents classroom teachers from achieving their intentions?

3. How well do classroom teachers balance their professional lives with their personal lives?

4. What makes classroom teachers happy?
   a. Do they tend to have a sense of vocation?
   b. What brings meaning to their career or lives, i.e. gives them a sense of vocation?

5. What dies a successful head teacher look like?

6. Thinking about head teachers in the latter stages of their career (aged 46 – 65), what are their intentions for their careers?
   a. Do head teachers intend to obtain their head teacher role?
   b. Is there anything that prevents head teachers from achieving their intentions?

7. How well do head teachers balance their professional lives with their personal lives?

8. What makes head teachers happy?

     a.   What brings meaning to their career or lives, i.e. gives them a sense of vocation?

9. Thinking about teachers and head teachers who are aged between 46 and 65, what do you think the main changes have been to the environment in which they teach now, compared to previous teaching environments they will have worked in?

10. What values and behaviours are teachers/ head teachers expected to exhibit in schools?

     a.   How important is it that the teacher/head teacher's own values are aligned with the school values?

     b.   How have these values and behaviours changed since the introduction of *Curriculum for Excellence*?

11. Do you have any other comments on how a teacher or head teacher's goal setting behaviours might affect their success or happiness?

Thanks again for participating in this interview. I will provide you with a copy of the transcript. Please let me know if there is any information in the transcript that you don't want included in the study. If you have any questions about this interview please feel free to contact me.

Appendix 3: Survey

Mhairi Wallace is a PhD student from the Human Resource Department at the University of Strathclyde.

Contact details: Email: XXXXX, Telephone: XXXXX

What is the purpose of this investigation?
The aim of the study is to look at the career and life choices made by Primary teachers and the outcomes of these choices, both professionally and personally.

Do you have to take part?
Participation is voluntary. It is your decision to take part in the survey or not. You can stop completing the survey at any time and choose not to return it without giving a reason.
The survey will look at how you balance your work and life. It will also ask you questions about your emotions, how satisfied you are with your life and work and feelings of meaning in life and work. Additional personal information (e.g. gender, age, job role etc) will also be requested.

What are the potential risks to you in taking part?
The survey will cover questions about both your professional and private life and will also ask questions about your emotions and satisfaction with work and life. The survey could ask questions that make you feel uncomfortable or that bring up memories of parts of your life that are uncomfortable.

What happens to the information in the project? Information obtained from the survey will be kept anonymous, but it will be possible for the researcher to identify your local authority. Individual survey results will be grouped together and will only be published in collated formats. Collated data will be used in a PhD thesis and may also be published in academic journals. A summary of the research findings or presentations may also be made available to your local authority. Raw data will be destroyed once the PhD study is complete.

All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998. This investigation was granted ethical approval by the University of Strathclyde ethics committee.

Thank you for reading this information – please email Mhairi Wallace if you are unsure about what is written here. Outputs from the collated findings can be provided on request. You will be given the option to request this information at the end of the survey.

If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or further information may be sought from, please contact the Chair, Ethics Committee, Department of Human Resource Management, Strathclyde University on XXXXX

Consent

I confirm that I have read and understood the information for the above project and the researcher has answered any queries to my satisfaction (if relevant).

I understand that my participation is voluntary.

I understand that the data recorded in the investigation will remain confidential and no information that identifies me will be made publicly available.

I consent to being a participant in the project

I hereby agree to take part in the above project (If you agree, please tick the box below)

❍ Yes

If you do not agree to take part in the project, there is no need to return this survey and thank-you for your attention.

Q1 What is your job title?

- ○ Head Teacher
- ○ Depute Head Teacher
- ○ Principal Teacher
- ○ Teacher
- ○ Other

If you have chosen other, please provide your job title.

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Q2 How many years have you worked at your current level?

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Q3 What is your working pattern?

- ○ Full time
- ○ Part time
- ○ Other

If you have chosen other, please indicate your working pattern.

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Q4 What is your age?

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Q5 What is your gender?

- ○ Male
- ○ Female

Q6 For the next set of questions you should think about your life as a whole. The first scale looks at what you think about your life. Please indicate how much you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
In most ways my life is close to my ideal.	○	○	○	○	○	○	○
The conditions of my life are excellent.	○	○	○	○	○	○	○
I am satisfied with my life.	○	○	○	○	○	○	○
So far I have gotten the important things I want in life.	○	○	○	○	○	○	○
If I could live my life over, I would change almost nothing.	○	○	○	○	○	○	○

Q7 Think about your life as a whole. Please think about what you have been doing and experiencing during the past 4 weeks. Then report how much you experienced each of the following feelings, using the scale below.

	Very rarely or never	Rarely	Sometimes	Often	Very often or always
Positive	○	○	○	○	○
Negative	○	○	○	○	○
Good	○	○	○	○	○
Bad	○	○	○	○	○
Pleasant	○	○	○	○	○
Unpleasant	○	○	○	○	○
Happy	○	○	○	○	○
Sad	○	○	○	○	○
Afraid	○	○	○	○	○
Joyful	○	○	○	○	○
Angry	○	○	○	○	○
Contented	○	○	○	○	○

Q8 Think about your life as a whole. Please take a moment to think about what makes your life feel important to you. Please respond to the following statements as truthfully and accurately as you can, and also please remember that these are very subjective questions and that there are no right or wrong answers. Please answer according to the scale below.

	Absolutely Untrue	Mostly Untrue	Somewhat Untrue	Can't say true or false	Somewhat True	Mostly True	Absolutely True
I understand my life's meaning.	O	O	O	O	O	O	O
I am looking for something that makes my life feel meaningful.	O	O	O	O	O	O	O
I am always looking to find my life's purpose.	O	O	O	O	O	O	O
My life has a clear sense of purpose.	O	O	O	O	O	O	O
I have a good sense of what makes my life meaningful.	O	O	O	O	O	O	O
I have discovered a satisfying life purpose.	O	O	O	O	O	O	O
I am always searching for something that makes my life feel significant.	O	O	O	O	O	O	O
I am seeking a purpose or mission for my life.	O	O	O	O	O	O	O
My life has no clear purpose.	O	O	O	O	O	O	O
I am searching for meaning in my life.	O	O	O	O	O	O	O

Q9 This scale contains words or statements which describe aspects of life that a person might want fulfilled. Some of these aspects may be more or less important to you in relation to the others. Decide the extent to which each statement is important to you and rate it on the scale below.

	Very Unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important
Knowledge	○	○	○	○	○
Excellence and Mastery	○	○	○	○	○
Health and Vigour	○	○	○	○	○
Excitement	○	○	○	○	○
Harmonious relationships	○	○	○	○	○
Family	○	○	○	○	○
Inner peace	○	○	○	○	○
Belief system	○	○	○	○	○
Developing others	○	○	○	○	○
Attaining status	○	○	○	○	○
Achievement	○	○	○	○	○
Freedom	○	○	○	○	○

Q10 Each of the following statements should be considered in relation to your job. Think about each statement and decide to what extent you agree that it is like you.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I receive feedback from others which helps me to understand the needs of my job.	○	○	○	○	○
I know about the wider standards of my profession.	○	○	○	○	○
My job allows me to develop my skills.	○	○	○	○	○
I am able to make improvements in my workplace.	○	○	○	○	○
My job adversely affects my health (physical or mental).	○	○	○	○	○
My job gives me energy.	○	○	○	○	○
My workplace is a safe place.	○	○	○	○	○
I am in secure employment.	○	○	○	○	○
I have good relationships with others at my work.	○	○	○	○	○
I am active in my school community.	○	○	○	○	○
I balance the needs of my family with the needs of my job.	○	○	○	○	○
I switch off from my job in my life outside my work.	○	○	○	○	○
My decisions at work are true to my feelings.	○	○	○	○	○
My values fit with the values of my workplace.	○	○	○	○	○
My job gives me a sense of meaning.	○	○	○	○	○
I consider my job to be a vocation.	○	○	○	○	○
I develop others in my workplace.	○	○	○	○	○

I meet the needs of the children in my school.	○	○	○	○	○
I am appreciated by others in my workplace.	○	○	○	○	○
I work in a profession which is respected by others.	○	○	○	○	○
I achieve the work goals I set for myself.	○	○	○	○	○
I am good at what I do in comparison to others.	○	○	○	○	○
My behaviours at work reflect my own views and opinions.	○	○	○	○	○
I care about what other people in my workplace think about me.	○	○	○	○	○

Q11 Each of the following statements should be considered in relation to your personal life outside of work. Think about each statement and decide to what extent you agree that it is like you.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I build my knowledge about the world around me.	❍	❍	❍	❍	❍
I understand the needs of others in my community.	❍	❍	❍	❍	❍
The recreational activities which I pursue allow me to develop my skills.	❍	❍	❍	❍	❍
I am able to make improvements in my life.	❍	❍	❍	❍	❍
My life outside my work adversely affects my health (physical or mental).	❍	❍	❍	❍	❍
My life outside my work gives me energy.	❍	❍	❍	❍	❍
I live in a safe community.	❍	❍	❍	❍	❍
I am financially secure.	❍	❍	❍	❍	❍
I have good relationships with others in my personal life.	❍	❍	❍	❍	❍
I am active in my community.	❍	❍	❍	❍	❍
I have good relationships with my family.	❍	❍	❍	❍	❍
I am in a committed relationship.	❍	❍	❍	❍	❍
My decisions in my personal life are always true to my feelings.	❍	❍	❍	❍	❍
My values fit with the values of my community.	❍	❍	❍	❍	❍
I have a strong belief system.	❍	❍	❍	❍	❍
I express and live my values.	❍	❍	❍	❍	❍
I am appreciated by others in my personal life.	❍	❍	❍	❍	❍

I am respected by others in my personal life.	○	○	○	○	○
I achieve the life goals I set for myself.	○	○	○	○	○
I am good at what I do in my personal life in comparison to others.	○	○	○	○	○
My behaviours in my personal life reflect my own views and opinions.	○	○	○	○	○
I care about what other people in my personal life think about me.	○	○	○	○	○
I help others in my personal life to learn and improve.	○	○	○	○	○
I meet the needs of my children (choose strongly disagree if you do not have children)	○	○	○	○	○

Q12 Consider the following questions and for each one rate how you feel overall, where 0 is not at all and 10 is completely.

	0 Not at all	1	2	3	4	5	6	7	8	9	10 Completely
Overall, how satisfied are you with your life nowadays?	○	○	○	○	○	○	○	○	○	○	○
Overall, to what extent do you feel the things you do in your life are worthwhile?	○	○	○	○	○	○	○	○	○	○	○
Overall, how happy did you feel yesterday?	○	○	○	○	○	○	○	○	○	○	○
Overall, how anxious did you feel yesterday?	○	○	○	○	○	○	○	○	○	○	○

Q13 Where is your work/life balance currently?

○ Very weighted towards work.
○ Weighted towards work.
○ Balanced between work and life.
○ Weighted towards life.
○ Very weighted towards life.

Q14 If you wish to receive a summary of findings when this study is complete, please enter your email address. Otherwise, leave the box blank. Please be aware that entering your email address will mean that you and your individual data can be identified by the researcher. If you would prefer your data to remain entirely anonymous, you can email Mhairi Wallace to request a copy of the results.

Thank-you for taking the time to complete this questionnaire.

Please return to:
Mhairi Wallace
Department of Human Resource Management, University of Strathclyde, XXXX XXXX XXXX

Appendix 4: Multiple Regressions for Dimensions and Wellbeing

Table 15 Multiple Regression - Life Satisfaction as the Dependent Variable

Effects of Needs on Life Satisfaction								
Variables	Life Satisfaction (DV)	Personal Acceptance	Achievement	Work-Life Interface	Personal Development	B	Beta	Sr^2 (unique)
Personal Acceptance	.50					.73	.37**	0.09
Achievement	.39	.55				.25	.09	
Work-Life Interface	.40	.22	.28			.63	.28**	0.09
Personal Development	.33	.40	.42	.38		.13	.04	
					Intercept =	-6.28		
Means	26.37	30.33	14.92	8.51	11.35			
Standard Deviations	5.92	3.02	2.11	2.65	1.72		R^2 =	.34[a]
							Adjusted R^2 =	.33
							R =	.59

**p<.001

[a] Unique variability = .18; shared variability = .16

Table 16 Multiple Regression - Positive Affect as the Dependent Variable

Effects of Needs on Positive Affect							
Variables	Positive Affect (DV)	Personal Acceptance	Professional Development	Work-Life Interface	B	Beta	Sr^2 (unique)
Personal Acceptance	.33				.220	.19*	
Professional Development	.42	.25			.270	.27**	0.06
Work-Life Interface	.47	.21	.31		.451	.34**	0.10
				Intercept =	6.48		
Means	23.27	30.30	23.33	8.47			
Standard Deviations	3.43	3.00	3.44	2.61		R^2 =	.34ᵃ
						Adjusted R^2 =	.33
						R =	.58

**p<.001

*p<.01

ᵃ Unique variability = .17; shared variability = .17

Table 17 Multiple Regression - Negative Affect as the Dependent Variable

Effects of Needs on Negative Affect						
Variables	Negative Affect (DV)	Work-Life interface		B	Beta	Sr^2 (unique)
Work-Life interface	-.44			-.62	-.44**	0.20
			Intercept =	19.88		
Means	14.58	8.51				
Standard Deviations	3.74	2.65			R^2 =	.20[a]
					Adjusted R^2 =	.19
					R =	.44

**p<.001

[a] Unique variability = .2

Table 18 Multiple Regression - Presence of Meaning in Life as the Dependent Variable

Effects of Needs on Meaning in Life Presence									
Variables	Meaning in Life - Presence (DV)	Personal-profession Alignment	Personal Acceptance	Professional Development	Achievement	Work-life Interface	B	Beta	Sr^2 (unique)
Personal-profession Alignment	.36						.20	.15	
Personal Acceptance	.51	.29					.48	.36**	0.09
Professional Development	.34	.56	.25				.13	.11	
Achievement	.37	.19	.55	.17			.17	.09	
Work-Life Interface	.30	.23	.21	.31	.29		.21	.14	
						Intercept =		2.89	
Means	28.82	19.83	30.30	23.33	14.92	8.47			
SDs	4.017	2.92	3.00	3.44	2.12	2.61		R^2 =	.35[a]
								Adjusted R^2 =	.33
								R =	.59

**p<.001 [a] Unique variability = .09

Appendix 5: Chi Square Tables

Table 19 Chi-Square data to compare different groups with work-life balance

			Orientation to Work	Balanced Orientation	Orientation to Life	Total
Level of Post	Promoted	n	52	14	3	69
		Expected n	46.70	17.90	4.50	69
		%	30.60	8.20	1.80	40.60
	Unpromoted	n	63	30	8	101
		Expected n	68.30	26.10	6.5	101
		%	37.10	17.60	4.70	59.4
Tenure	<=2 Years	n	25	7	0	32
		Expected n	22	8	1.90	32
		%	15	4.20	0	19.20
	>2 Years	n	90	35	10	135
		Expected n	93	34	8.10	135
		%	53.90	21	6	80.80
Age	<= 46	n	53	21	6	80
		Expected n	54.50	20.70	4.80	80
		%	31.90	12.70	3.60	48.20
	47+	n	60	22	4	86
		Expected n	58.50	22.30	5.20	86
		%	36.10	13.30	2.40	51.80
Working Pattern	Full time	n	107	31	9	147
		Expected n	100	37.40	9.60	147
		%	63.30	18.30	5.30	87
	Part time	n	8	12	2	22
		Expected n	15	5.60	1.40	22
		%	4.70	7.10	1.20	13
Gender	Male	n	6	6	3	15
		Expected n	10.10	3.90	1	15
		%	3.50	3.50	1.80	8.80
	Female	n	109	38	8	155
		Expected n	104.90	40.10	10	155
		%	64.10	22.40	4.70	91.20